Instructions for use
Symbols

Symbols displayed on the product and/or used in this manual:

- **WARNING!**
  - Risk of injury

- **ATTENTION!**
  - To prevent damage occurring

- **WARNING!**
  - Risk of electric shock!

- **HOT SURFACES!**
  - Risk of burns

- **Consult instruction for use**

- **Call service**

- **Do not dispose of with normal waste**

- **General explanations, without risk to people or objects**
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1. Introduction

ABOUT THIS MANUAL
This manual contains the Instructions for Use of the W&H sealing machine SealVal². All drawings, images and texts contained in this manual are the property of the manufacturer. All rights reserved. Even partial duplication of drawings, images or text is prohibited. The information contained in this document is subject to change without prior notice.

FOR YOUR SAFETY AND THE SAFETY OF YOUR PATIENTS
The purpose of this manual is to provide you with information about the W&H sealing machine SealVal² to ensure:

- proper installation and set-up;
- optimal use;
- safe and reliable operation;
- regular maintenance and servicing.

This manual forms an integral and essential part of the product and must be stored carefully close to the device, or in a place which is familiar to everyone involved in using the device, for an easy and quick reference.

Please read carefully the safety information in Chapter 3.

INTENDED USE
SealVal² is a device for the thermosealing and cutting of rolls and bags made of laminated paper/polypropylene or other thermosealable material. The device monitors, saves and displays the data and results of the sealing process for validation. The sealing complies with the following standards: EN 868-5 and ISO 11607-2.

The sealing device was designed to be used as part of an EN ISO 17665-1 compliant "sterilization system" (Sterilization of sanitary products, damp heat).
Introduction

GENERAL WARNING
The device is for professional use only and must be used by qualified and trained people only.

There are two figures that may operate (either for use and for maintenance) with the sealing machine:

- The OPERATOR is the person who operates the device actually, for the intended use;
- The RESPONSIBLE AUTHORITY is the person (or group of people) who is responsible for the use, the maintenance and the operators’ education and training. The responsible authority has also legal responsibility for the fulfilment of all installation and operation requirements.

The manufacturer cannot be held responsible for any malfunction, damage, and personal injury, whereas they are caused by improper use, handling, installation, maintenance, and for any other circumstances which are not in accordance with the provisions given in this manual.

Responsibility of the manufacturer
The manufacturer can only accept responsibility for the safety, reliability and performance of the product when the product itself is installed, used and serviced in accordance with the instructions for use.

Servicing by unauthorized persons invalidates all claims under warranty and any other claims.
2. Unpacking

GENERAL ADVICE ABOUT DELIVERY
Upon receipt, check the shipping box and package for visible damage.
Open the packaging and check:
- That the goods supplied complies with the technical specification;
- that there is no visible damage.
In case of any damage, contact your dealer and/or the carrier immediately.

The packaging of the product is environmentally friendly and can be disposed of by industrial recycling companies. However, we recommend to keep the original packaging should you ever have to ship or transport the appliance.

Contents of the package

Sealing unit
Roll holder
Roll holding tube (2 pcs)
Roll stopper (4 pcs)
Power cord
Allen key
Fuses (2 pcs)
Instructions for use
Conformity declaration
Safety information

NOTE: the Ethernet cable is not included
3. Safety advice

GENERAL SAFETY ADVICE
Read the instructions for use carefully before installing, connecting, using and servicing the device.
The device must be used strictly in accordance with the instructions and the safety advice contained in this manual.
Using the device in a different way might impair the safety or the integrity of the product, impairs the warranty of the product and
relieves the manufacturer from any responsibility about the safety, reliability and performance of the product.

THERMAL HAZARDS
The welding rod automatically begins to heat to high temperature as soon as the sealing machine is switched on — risk of burns!
Always wear appropriate PPE (e.g. gloves) during use and when carrying out maintenance of the device.
If you have to leave the sealing machine unattended in hot conditions, always place a “WARNING — HOT APPLIANCE” sign, to warn other
people that might walk up to the appliance.

ELECTRICAL HAZARDS
Do not pour water or any other liquids over the device [risk of electrical short circuits].
Switch off the device and unplug the mains cable before cleaning, inspecting, carrying out maintenance or servicing the device.
Ensure that the power plug the sealing machine is connected to is properly grounded, and fulfills all applicable safety requirement as
well as any other requirement.
Do not disassemble the sealing machine nor remove any cover. Dangerous voltage inside.
Use only the power cord provided by the manufacturer.

ENVIRONMENTAL HAZARDS
The sealing machine must be operated in a clean and dry room / environment.
Do not operate the sealing machine in presence of explosive or flammable gases, vapors, liquids or solids.

TAMPERING
Do not remove the name plate nor any labels from the device.
Repairs, maintenance and service must be carried out by authorized service providers, always using genuine spare parts only.
OPERATION ADVICE
Keep your fingers / hands away from the welding area when the sealing machine is ON or just after switching it OFF.
If you have to access that area, wait until the unit has completely cooled down.
Do not insert your fingers under the protection cover of the welding area when the welding lever is operated.
Do not insert your fingers or any other object into the cutting area.

![Diagram](image.png)
4. Installation

Overall dimensions (mm)

Package dimensions:
A = 560 mm
B = 500 mm
C = 380 mm
Total weight: 10.2 kg
Installation

INSTALLATION WARNINGS:

- The device must be placed on an horizontal even surface, in a well ventilated room.
- Leave enough operational space around the device. Ensure enough space to access and disconnect the power supply cord.
- Prevent contact between the product and water: do not install the device close to sinks, water taps or in places subject to water sprays or spillage.
- Keep the device away from heat sources.
- Ensure that the power cord is not overbent, crimped or stressed.
- Use a shielded Ethernet cable.

1] Carefully take the sealing unit and the roll holder out of the package.

2] Mount the roll holder on the sealing machine by sliding it onto the metal guides.

NOTE: If you want to install the roll holder on the wall, see chapter WALL INSTALLATION OF THE ROLL HOLDER ahead

3] Choose the distance between the machine and the roll holder according to your needs, then fasten the screws [1 and 2] with the Allen key provided.
Installation

5) Mount one or two tubes* on the roll holder. Rotate the tubes slightly so that the slots on the tube ends match the reliefs in the tube supports.

   *according to your needs.

6) Connect the power cord.
   The sealing machine is now ready to operate.

7) Optional: connect the Ethernet cable.
ADJUSTING THE ROLL HOLDER

The sealing machine may operate:
- With the roll holder in lower position, and one roll;
- With the roll holder in extended position, and one or two rolls.

To extend the roll holder:
1] Press the two buttons on the side columns of the roll holder;
2] Lift the two extensible columns until the two buttons engage the upper holes.

**NOTE:** for easier adjustment, remove the roll holding tube.

To lower the roll holder:
1] Press the two buttons on the side columns of the roll holder;
2] Push down the two extensible columns until the two buttons engage the lower holes.

**NOTE:** for easier adjustment, remove the roll holding tube.

**WARNING:**
When the roll holder is extended, install the lighter rolls in the upper tube.
Maximum total weight 5 kg.
Installation

WALL INSTALLATION OF THE ROLL HOLDER

Installing the roll holder on the wall permits space saving on your workbench.

For extra space saving, remove the two metal guides underneath the sealing machine, by removing the six Allen screws (see picture).

For this purpose, use the Allen key provided.
1) Install two anchors on the wall. Centre-to-centre 213 mm, screw head 9.5 mm diameter max., screw 5 mm diameter max. Screw down leaving a 13 mm overhang.

**WARNING:** Use suitable anchors for your wall material.

1) Place the roll holder on the wall, matching the rear shaped holes with the protruding screws.

2) Engage the roll holder with the screws by sliding it downwards.

**WARNING:**
When the tube is mounted on the roll holder, the slots on it must match the teeth on the roll holder. If it is the case, rotate it slightly.

**WARNING:**
When the roll holder is wall-mounted, it is better to use it with the column in the shorter position and one tube only. If you use it with extended columns, put the lighter rolls on the external tube. Maximum roll weight 2 kg.
ROLL INSTALLATION
If you use two roll holding tubes:
- The upper tube must unroll downwards (A);
- the lower tube must unroll upwards (B).

ROLL PATH
Route the paper roll below the guide rod.
The polypropylene side may lay either up or down.
Only if you use rolls with gussets, the polypropylene side must be UP.

ROLL STOPPERS
The roll stoppers provided may be used to prevent random movement of the paper rolls and irregular unrolling of the paper.
1) Fit the roll positioner on the roll holder tube with a small pressure.
2) Slide it close to the paper roll to permit it to get unrolled with small side clearance.
5. Electric connection

Before connecting the sealing machine to the power supply, make sure that:

- the power supply data (voltage, current, frequency, etc.) comply with the data label on the back of the appliance
- the power supply fulfills all applicable standards in the country of use
- the wall socket is properly grounded.

Connect the cord set to the socket provided in the back of the sealing machine.

Connect the power cord to the wall socket.

Use only the cord set provided by the manufacturer.
Do not overbend the power cord and do not lay any object on it.
6. Start-up and setting

CONTROLS AND COMMANDS
The sealing machine is fitted with a mains switch located on the back side, and is controlled through a colour touch – screen.

Switch the sealing machine ON by acting on the mains switch.

WARNING:
Before switching the device ON, make sure that all the installation steps as described in the previous pages of this manual have been completed.

A few seconds after the sealing machine is switched ON, the WELCOME screen appears.

After a short self-test period, the INSTALLATION screen appears.
Confirm the installation by tapping ✔️, or proceed without installing by tapping ✖️.

From this screen you may access to the DATE / TIME SETTING screen (see ahead).

If you confirm the installation, the INSTALLATION screen will no longer appear, and the maintenance counters will start.

Otherwise, the INSTALLATION screen will be shown again.
START screen

SEALING PROCESS SELECTION

- Standard process (pre-set parameters)
- Custom process (parameters set by the user)

Actual time
Actual date
Actual temperature
TEST icon
SETTINGS icon

STANDARD

CUSTOM

Actual temperature: 135°C
CONFIGURATION
From the START screen (see previous page), tap on the CONFIGURATION icon.

Scroll the pages with the UP and DOWN icons to see more configuration options.

If you tap DOWN on the last page, you will be redirected to the top of the list (first page).

Tap on the icon near the item you want to configure.

A configuration screen (see next pages) will be displayed, permitting to set the parameter you chose.

If you tap BACK, you will be redirected to the START screen.
Settings

**LANGUAGE SETTING**
From the START screen, tap CONFIGURATION – LANGUAGE (1). Tap on the language you want to configure (example: English) (2), then confirm by tapping ✅ (3). To exit without changes, tap on the BACK icon (↩️).

**DATE AND TIME SETTING**
From the START screen, tap CONFIGURATION – DATE AND TIME (1). Tap on the figure you want to set (example: minutes) (2), then:
- Change the time (hh/mm) it with UP and DOWN (3)
- Change the date in the CALENDAR screen.
At the end, confirm by tapping ✅ (4). To exit without changes, tap on the BACK icon (↩️).

**USER SETTING**
From the START screen, tap CONFIGURATION – USERS (1).
Enable the user identification function: tap on the switch-shaped icon (1). Green colour = enabled, grey colour = disabled.
By tapping on the USERS icon (2), you access the USER CONFIGURATION screen. Here you may:
- Log yourself as a user: with UP and DOWN highlight your name, then confirm with ✅.
- Add a user: tap on the ADD USER icon (3). From the keyboard, enter the new user’s name / surname, then confirm with ✅.
- Delete a user: with UP and DOWN highlight the user to be deleted, then tap on the DELETE USER icon (4).
To exit without changes, tap on the BACK icon (↩️).
ETHERNET SETTING
Connect the Ethernet port of the sealing machine to a network plug, using a suitable cable.
From the START screen, tap CONFIGURATION. Tap DOWN until the ETHERNET item is displayed. Tap on the switch-shaped icon (1) to enable the function (green colour: enabled - grey colour: disabled).

From the START screen, tap CONFIGURATION. Tap DOWN until the ETHERNET item is displayed. Tap on the switch-shaped icon (1) to enable the function (green colour: enabled - grey colour: disabled). Tap on the ETHERNET icon (2): the configuration screen will be displayed.
If your network supports dynamic IP addresses, enable the DHCP option. This will permit communication between the sealing machine and the network.
If your network does not support dynamic IP addresses, tap on the IP boxes and enter the IP address manually.

STANDBY SETTING
When this function is enabled, the device will enter the STANDBY mode after a certain time (set by the user).
From the START screen, tap CONFIGURATION. Tap DOWN until the STANDBY item is displayed.
Tap on the switch-shaped icon (1) to enable the function (green colour: enabled - grey colour: disabled). To set the time the device will wait before entering the standby mode, tap on the STANDBY icon (2): the configuration screen will be displayed. With the UP and DOWN icons, set the preferred time. Tap BACK (        ) to exit.

OWNER REGISTRATION
This function permits to store in memory the data of the owner.
From the START screen, tap CONFIGURATION. Tap DOWN until the OWNER REGISTRATION item is displayed, then tap on it. A data input screen will be displayed. Tap on each input box and enter the requested data using the keyboard displayed. Tap BACK (        ) to exit.
Other items in the SETTINGS menu

- **CYCLE COUNTER**
  Displays the total number of sealing cycles performed since the last maintenance.

- **MEMORY**
  Displays the memory status.

- **SERVICE (1 and 2)**
  Available for the service technician only (protected by password).

- **INFO**
  Displays some device information (serial number, software version, etc).
  Displays the actual temperature of the heater.
7. Creation of sealed pouches

Switch the device ON.
The sealing machine will start heating up to the pre-heating temperature (135°C).

Select a sealing program (example: STANDARD).

NOTE: if the USERS option is enabled, you will be requested to select [1] and confirm [2] your name from the user list.

Alternatively, tap on the TEST icon and select a sealing test program.
Creation of sealed pouches

The further screen will display the **programmed temperature** and the session number.

Tap on CONFIRM (✓).

The heating phase will start: the screen will show the actual temperature and a heating progress bar.

A red WAIT icon and a inhibition cross will overlap the SEAL icon, to show that sealing is not possible until the programmed temperature is reached.

As soon as the welding rod has reached the programmed temperature, the progress bar and the prohibition icons disappear: now it's possible to seal.
Welding process

WELDING SEQUENCE
1) Pull the paper roll to the desired length.
2) Lower the welding lever and hold it in the low position. The display will show the WELDING message.
3) During the welding time, move the cutting lever to cut the paper roll to the proper length.
4) Wait until an audible BEEP and the message LIFT THE LEVER appears. This informs you that the welding time is finished and the welding is complete. Release the lever.
5) Remove the welded bag.

6) If the programmed welding parameters were complied with, the OK screen will be displayed.

7) ... proceed by sealing as many pouches as you need.

8) At the end of the welding session, tap the LOT icon. The welding session will be closed and the lot data saved on the memory card.
   NOTE: The LOT icon appears after the first welding only.

WELDING ERROR
In case the programmed welding parameters were not complied with, the WELDING ERROR screen will appear.
A suitable icon will show the error type (welding pressure, temperature or time).
Tap on the BACK icon to exit the WELDING ERROR screen.
8. Memory card

The welding lot data are recorded in the SD memory card and may be handled and stored in a PC through a specific software. For more information, visit www.wh.com.

Never delete the files in the memory card using Windows Explorer, because they would be definitively lost. Always handle the data through the specific software.

The manufacturer cannot be held responsible for data loss (from the memory card or from the PC) if the data aren’t properly handled and processed, or if the software is used in improper way.

INSERTING AND REMOVING THE MEMORY CARD
Insert the memory card into the slot (contacts up). To remove it, just pull it out of the slot.

Never use excessive force to insert the card. If you find any resistance, do not force and check the correct verse of insertion.

Always insert and remove the memory card when the device is OFF. The device must operate with the memory card installed. A missing card might cause errors.

If the memory card is removed during a welding session, the session will be interrupted and the MISSING CARD icon will be displayed.
9. Cleaning and maintenance

WARNING

- Before carrying out any cleaning or maintenance task, make sure that the device mains switch is in the OFF position and the power cord is unplugged. Failure to comply with this requirement may cause serious injury to people and damage the device.
- Before carrying out any cleaning or maintenance task, make sure that the device has cooled down.
- Pay attention to the cutting blade during cleaning.
- Before operating the device after cleaning, make sure it is completely dry.

CLEANING THE SEALING MACHINE

Clean the external surfaces with a soft, damp cloth.
Do not use abrasive or corrosive products.

PERIODICAL CHECKS

To take the best advantage of the SealVal2 features, W&H Sterilization suggests to make periodical tests, according to the existing standards in the Country of use, or (if there are no standards) to the internal procedures of the clinic / practice.

Example of periodical check scheme:

- Daily: a peel test
- Weekly: a seal check (see the instructions provided with the “Seal Check” kit).
- Every two years (or every 60.000 welding operations): maintenance at care of an Authorized Service Center.

EXTRAORDINARY MAINTENANCE

All extraordinary maintenance must be carried out by service technicians authorized by W&H Sterilization S.r.l. only.
Refer to the validation standards, guidelines and rules in force in the Country of use.
## 10. Troubleshooting

### WARNING SCREEN

The sealing machine monitors the welding parameters continuously.
In case of anomaly during or at the beginning of a welding session, the following warning screens will be displayed.

<table>
<thead>
<tr>
<th>SCREEN</th>
<th>PROBLEM</th>
<th>DESCRIPTION</th>
<th>SOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="180%C2%B0C" alt="Sealing pressure problem." /></td>
<td>Malfunction detected: possible pressure problem (or problem in the pressure detection system).</td>
<td>Call technical service.</td>
<td></td>
</tr>
<tr>
<td><img src="154%C2%B0C" alt="Temperature problem." /></td>
<td>The user tries to weld, but the programmed welding temperature is not achieved yet.</td>
<td>Wait until the welding temperature is achieved and the WAIT icons in the display have disappeared.</td>
<td></td>
</tr>
<tr>
<td><img src="180%C2%B0C" alt="Sealing duration problem." /></td>
<td>The welding lever was released too early, OR problem in the time measurement system.</td>
<td>Call technical service.</td>
<td></td>
</tr>
<tr>
<td><img src="180%C2%B0C" alt="No program selected." /></td>
<td>The user operates the welding lever, but no welding program was selected.</td>
<td>Select a welding program.</td>
<td></td>
</tr>
<tr>
<td><img src="180%C2%B0C" alt="SD card missing or write – protected." /></td>
<td>A welding session is started, but the memory card is missing, or it is write – protected.</td>
<td>Check that the SD card is present, duly inserted, not write – protected and not faulty.</td>
<td></td>
</tr>
</tbody>
</table>
# Troubleshooting

## WARNINGS DURING OPERATION

<table>
<thead>
<tr>
<th>WARNING</th>
<th>CAUSE</th>
<th>SOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>In spite the welding sequence is complied with, the outcome message is always negative.</td>
<td>Internal heater faulty. Temperature measurement system faulty.</td>
<td>Call technical service.</td>
</tr>
<tr>
<td>![Warning Icon] ![Temperature Icon]</td>
<td>Low pressure on the part during welding due to: - improper operation; - internal fault.</td>
<td>Hold the welding lever lowered to the very end of stroke during the whole welding time. If the problem persists, call technical service.</td>
</tr>
<tr>
<td>![Warning Icon] ![User Icon]</td>
<td>The user lowered the welding lever when the display was still showing the OK screen.</td>
<td>Wait that the welding screen comes back before starting a new welding.</td>
</tr>
<tr>
<td>![Warning Icon] ![Lever Icon]</td>
<td>The welding lever was released too early.</td>
<td>Wait for the BEEP and for the message LIFT THE LEVER before releasing the lever.</td>
</tr>
<tr>
<td>![Warning Icon] ![Lever Icon]</td>
<td>The welding lever was held down too long.</td>
<td>Release the lever as soon as the BEEP is heard and the message LIFT THE LEVER is displayed.</td>
</tr>
<tr>
<td>![Warning Icon] ![Temperature Icon]</td>
<td>Low welding temperature.</td>
<td>Stop the welding session. Switch OFF the device, switch it ON again, and start a new session. If the problem persists, call technical service.</td>
</tr>
</tbody>
</table>
11. Disposal

The product is mainly built from fiber-reinforced polymers, metals and electric / electronic components. The symbol on the side indicates that the product is subject to the WEEE (Waste Electrical and Electronic Equipment) EU Directive. For such products, it is the user’s responsibility to dispose of their waste equipment according to the provisions of the mentioned EU Directive.

In case of disposal, the user shall:
- hand the device over a designated collection point for the recycling of waste electrical and electronic equipment; OR
- (EU only) hand it over the dealer, against purchase of an equivalent device;
- never abandon the product in the environment or in unsecured places;
- always refer to current/applicable laws and rules in the country of use.

The same instructions apply to disposal of all used consumable parts.

Waste sorting, treatment and recovery reduce the use of resources for the production of new equipment, and limit the negative environmental and health effects that are caused by improper waste management.

Abusive dumping exposes the user to the penalties and measures laid down by the law.
# 12. Technical data

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Voltage</strong></td>
<td>200 / 240 V ac, single phase</td>
</tr>
<tr>
<td><strong>Frequency</strong></td>
<td>50 / 60 Hz</td>
</tr>
<tr>
<td><strong>Power</strong></td>
<td>180 W</td>
</tr>
<tr>
<td><strong>Insulation class</strong></td>
<td>I / IPX0</td>
</tr>
<tr>
<td><strong>Fuses</strong></td>
<td>N. 2 – 5x 20 - T 5 A</td>
</tr>
<tr>
<td><strong>Environment</strong></td>
<td>Indoor use only</td>
</tr>
<tr>
<td><strong>Max. altitude</strong></td>
<td>3000 m asl</td>
</tr>
<tr>
<td><strong>Temperature</strong></td>
<td>+5 ÷ +40 °C</td>
</tr>
<tr>
<td><strong>Max. relative humidity</strong></td>
<td>85%</td>
</tr>
<tr>
<td><strong>Max. voltage tolerance</strong></td>
<td>± 10 %</td>
</tr>
<tr>
<td><strong>Overvoltage category</strong></td>
<td>II</td>
</tr>
<tr>
<td><strong>Pollution degree</strong></td>
<td>2</td>
</tr>
<tr>
<td><strong>Max. surge (≤ 5s)</strong></td>
<td>230 V + 1200 V</td>
</tr>
<tr>
<td><strong>Max. surge (&gt; 5s)</strong></td>
<td>230 V + 250 V</td>
</tr>
<tr>
<td><strong>Mains switch</strong></td>
<td>Bipolar</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td>8.3 Kg</td>
</tr>
<tr>
<td><strong>Welding area</strong></td>
<td>12 x 310 mm</td>
</tr>
<tr>
<td><strong>Welding temperature</strong></td>
<td><strong>Standard mode</strong> 180°C</td>
</tr>
<tr>
<td><strong>Custom mode</strong></td>
<td>min. 170°C max. 200°C [set by the user]</td>
</tr>
</tbody>
</table>