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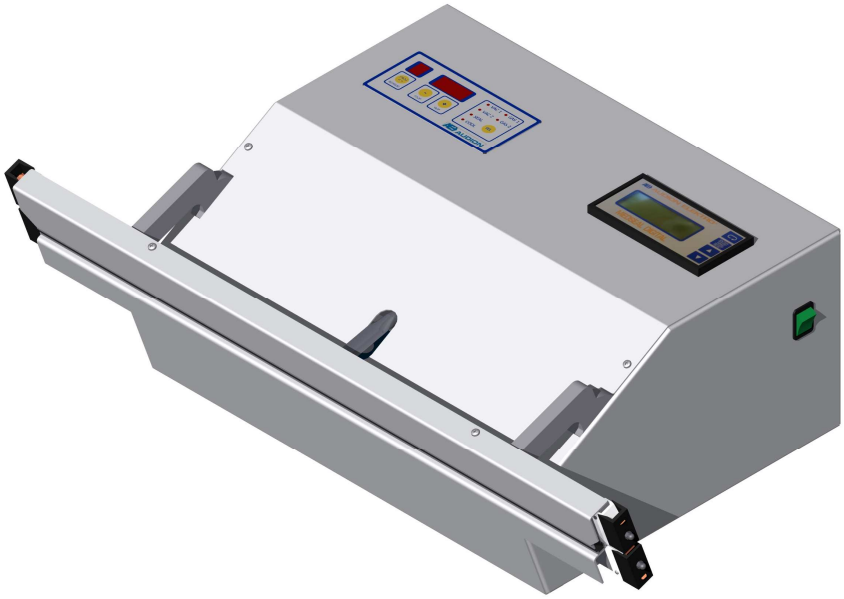
AUDION ELEKTRO®

MAGVAC Medical

MVMED

520 / 720 / 1020



MANUAL

520-720-1020 MVMED ENG Rev10

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1 Unpacking the Magvac

While unpacking the Magvac, use the following list to check if everything is present. The Magvac should be lifted from the package (box) only by two people.

- Magvac
- Mains cable
- Foot pedal
- Manual
- Calibration hook (inside of machine, behind bottom front plate)
- Plug for calibration hook (inside of machine, behind bottom front plate)
- Stay bolt (2x) for load cell calibration (inside of machine, behind bottom front plate)

Check the data on the type plate (fig. 1) at the rear of the Magvac and copy them to the following figure of the type plate.

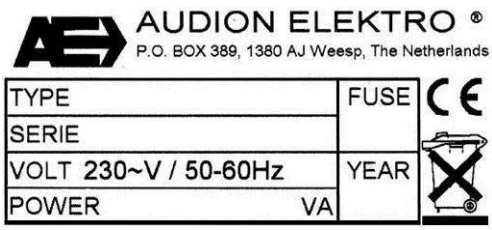

fig. 1

The Magvac is mounted for transport on a wooden base plate and packaged in a cardboard box. These materials are environmentally friendly and can be disposed of as regular household waste. We recommend keeping the packaging, so that the Magvac can be transported safely if required in the future.

2 Safety instructions

Before putting the Magvac into use, carefully read the operating instructions!

- Before putting the Magvac into use, check if the data on the type plate match the voltage (V), frequency (Hz) and power (W) of the local electricity mains.
- Remove the plug from the mains socket if the Magvac will not be used for a prolonged period of time.
- Always remove the plug from the mains socket if work is to be performed on the Magvac, otherwise there will be a risk of electric shock.
- Do not use any water, abrasives, chemical solvents or other liquids to clean the Magvac. See also chapter 9.
- When in doubt about the correct functioning of the Magvac, immediately unplug the device and consult a mechanic.
- Never open the housing to avoid a risk of electric shock. Only allow authorised maintenance personnel to perform repairs.
- Should any liquid or an object fall into the Magvac, immediately remove the plug from the mains and have the Magvac checked by an expert before putting it back into use.
-  The warning label indicates that the surface may be hot.

Only use original parts recommended by the manufacturer if certain parts need to be replaced.

Only use sealable materials suitable for the Magvac.

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3 General description

The Magvac is a stand-alone sealing device that is operated by means of a foot pedal. The film is sealed by pressing two seal bars together and heating them up. The seal bars have a good sealing pressure because they are closed pneumatically. It is possible to remove the air from (*and/or add a gas to*) the packaging before sealing. By default the Magvac is supplied with a control panel with soft-touch keys. Nine freely programmable sealing programmes can be stored. The Magvac Medical is fitted with a temperature controller that can be used to accurately set the sealing and cooling temperature. In addition, the sealing pressure is also checked during sealing. The machine also comes with a compressed air filter and vacuum filter. All film widths up to the width of the seal bars can be sealed. The Magvac is suitable for removing the air from and/or adding gas to and sealing the following packaging materials:

- Polyethylene (PE)
- Polypropylene (PP)
- Paper laminate + PP / PE / PET
- Tyvec
- Various laminates

The complete sealing cycle of the Magvac consists of the following steps:
- Inserting a packaging between the seal bars and around the vacuum/gas tube.
- After operating the foot pedal the seal bars are closed under low pressure.
- This is followed by removing the air from and/or adding gas to the bag.
- After the vacuum/gas cycle the seal wires are preheated.
- The vacuum tube is then retracted and the seal bars close under high pressure.
- The seal bars are heated to the sealing temperature set.
- The cooling time starts when the set sealing time has passed.
- After the cooling time the seal bars reopen.

4 Options

The machines may be provided with the following options:

Extended nozzle

20M3 pump

Plexiglass cover (short / long)

Powder filter (for table top model / on support)

Emergency stop

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5 Dimensional sketch of 520-720-1020 MVMED

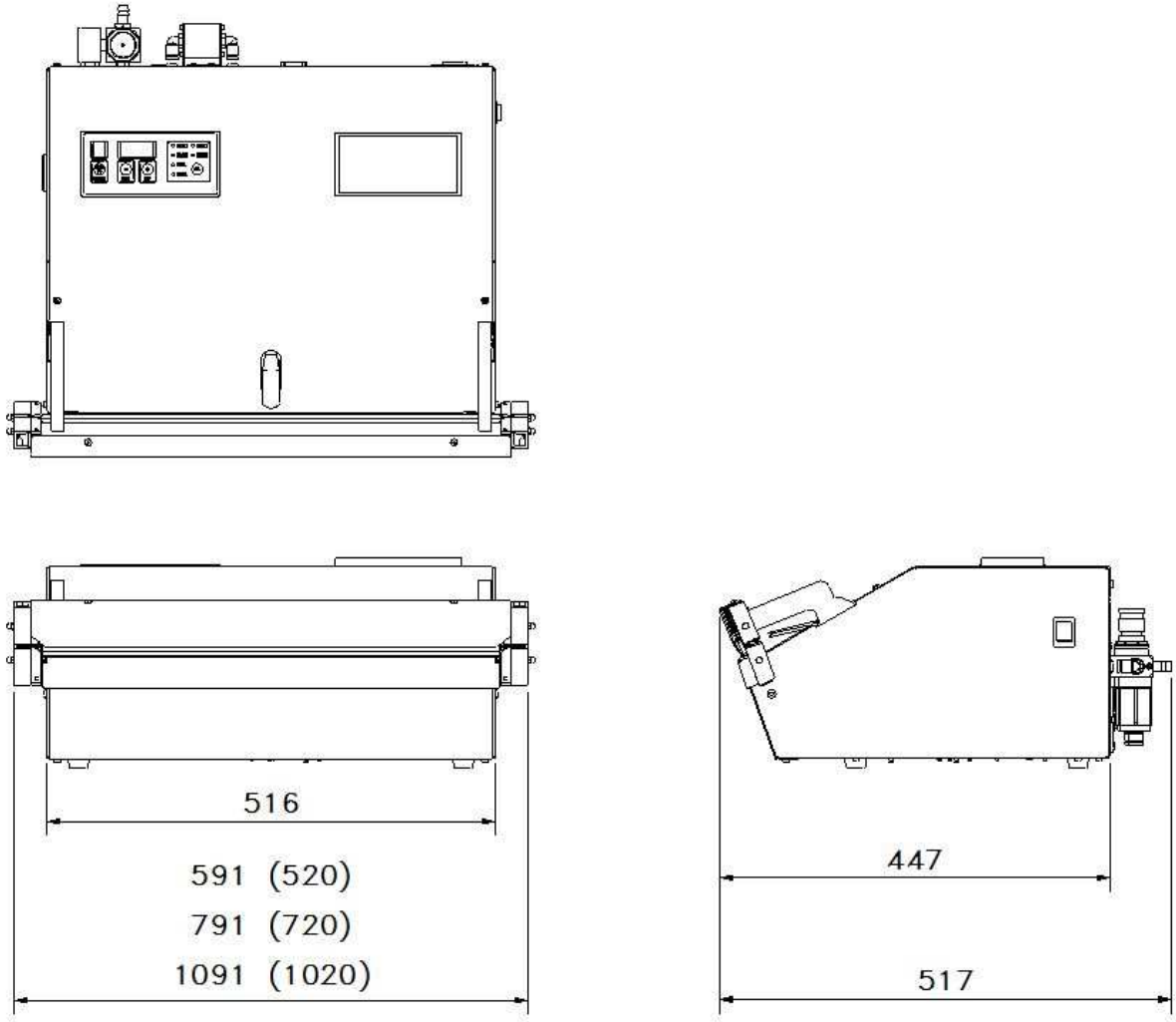

fig. 2

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6 Installation

6.1 Installation instructions

Place the Magvac in a ventilated, well-lit room.
Place the Magvac on a flat surface.
Make sure that the Magvac is not exposed to mechanical shocks or vibrations.
Make sure that the Magvac is not exposed to direct sunlight, extreme temperatures, moisture, dust or sand.

6.2 Connecting the Magvac

Make sure that the main switch is set to 0/OFF before connecting the Magvac.

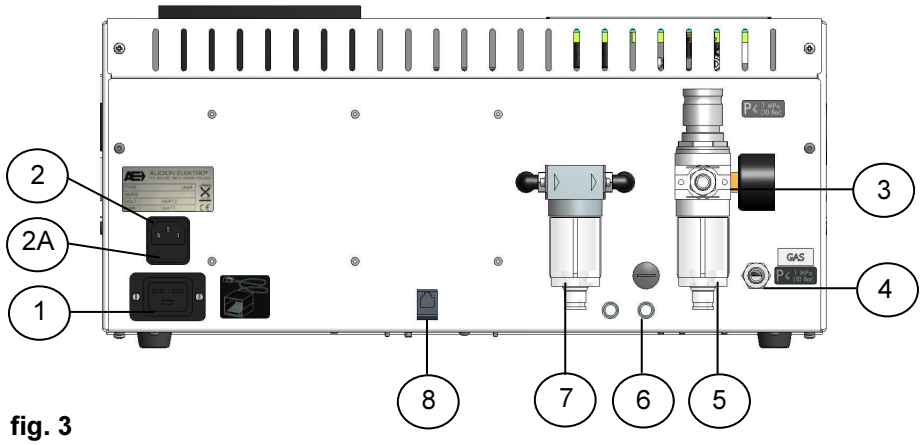

fig. 3

1	Foot pedal connection	3	Pneumatic connection	6	Vacuum air outlets
2	Mains socket	4	Gas connection	7	Vacuum filter pot
2A	Fuses (2x)	5	Compressed air filter pot	8	DIAG port for comm. cable nr. 355-05428

6.2.1 Connecting the foot pedal

Place the foot pedal on the work floor.

Insert the plug into the connection (1) at the rear of the machine. (see fig. 3).

6.2.2 Connecting to the mains

Insert the female plug of the mains cable into the mains socket (2) at the rear of the sealer. (see fig. 3).

Then insert the plug of the mains cable into the mains.

Always use an earthed mains connection with a fuse of 16A max.

6.2.3 Connecting the compressed air

Connect an air hose to the connecting nipple (3). (see fig. 3).

Connect the other end to the compressor or compressed air network with a quick-release coupling.

Standard compressed air pressure setting 6 bar. Maximum 10 bar.

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6.2.4 Connecting the gas supply

Connect the gas hose to the gas connection (4) at the rear of the machine (see fig. 3).

Connect the other end of the gas hose to a gas cylinder.

Make sure that the gas cylinder is always well secured and protected against falling.

The maximum connected gas pressure is 1 bar.

The use of explosive and corrosive gases is not permitted.

6.2.5 Connecting to a computer

The Magvac can be connected to a computer to store the data of the sealing process. In order to read the data, you do require additional computer software. The following critical data are stored: sealing temperature, sealing time and sealing pressure. The connection is made as follows.

- Check that the main switch is set to 0/OFF.
- Check that the computer is switched off.
- Connect the computer to the Magvac.
    - Connect a cable with a DIAG connector (nr. 355-05428) to the DIAG port (8) of the Magvac. (see fig. 3).
    - Connect the other end of the cable to the computer.
- Switch the Magvac on by setting the main switch to 1/ON.
- Switch the computer on.

Do not connect or disconnect the cable if the Magvac is switched on!

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7 Control panel

7.1 Control panel (vacuum/gas)

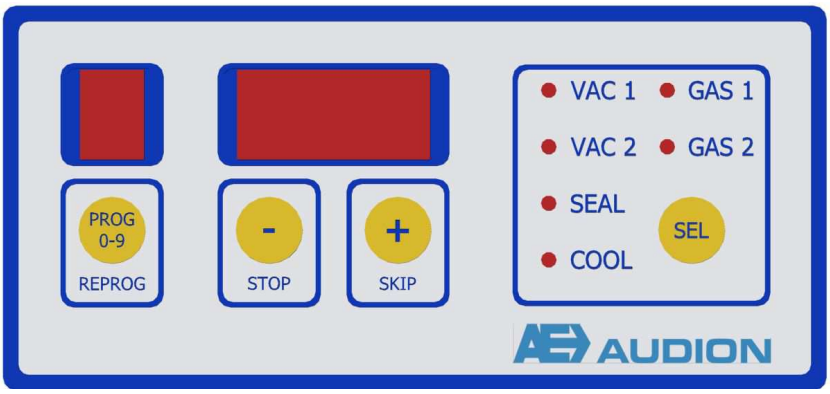

fig. 4

No.	Name	Function
1	PROG 0-9 / REPROG	Press to select the sealing programme. Hold down for 2 sec. to store the set values of the sealing programme. In the event of an error code: press to reset the machine.
2	- / STOP	During programming: press to decrease the set time by 0.1 second. Hold the key down to change the value faster. During the cycle: press to stop the sealing programme.
3	+ / SKIP	During programming: press to increase the set time by 0.1 second. Hold the key down to change the value faster. During the cycle: press to cancel the current step of the sealing programme and continue with the next step.
4	SEL	Press to select the desired step of the sealing programme.
5	Screen (small)	Shows the number of the chosen sealing programme. Nine sealing programmes (1-9) can be stored.
6	Screen (large)	Shows the set vacuum and gas times in seconds.
7	LED (6x)	During programming: lights up for the selected step of the sealing programme. During the cycle: lights up for the current step of the sealing programme that is being performed.

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7.2 Start-up screens (vacuum/gas)

While the machine is started up, the screens on the left and right show a number of start-up codes. These codes are used to indicate how the PCB is set. The screen on the right shows the following codes in succession: software version, jumper settings, programme order, foot pedal function, error function and the preheat time. Finally, the screen on the left shows the programme number and the screen on the right shows the programmed vacuum time.

Left screen code	Right screen code	Description
	S2.0	Software version.
	J00	Jumper setting. (See par. 11.4).
	U-G	Programme order vacuum -> gas. (See par. 11.3).
	P02	Foot pedal function. (See par. 11.3).
	F00	Error function. (optional). (See par. 11.3).
L	PH3	Preheat time. (See par. 11.3).
	PRO	Program function
	vt2	Vacuumtube
	EC2	End cyclus time
1	10	Small screen: shows programme number. Large screen: shows programmed vacuum time.

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7.3 Control panel (temperature controller)

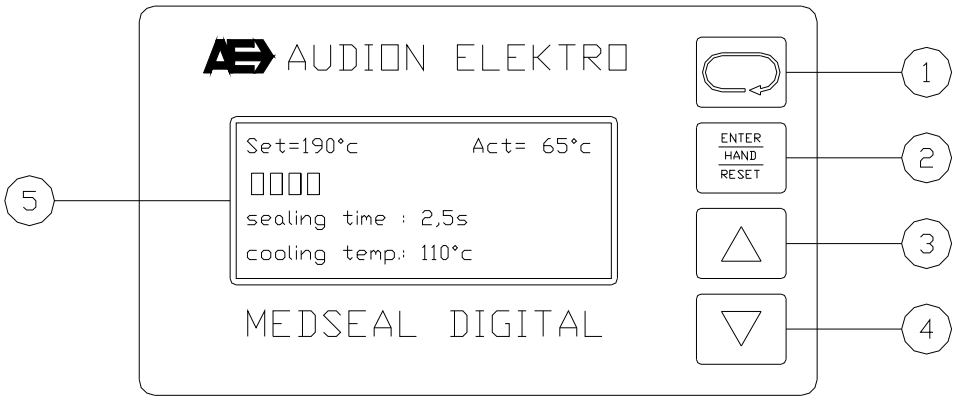

fig. 5

No.	Name	Function
1	Menu key	Press to select a seal setting. Hold down for 2 sec. to open the configuration menu.
2	Combi key: Enter key Hand key Reset key	**Enter** Press to store a modified seal or configuration setting during programming. **Hand** No function. **Reset** Press to reset the machine after an alarm message.
3	▲ key	Press to increase the selected seal or configuration setting. Hold the key down to change the value faster.
4	▼ key	Press to decrease the selected seal or configuration setting. Hold the key down to change the value faster.
5	Screen	4-line screen. Shows information about the seal or configuration programme and the values set.

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8 Operation

8.1 Switching the Magvac on

To switch the machine on:

- Set the main switch to 1/ON.

The green light in the switch will now be lit and the machine is started up.

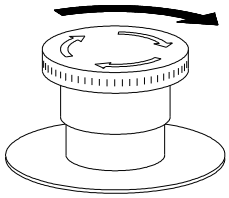
8.2 Switching the Magvac off

To switch the machine off:

- Set the main switch to 0/OFF.

The green light in the switch will now go out.

8.3 Emergency stop (option)



In case of emergency the emergency stop can be activated.
This causes the power supply to be shut off and the machine to stop.
The emergency stop should only be used for emergencies and not for a temporary switch off or stop of the machine.
The emergency stop is operated by means of pushing the red button.
After each use of the emergency stop it should be resetted by turning the red button in the direction of the arrow.

8.4 Programming a programme

Nine programmes (1-9) can be programmed in the Magvac. Each programme consists of six steps* that are completed one after the other during the cycle:

Step	Name	Description	Time (s)**
1	VAC 1	Vacuum time 1, time in seconds that the air is extracted from the bag.	0.0 – 60
2	GAS 1	Gas time 1, time in seconds that gas is blown into the bag.	0.0 – 10
3	VAC 2	Vacuum time 2, time in seconds that the air is extracted from the bag.	0.0 – 60
4	GAS 2	Gas time 2, time in seconds that gas is blown into the bag.	0.0 – 10
5	SEAL	Is controlled by temperature controller	
6	COOL	Is controlled by temperature controller	

* It is possible to change the order of removing the air and adding gas, see par. 11.3

** By setting the vacuum time or gas time to 0.0, this function is disabled. The screen will show OFF instead of 0.0.

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8.4.1 Vacuum packaging

The oxygen percentage in the packaging can be reduced by removing the air or adding gas several times. An overview of this is presented in the following table.

VAC	This reduces the volume in the packaging.
VAC-GAS	To reduce the remaining oxygen content of the packaging.
VAC-GAS-VAC	The same, but also to increase the vacuum capacity (repeated function).
VAC-GAS-VAC-GAS	For an even greater reduction of the oxygen content of the packaging.

8.4.2 Gas packaging

The repeated function can also be used to reduce the oxygen percentage in a ‘bulging’ packaging. An overview is presented in the following table.

GAS	This increases the volume in the packaging.
GAS-VAC*	To reduce the remaining oxygen content of the packaging.
GAS-VAC-GAS	The same, but also to increase the gas capacity (repeated function).
GAS-VAC-GAS-VAC	For an even greater reduction of the oxygen content of the packaging.

* It is possible to change the order of removing the air and adding gas, see par. 11.3

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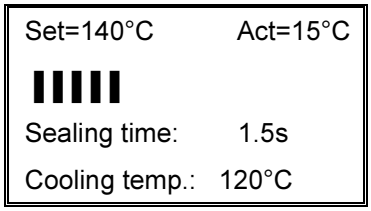
8.5 Description of temperature controller screens

8.5.1 Start screen

After switching on the Magvac, the following screen is displayed for two seconds:

ROPEX GmbH Temperature controller version.

This is followed by the start screen:



Set=140°C The sealing temperature set

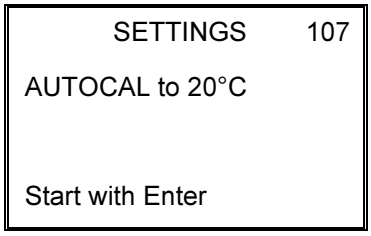
Act=15°C The current seal wire temperature

Status bar shows the temperature development.

Sealing time: 1.5s The sealing time set.

Cooling temp.: 110°C The temperature that the seal bars must have before they reopen.

8.5.2 Autocal



AUTOCAL to 20°C Set temperature at which the seal wires are calibrated. The ▲ and ▼ keys can be used to set the desired calibration temperature.

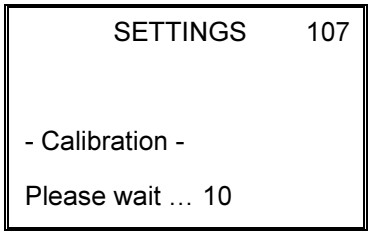
Set the temperature to the ambient temperature; this is usually about 20°C.

Machine must cool down fully to the ambient temperature.

If the Magvac is switched on and the seal bars have not yet heated up, the machine can be calibrated. Complete the following steps to calibrate the machine:

- Use the Menu key to select the Autocal function (setting 107, above screen).
- Use the ▲ and ▼ keys to set the ambient temperature (calibration temperature between 0°C and 40°C).
- Press the Enter key.

The calibration is now started. On the screen a counter counts down from 15 to 0 (see screen below). After finishing the calibration the programme will return to the start screen. If the calibration is not possible an error message will appear on screen.



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8.5.3 Setting of sealing parameters

SETTINGS 101
Sealing temp.: 140°C
(0 … 200°C)

Temperature of the seal bars during the sealing process. This sealing temperature can be set between 40°C and 200°C.

SETTINGS 103
Start delay: 0.0s
(0.0…9.9s)

⚠ **Do not change this setting!**

In case of damaging the seal wires

SETTINGS 104
Sealing time: 1.5s
(0.0…99.9s)

Time during which the set sealing temperature of the seal bars is maintained. This sealing time can be set between 0.0 s and 99.9 s.

⚠ **Set the sealing time always longer than 0,9 sec. In case of a 0,8 sec. temperature evaluation time. The sealing temperature isn't verified with a shorter sealing time than 0,9 sec.** *

⚠ **Never set the Sealing temperature higher than 200ºC! This is to prevent damage and/or burning of the PTFE, and/or bag.**

SETTINGS 103
Cooling temp.: 120°C
(20 … 200°C)

Temperature to which the seal bars must cool down before they reopen. This cooling temperature can be set between 20°C and 200°C.

SETTINGS 106
Hold mode: OFF
(OFF/ON/2 sec.)

The temperature measured last during sealing is displayed on screen. The function can be set as follows:

OFF Temperature is not displayed. After sealing the start screen is displayed.

ON Temperature is displayed until the next sealing cycle is started.

2 sec. Temperature is displayed for 2 seconds, after which the start screen is displayed again.

* Please contact Audion for different parameters when a shorter sealing time than 0,9 is needed.

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The settings of the sealing parameters depend on the type of material and the thickness of the material.

Check if the sealing parameters match the instructions of the manufacturer of the packaging material.

By way of a test, you can seal a few bags to check the settings.

If you are having difficulty finding the right settings, you can send us a couple of examples. We will then let you know which settings you can use best based on sealing tests.

8.5.4 Display of sealing cycle

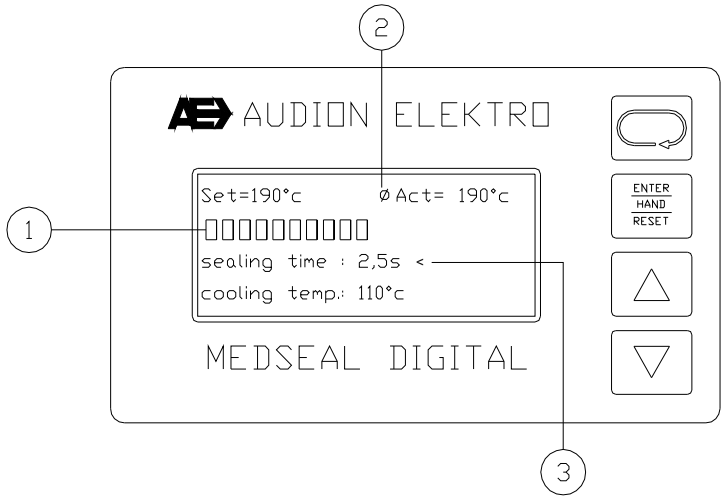

fig. 6

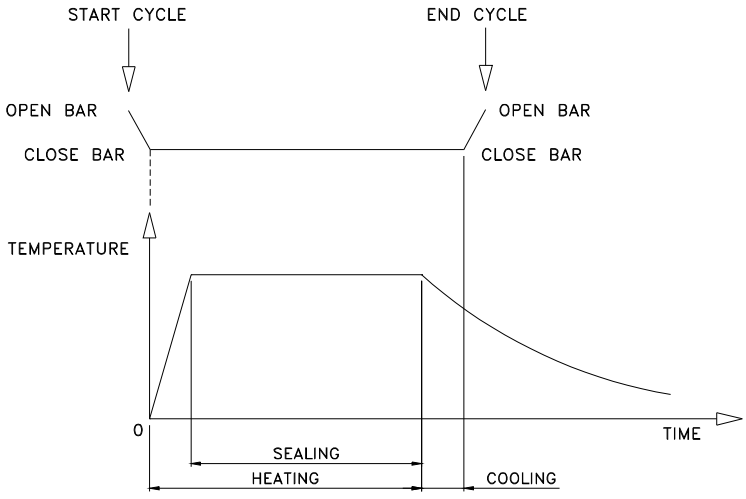

fig. 7

The sealing cycle (fig. 8) consists of the following phases:

1. Heating to the set temperature (‘Set’ in fig. 6). In this phase the screen shows the following information:

- Temperature development based on the status bar (pos. 1 in fig. 6).
- The value of the temperature reached ‘Act’ (pos. 2 in fig. 6).

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2. Maintaining the temperature during the sealing time set (‘Sealing time’ in fig. 6). In this phase the screen shows the following information:
- The status bar (pos. 1 in fig. 6) continuously shows the temperature reached.
- The arrow ‘ **<** ’ (pos. 3 in fig. 6) indicates the time that has passed since the sealing temperature was reached.

3. Cooling down to set cooling temperature with seal bars closed (‘Cooling temp’ in fig.6). In this phase the screen shows the following information:
- Temperature development based on the status bar (pos. 1 in fig. 6).

4. Opening of the seal bars after the temperature of the seal wires has dropped **below** the cooling temperature set.

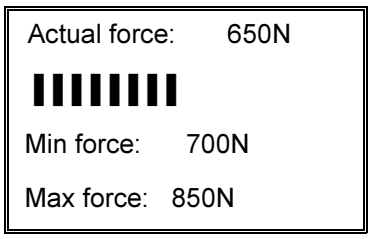
5. Cycle end.

8.5.5 Sealing pressure 520 model

A load cell is used to constantly measure the force on the lower seal bar. To display this force on screen:

- Press the ‘MENU’ key in the start screen.

The following is now displayed on screen:



Actual force The force in newton with which the seal bars are pressed together.

▌▌▌▌▌▌▌▌ Status bar indicates the force achieved.

Min. / Max. force: The range of values (in newton) of the ‘actual force’ during sealing.

- **Actual force = 650N** → The value (in newton) of the force on the lower seal bar. This force varies as follows:
  - A preload when the bars are open.
  - The actual force exerted on the bag during sealing with the bars closed.

- **Min. force = 700N**
  Max. force = 850N → The range of values (in newton) of the ‘actual force’ during sealing. If the ‘actual force’ is less than the ‘min. force’ or greater than the ‘max. force’ during sealing, the temperature controller will interrupt the sealing cycle and an error message will be displayed on screen.

- ▌▌▌▌▌▌▌ → Status bar indicates the force achieved.

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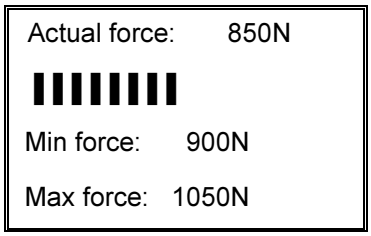
8.5.6 Sealing pressure 720 - 1020 model

A load cell is used to constantly measure the force on the lower seal bar. To display this force on screen:

- Press the 'MENU' key in the start screen.

The following is now displayed on screen:



Actual force The force in newton with which the seal bars are pressed together.

▮▮▮▮▮▮▮▮ Status bar indicates the force achieved.

Min. / Max. force: The range of values (in newton) of the 'actual force' during sealing.

- **Actual force = 850N** → The value (in newton) of the force on the lower seal bar. This force varies as follows:
  - A preload when the bars are open.
  - The actual force exerted on the bag during sealing with the bars closed.

- **Min. force = 900N**
  Max. force = 1050N →The range of values (in newton) of the 'actual force' during sealing. If the 'actual force' is less than the 'min. force' or greater than the 'max. force' during sealing, the temperature controller will interrupt the sealing cycle and an error message will be displayed on screen.

- ▮▮▮▮▮▮▮ → Status bar indicates the force achieved.

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8.6 Sealing

Complete the following steps to start sealing:

- Set the main switch to 1/ON.
- Use the PROG key to select the desired programme number 1-9.
- Set the sealing and cooling temperatures and also the sealing time on the temperature controller.
- Position the bag between the seal bars.
- Make sure that the vacuum tube is inserted in the bag if vacuum and/or gas time is set.
- Operate the foot pedal to start the machine.

The programme is now followed and the seal is made. When the programme is ready the seal bars reopen automatically.

To cancel a step during the cycle, press the 'SKIP' key or the foot pedal*. The current step is interrupted and the programme continues with the next step.

To stop the programme completely, press the 'STOP' key during sealing. The programme is stopped and the seal bars open up.

If you observe the following guidelines, you will be guaranteed high-quality sealing results:

- Do not pull on the material during sealing and make sure it does not move.
- Make sure that the part of the bag to be sealed is clean and dry on the inside.
- Make sure that the part to be sealed is completely flat until the seal bars are fully closed to prevent folds and wrinkles.
- During sealing, only switch off the machine in an emergency.
- Start preparing the next bag during sealing; the seal bars will reopen automatically at the end of the cycle.
- Leave some material above the seal; that makes it easier to open the bag later on.

For optimum results and ease of operation, the bag should be filled for no more than 3/4 lengthwise and at least 30 mm of free space must be present between the product and the inside of the seal.

Never place bags with labels or sticky tape between the seal bars.

* Only possible for pedal function P02. See par. 11.3

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9 Specifications

The technical details such as the weight and dimensions of the Magvac can be found in chapter 10.

9.1 Operating specifications

- operating speed : max. 10 runs per minute
- ambient temperature : +5° . . . +40° Celsius
- relative humidity : 30% . . . 95% rel. (without condensation)
- attachment, base : the Magvac is positioned on four legs
- explosion safety : cannot be used in explosive environment
- extraction, ventilation : use in a ventilated room

9.2 Non-permitted applications

- use in an explosive environment
- packaging of toxic, corrosive or irritating substances
- packaging of explosive materials
- packaging of toxic, suffocating or irritating gases
- packaging of (hazardous) dustlike products

10 Maintenance

The Magvac is a relatively simple machine that does not require a lot of maintenance. There are a few minor repairs that you can perform yourself. Contact your dealer or Audion Elektro BV for other repairs.

Always remove the plug from the mains and close the air- and gas supply before performing maintenance or repairs on the Magvac.

Only use original parts recommended by the manufacturer if anything needs to be replaced.

The following maintenance schedule is based on regular use of the machine. If the machine is used intensively or in extreme conditions, maintenance should be performed at shorter intervals.

Component	Task	Frequency
Entire machine	Clean the Magvac after use with a moist cloth and soft soap.	Daily, after use
Seal bar	Check the condition of the seal wires and the PTFE covering of the seal bars. See paragraph 10.2.1 for replacement of these parts.	Weekly
Filter pots	Check if any water and/or dirt is present in the collection reservoirs. See paragraph 10.4 for the cleaning of these parts.	Weekly

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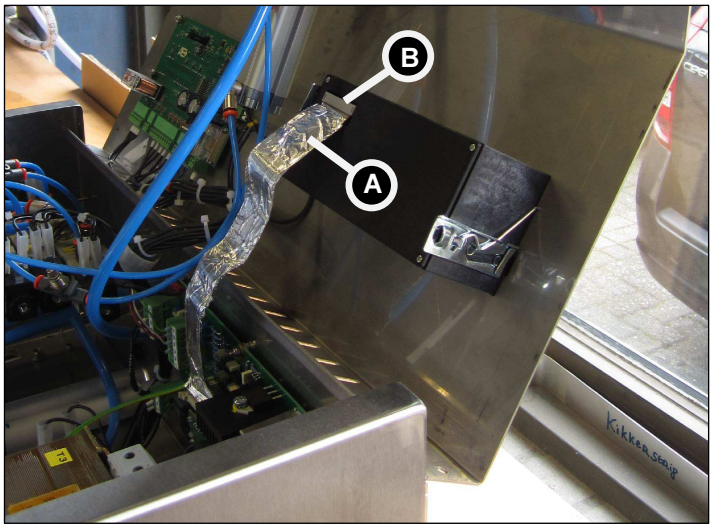
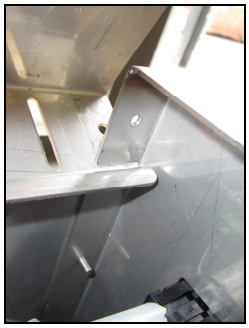
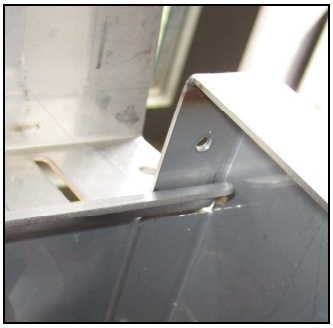
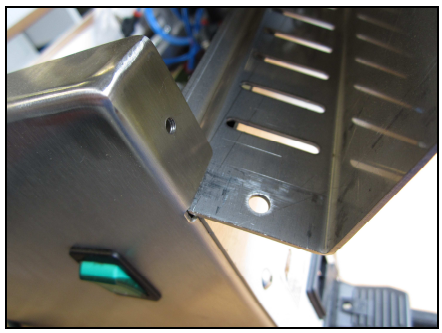
10.1 Opening and positioning the top cover

Make sure not to damage the flat cable (A) when opening and positioning the top cover!

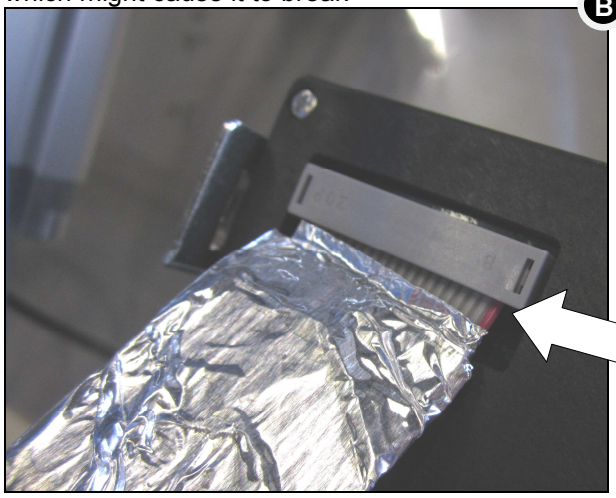








Position the top cover as indicated above, making sure that there is **NO** tension on the flat cable, which might cause it to break



Make sure:
that there is no tension on the connection between flat cable en connector

10.2 Maintenance of the seal bars

10.2.1 Replacing the PTFE cover

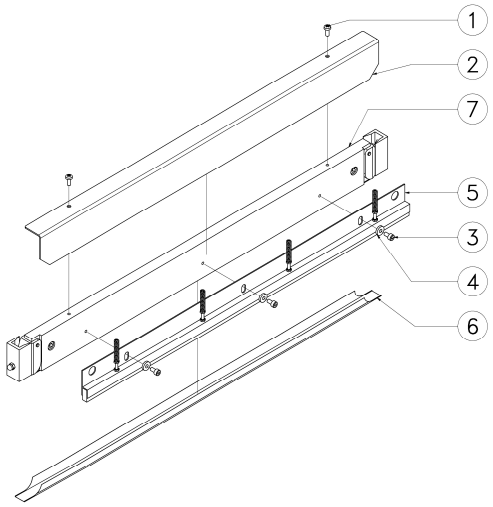


fig. 8 Upper seal bar

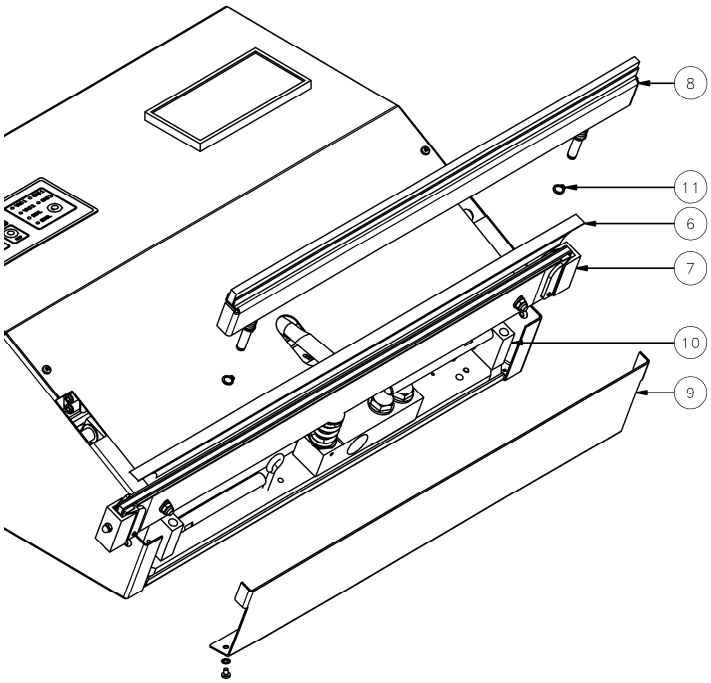


fig. 9 Lower seal bar

Burnt or worn PTFE can be replaced easily. Complete the following steps:

- Disassemble the upper vacuum rubber holder cap (2) by unscrewing the two upper screws (1).
- Remove the upper vacuum rubber holder cap (5) by unscrewing the three screws (3) at the front.
- Remove the front cover (9) of the machine.
  Then remove the retaining rings (11) below the guide block (10). Now remove the lower vacuum rubber holder (8) by sliding it upwards, out of the two guides.
- Remove the old PTFE cover (6) from the seal bars.
- Remove any old glue residue from the sides of the seal bars (7)
- Attach the new PTFE cover over the seal bars.
- Reassemble all components in the reverse order.

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10.2.2 Replacing the seal wire

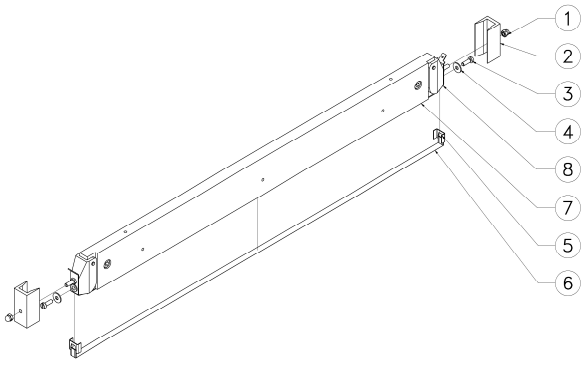

fig. 10 Upper seal bar

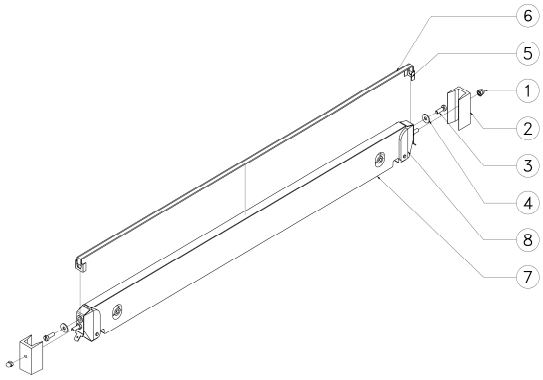

fig. 11 Lower seal bar

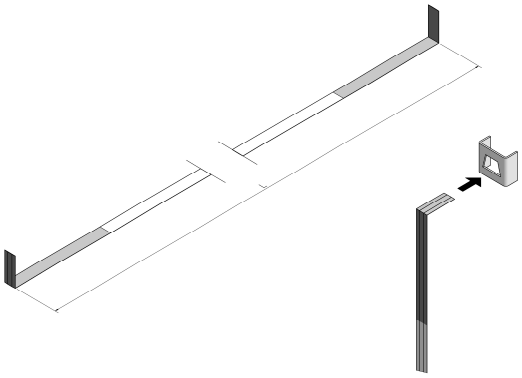

fig. 12

Sealwire	MVMED		
	520	720	1020
L [mm]	594	794	1094

- Remove the PTFE cover (see par. 10.2.1).
- Disassemble the rocker caps (2) by unscrewing the cap nuts (1).
- Unscrew screws (3) from the rocker (8).
- Remove the seal wires (6).
- Bend the new seal wires 90° at the ends as indicated.
  Attention: Bend the seal wire ends towards the rear of the seal wire. The sealing side of the seal wires can be recognised by the two bevelled edges.
- Place one end of the seal wire from the outside in through the bracket (5).
- Mount the bracket (5) onto the rocker (8).
- Insert the other end of the seal wire through the other bracket (5) (from the outside in).
- Mount the bracket onto the rocker on the other side.
- **Check if the rockers are well tensioned; if this is not the case you should bend the seal wire further from the ends.**

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10.2.3 Replacing the silicone rubber

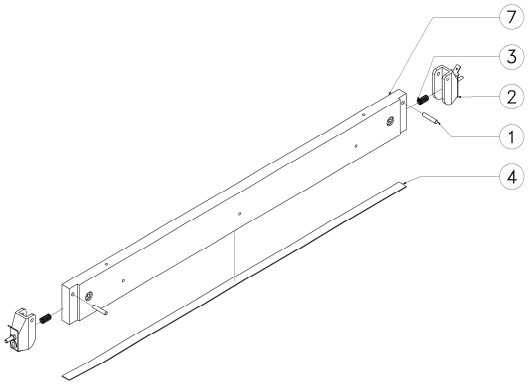

fig. 13 Upper seal bar

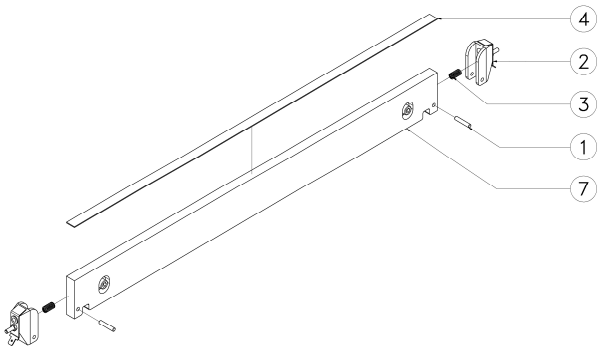

fig. 14 Lower seal bar

- Remove the PTFE cover (see par. 10.2.1).
- Remove the seal wire (see par. 10.2.2).
- Now remove the old silicone rubber (4).
- Remove any glue residue from the seal bar (7).
- Attach the new silicone rubber (4) to the seal bar (7).
- Mount the seal wire (see par. 10.2.2).
- Attach the PTFE cover (see par. 10.2.1).

10.2.4 Replacing the vacuum rubber

Where required, the vacuum rubber can be replaced by pulling it out of the U-shaped holder and pressing the new rubber evenly into the holder.

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10.3 Checking the sealing temperature between the sealing wires

To achieve an accurate sealing temperature between the sealing wires, the ppm value must be adjusted to the sealing temperature used.

Adjust the ppm value at 130°C if you are going to seal at 130°C.

The factory setting for the ppm value is based on 140˚C.

Always check the temperature between the sealing wires after disconnecting and/or replacing the sealing wires.

Sealers that can be validated require that the sealing temperature between the sealing wires be checked on a regular basis. The Audion Temperature Measurer (ATM) is a suitable digital temperature gauge for this. The ATM is fast, accurate and easy to operate. You can order the ATM from your dealer or from Audion (see the back cover of this manual for contact details). The sealing temperature between the sealing wires will have to be checked after carrying out maintenance work on the sealer, e.g. disconnecting and/or replacing sealing wires.

Check this as follow:

Switch on the sealer.
Check that the sealing mode (configuration menu 240) has been set to 'double'. See par.11.6.
(Heating both seal bars).
Run the Autocal function (operator menu)
(the sealing machine must have fully cooled down to ambient temperature).
Set the following in the operator menu:

- Sealing temperature: sealing temperature used. (e.g. 140° C)
- Sealing time: 5 sec. (ATM needs 5 sec. to determine the temperature).
- Cooling temperature: desired value, e.g. 120° C.

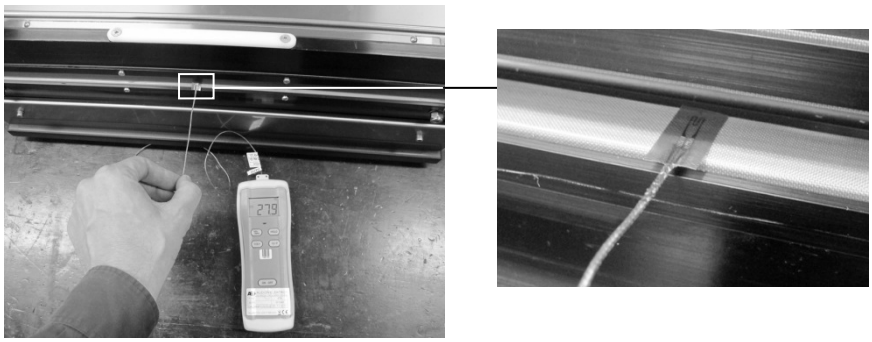

fig. 15 Placing the ATM sensor

Place the sensor centrally between the seal bars.
Start the sealer.
Check the temperature in the ATM display.

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The sealer has been set correctly if the temperature in the display matches the sealing temperature of the sealer. If not, the sealing temperature needs adjusting:

Go to configuration menu 204 and increase or decrease the value of the temperature coefficient (??? ppm). See par. 11.6(depends on whether the temperature measured was too high or too low).
Place the sensor between the seal bars.
Start the sealer.
Check the temperature in the ATM display.

The sealer has been set correctly if the temperature in the display matches the sealing temperature of the sealer. If not, repeat the last 4 steps until the temperatures match.

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10.4 Cleaning of filter pots

10.4.1 Cleaning of compressed air filter pot

The compressed air filter pot is located at the rear of the machine (see pos. 5 fig. 3).

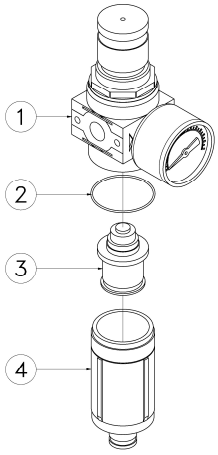

fig.16

Complete the following steps to clean the compressed air filter pot:

- Set the main switch to 0/OFF.
- Close the compressed air supply.
- Unscrew the filter pot (4) and clean it.
- Unscrew the filter cartridge (3).
- Clean the filter or replace it if it is dirty.
- Check the O ring (2) in the holder (1) and replace it if it is damaged.
- Mount all components in the reverse order, make sure that the O ring is in the correct position.
- Reconnect the compressed air supply.
- Set the main switch to 1/ON.
- Check the filter for leaks.

10.4.2 Cleaning of vacuum filter pot

The vacuum filter pot is located at the rear of the machine (see pos. 7 fig. 3).

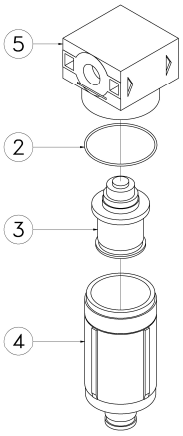

fig.17

Complete the following steps to clean the vacuum filter pot:

- Set the main switch to 0/OFF.
- Unscrew the filter pot (4) and clean it.
- Unscrew the filter cartridge (3).
- Clean the filter or replace it if it is dirty.
- Check the O ring (2) in the holder (5) and replace it if it is damaged.
- Mount all components in the reverse order, while making sure that the O ring is in the correct position.
- Set the main switch to 1/ON.
- Check the filter for leaks.

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10.5 Replacing fuses

The fuses can be found on the rear of the machine (see item 2a – par 6.2).

Replace the fuses as follows:

- Set the main switch to 0/OFF.
- Remove the plug from the mains socket.
- Open the fuse compartment.
- Replace the fuses.
  (2x fuse 10AT-20x5 item number 355-05010).
- Close the fuse compartment.
- Plug the plug into the mains socket again.
- Set the main switch to 1/ON.

10.6 Setting / adjusting the MVMED sealing pressure

Complete the following steps to set or adjust the sealing pressure:

1	Bottom vacuum rubber holder
2	Bottom front cap

Switch off the machine using the main switch.
Remove the bottom vacuum rubber holder (1) by sliding it upwards, out of the two guides.
Disassemble the bottom front cap (2) of the machine by unscrewing the two socket screws at the bottom.

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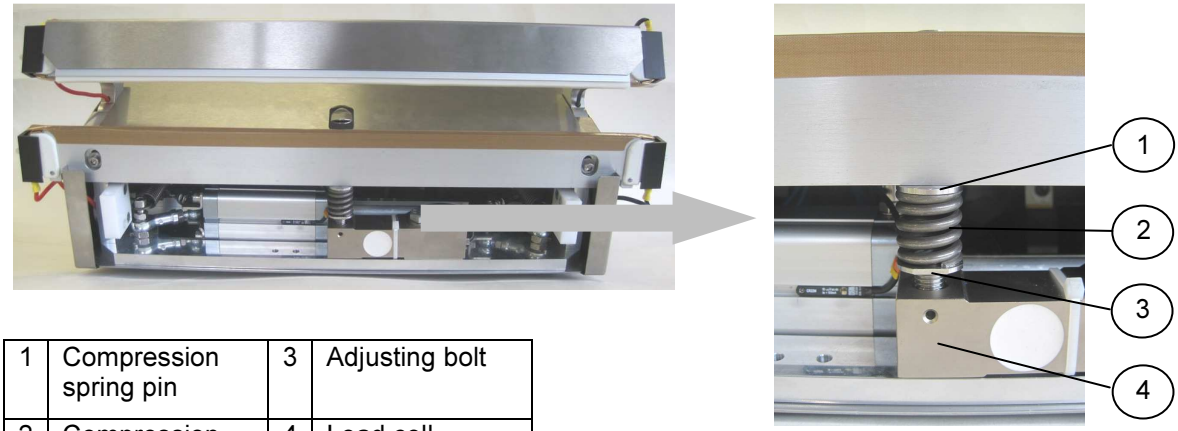

1	Compression spring pin	3	Adjusting bolt
2	Compression spring	4	Load cell

- Switch on the machine using the main switch.
- Press the menu key of the temperature controller for the pressure currently set. See also par. 7.4.5.
  Adjust the sealing pressure by turning the adjusting bolt (3) (wrench size 23).
  Target value 650 N for models 520 (opened seal bars).
  Target value 850 N for model 720-1020 (opened seal bars).

Clockwise, the pressure decreases (value for 'actual force' on screen will drop).

Counter clockwise: the pressure increases (value for 'actual force' on screen will rise).

Be careful and turn the nut slowly. A small turn of the adjusting nut already leads to a change of several newton.

- Switch the machine off again using the main switch.
- Replace the bottom front plate and reattach the screws.
- Replace the bottom vacuum rubber holder.

10.7 Calibrating the load cell

Complete the following steps to calibrate the load cell to the original factory settings.

For this procedure the seal bars may not be warmer than ambient temperature (about 20°C).

1	Bottom vacuum rubber holder
2	Bottom front cap

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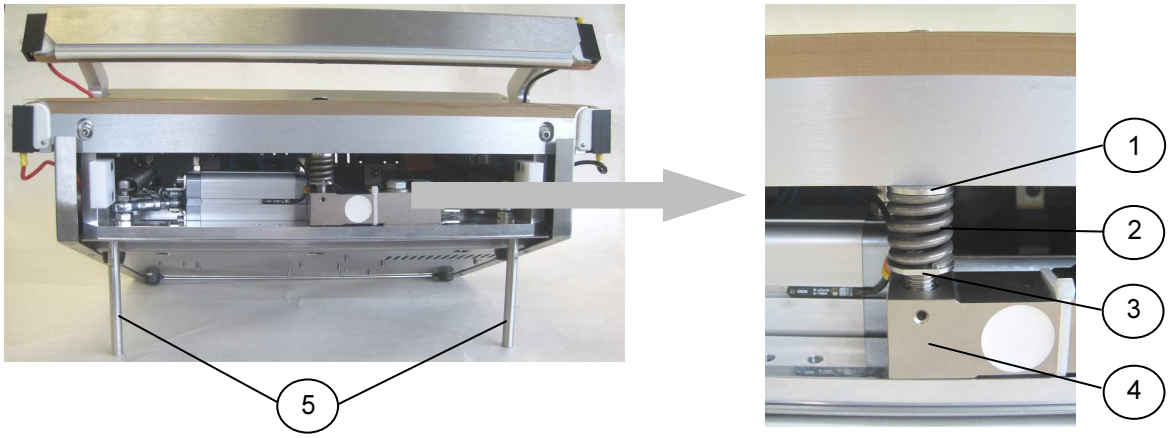
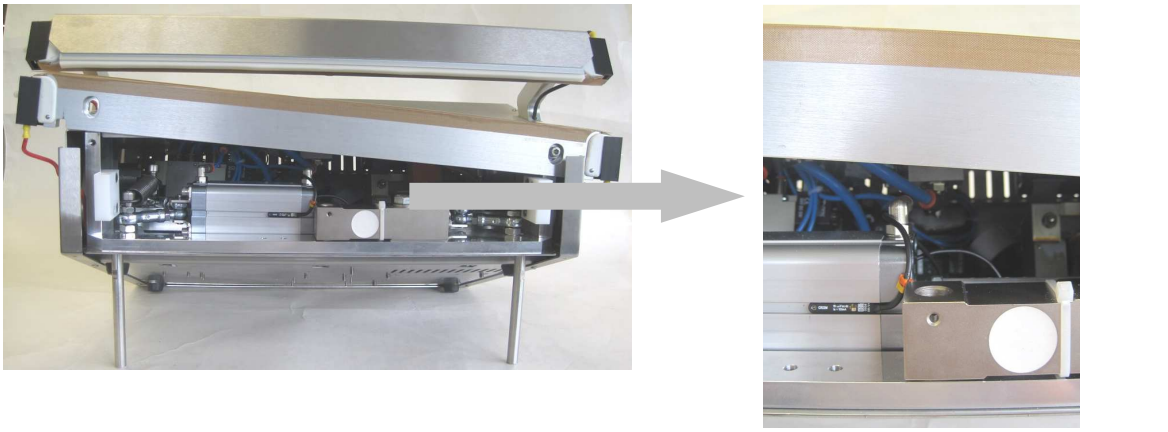
- Switch off the machine using the main switch.
- Remove the bottom vacuum rubber holder (1) by sliding it upwards, out of the two guides.
- Disassemble the bottom front cap (2) of the machine by unscrewing the two socket screws at the bottom.



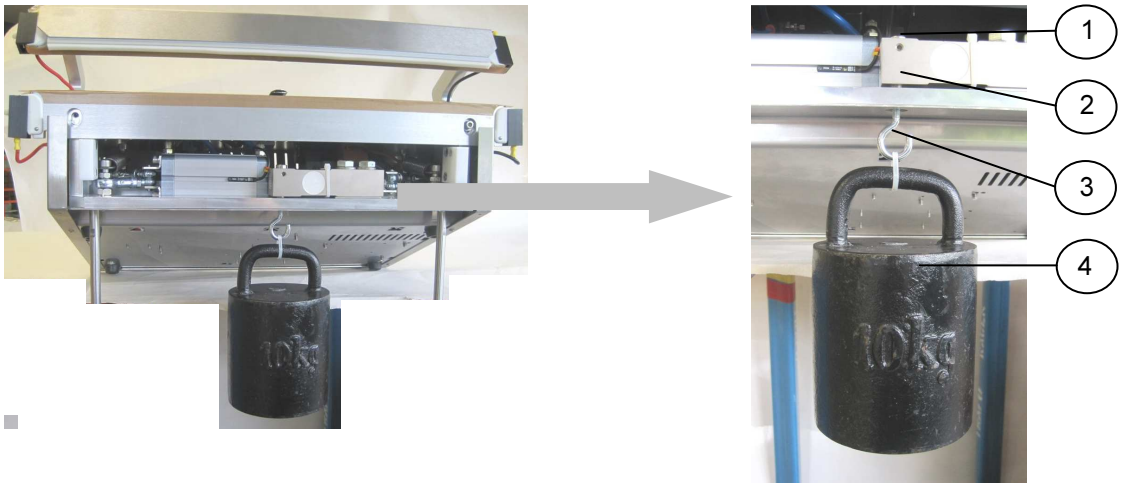
1	Compression spring pin	3	Adjusting bolt	5	Support bolts
2	Compression spring	4	Load cell	6	

- Behind the bottom front cap are two support bolts, a calibration hook and a plug for the calibration hook.
- Screw the two support bolts (5) on the left and right front underneath the machine.
- Turn the adjusting bolt (3) of the load cell clockwise until the tension is removed from the compression spring. The lower seal bar can now move up and down freely.

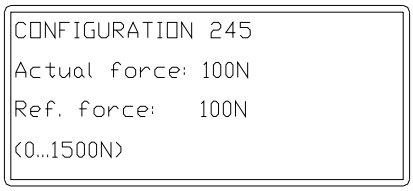


CONFIGURATION 244
Actual force: ON
For tare press
ENTER key!

- Now unscrew the left socket screw of the lower seal bar.
- Remove the compression spring (2) and the compression spring pin (1) and unscrew the adjusting bolt (3) from the load cell (4).
- Switch on the machine using the main switch.
- Now select configuration menu 244 of the temperature controller and press ENTER. The 'actual force' is now set to zero newton. (see par. 8.5.5 en 8.5.6).



1	Plug	3	Calibration hook
2	Load cell	4	Standard weight 10kg



- Place the machine with the support bolts close to the table's edge.
- Place the plug (1) from the top into the load cell (2) and screw the calibration hook (3) from the bottom into the plug.
- Very carefully hang a standard weight of 10kg (4) on the calibration hook.
- Now select configuration menu 245 of the temperature controller. Set the value to 100 newton and then press ENTER. The reference force is now set to 100 newton. (see par. 8.5.5 en 8.5.6).
- Switch off the machine using the main switch.
- Reassemble all components in the reverse order.
- Adjust the sealing pressure according to the previous paragraph.

During the CALIBRATION PROCEDURE the reference force is set to 100 N. The reference weight is 10kg (about 98.1 N), plus the weight of the hook.

This approximation makes calibration easier, because the weight is available anywhere and the deviation remains limited to about 1.5% of the value of the 'actual force'. In other words: 'actual force' (on screen) = 650 N → actual force ~ 640 N.

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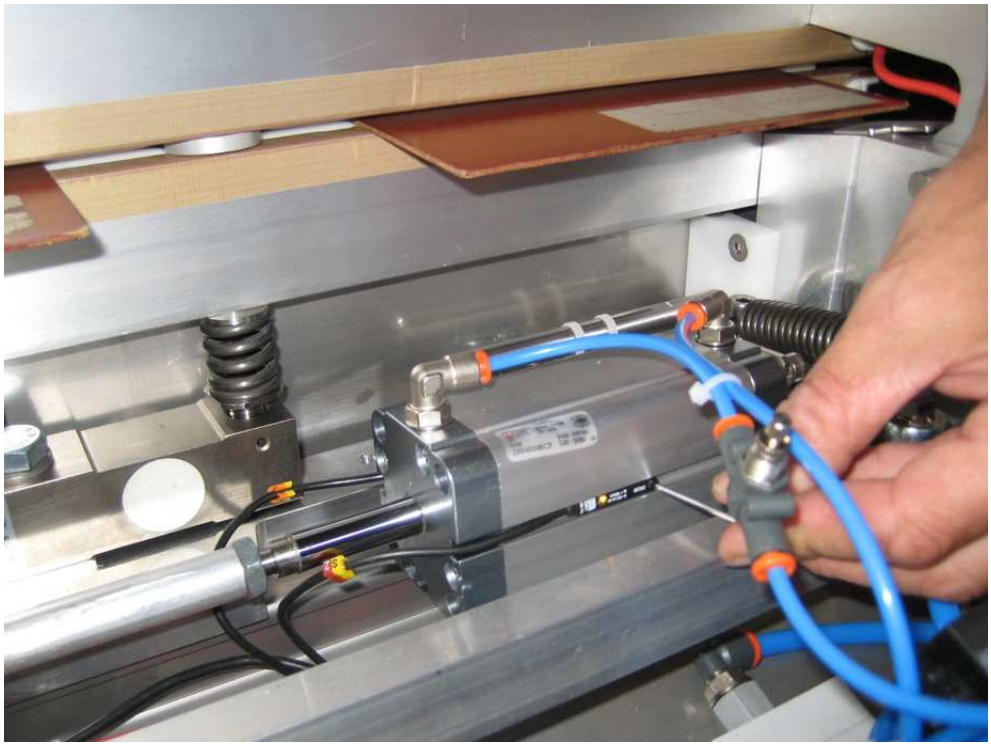
10.8 Adjusting low pressure reed switch S2

Do the following to adjust the reed switch S2.

The reed switch is located at the rear of the master cylinder. See photo



- Check that the high pressure is 6 bar.
- Check that the low pressure is 2 bar.
- Make a seal and see if the pressure remained constant

- Open the top cover.
- Loosen the Allen-screw on the reed switch S2 (Allen 1.5) and slide the reed switch to the side in the direction of the cylinder rod. See photo
- Place a small plate (□ or Ø 25mm, thickness 5mm), in the middle, between the sealbars and over the vacuum rubber.
- Place two plates (100x185mm, thickness 2mm) on both sides between the sealbars. See photo

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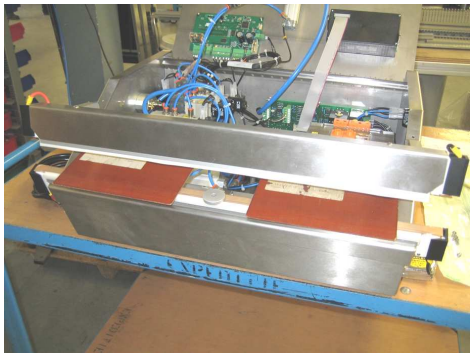
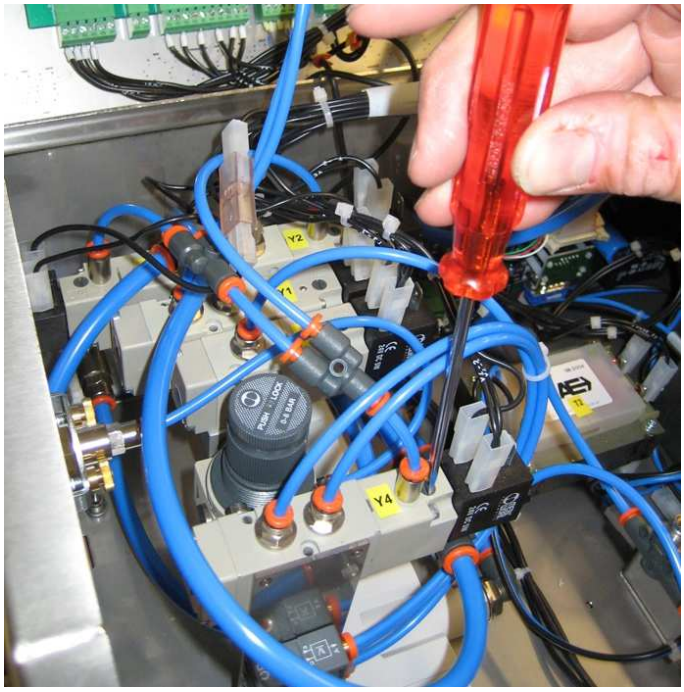


- Activate valve Y4 (low pressure) manually with a screwdriver. See photos

CAUTION,
sealing bar
CLOSES

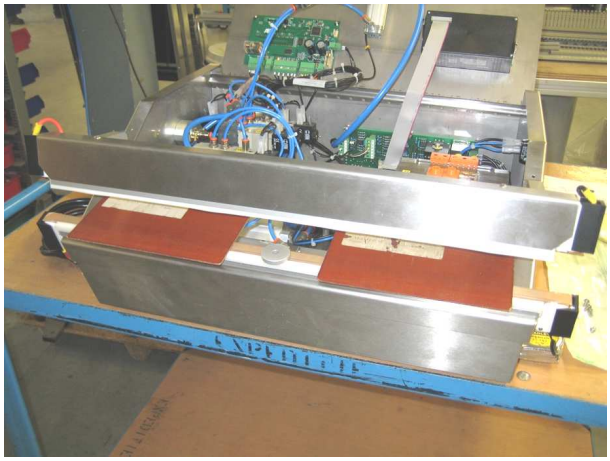


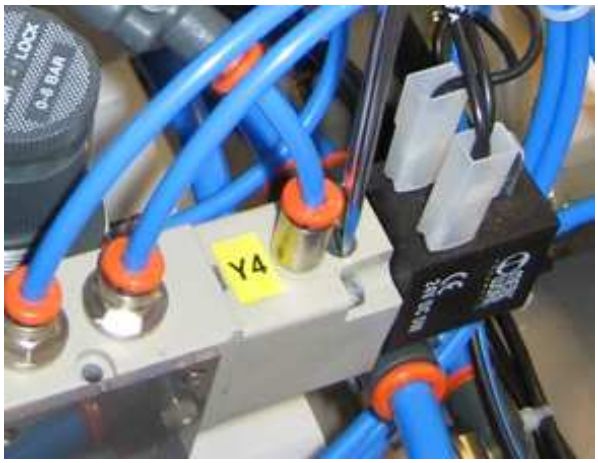
- Slide the reed switch S2 until the LED on the reed switch just goes on.
  See photo

- Tighten the reed switch screw.
- Using a screwdriver, turn the valve Y4 "OFF".

Check

- Check with a **2mm PLATE** on the left and right side between the sealing bars
- Activate valve Y4 manually with a screwdriver.
- CAUTION, sealing bar CLOSES !!!!
- Now the reed switch **SHOULD** light up.
- Using a screwdriver, turn the valve Y4 "OFF".



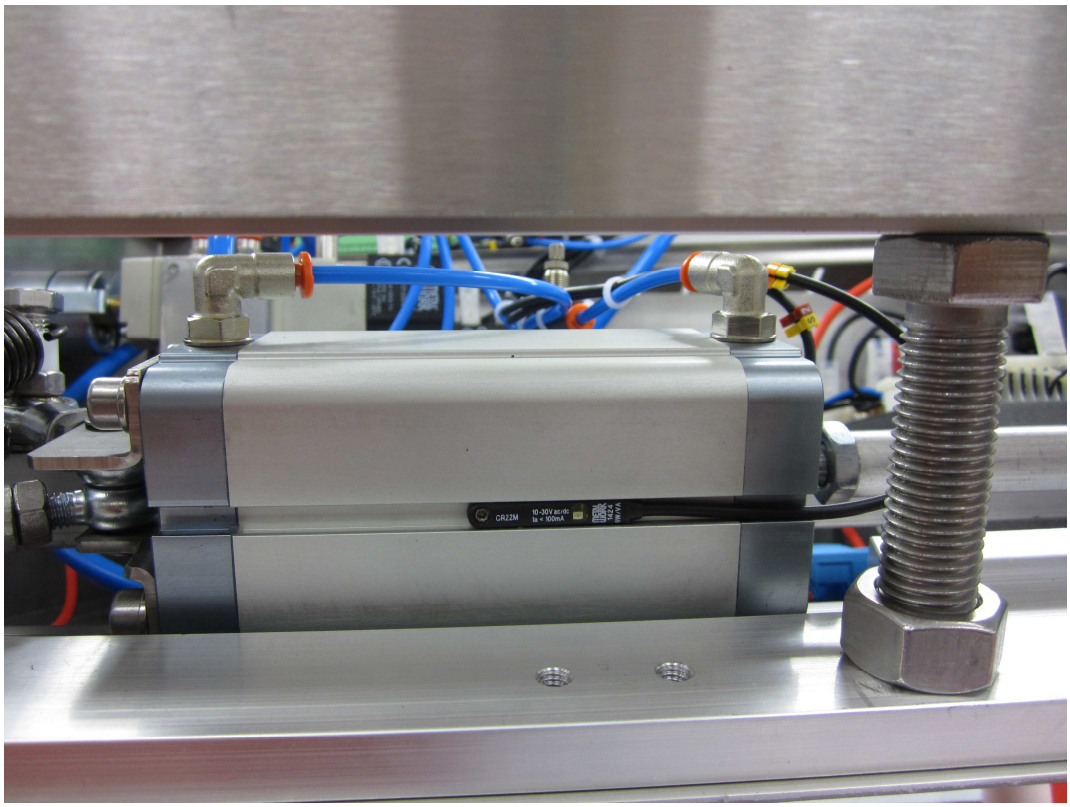


- Check with a **4mm PLATE** on the left and right side between the sealing bars
- Activate valve Y4 manually with a screwdriver.
- CAUTION, sealing bar CLOSES !!!!
- Now the reedswitch **SHOULD NOT** lightup.
- Using a screwdriver, turn the valve Y4 "OFF".

- Close the top cover

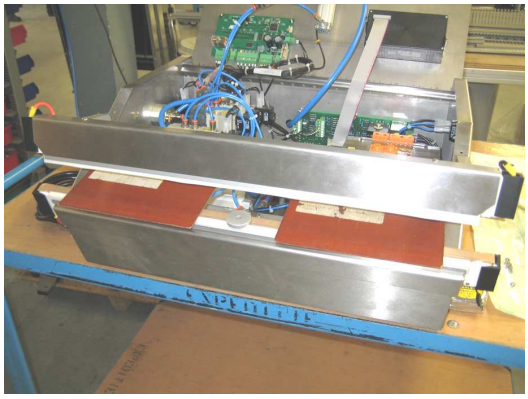
10.9 Adjusting pressure reed switch S3

Do the following to adjust the reed switch S3.
The reed switch is located at the front of the main cylinder. See photo



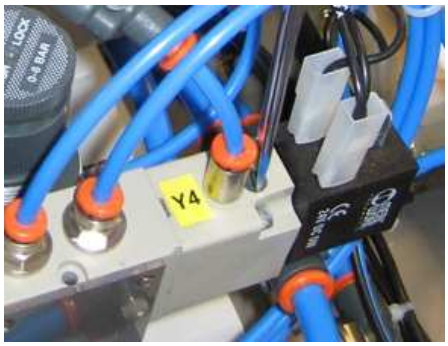
- Check that the high pressure is adjusted to 6 bar.
- Check that the low pressure is adjusted to 2 bar.
- Make a seal and see if the pressure remained constant

- Open the top cover
- Remove the front cover.
- Loosen the Allen-screw on the reed switch S2 (Allen 1.5) and slide the reed switch to the side in the direction of the cylinder rod. See photo
- Place two plates (100x185mm, thickness 2mm) on both sides between the sealing bar and the vacuum rubber. See photo

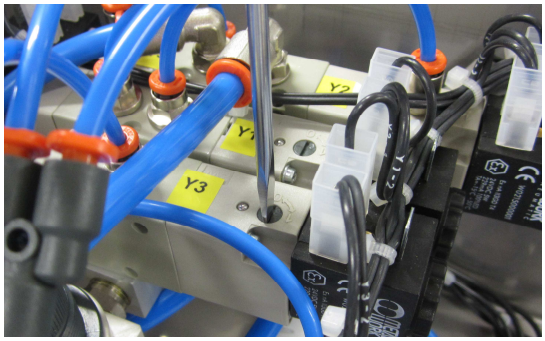


- Activate first valve Y4 (low pressure) manually with a screwdriver. See photo

CAUTION,
sealing bar
CLOSES



- Activate valve Y3 (high pressure) manually with a screwdriver. See picture.

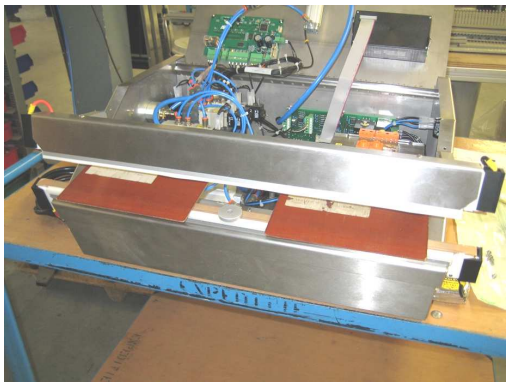


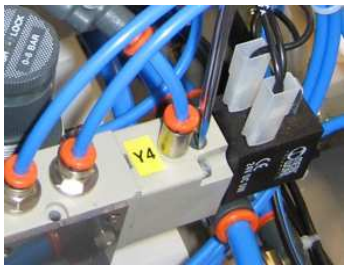
- Slide the reed switch S3 until the LED on the reed switch just goes on.
  See picture.

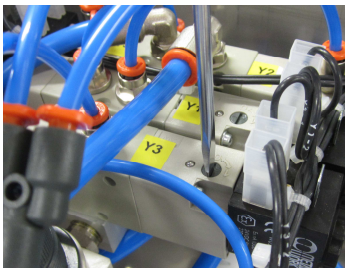
- Tighten the reed switch.
- Using a screwdriver, turn the valve Y3 "OFF" and then Y4 "OFF".

Check

- Check with a **2mm PLATE** on the left and right side between the sealing bars
- Activate valve Y4 and then Y3 manually with a screwdriver.
- CAUTION, sealing bar CLOSES !!!!
- Now the reed switch **SHOULD** light up.
- Using a screwdriver, turn the valve Y3 "OFF" and then Y4 "OFF".







- Check with a **4mm PLATE** on the left and right side between the sealing bars
- Activate valve Y4 and then Y3 manually with a screwdriver.
- CAUTION, sealing bar CLOSE !!!!
- Now the reed switch **SHOULD NOT** light up.
- Using a screwdriver, turn the valve Y3 "OFF" and then Y4 "OFF".

- Close the top cover.
- Mount the front cover.

10.10 Burn a new sealing wire

New sealing wires must first be well one time burned to stabilize material.

This is done as follows:

- Activate the "AUTOCAL" function while the seal wire is cold (see p.15 "AUTOCAL")

- When the "AUTOCAL" function has finished, the display shows the preselected calibration temperature. (default: 20°C)

  - Set the setpoint to about **200°C**,
  - Set the cooling temperature to "ambient temperature" **± 100°C**
  - Adjust the sealing time to **1,5sec**

- Make a seal without foil
- Wait about 15 minutes until the seal wire cools.

- After cooling: The controller usually indicates a value less than 20°C. Repeat function "AUTOCAL". The sealing wire is now burnt, and the change of the alloy stabilized properties.

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11 Extra control panel functions (vacuum/gas)

11.1 Control panel error codes

If an error occurs during start-up or the cycle, the programme is stopped and an error code appears on screen. The following table presents an overview of the error codes and possible solutions to the problem.

Error code	Description	Cause	Reset / solution
E01	The seal bars do not close.	Something is present between the seal bars during the low pressure cycle.	Error code is automatically reset after displaying it for 3 seconds. Check if anything is stuck between the seal bars.
E02	The vacuum tube is not retracted properly.	The vacuum tube is stuck.	Error code is automatically reset after displaying it for 3 seconds. Check if the vacuum tube can move smoothly.
E03	The seal bars do not close.	Something is between the seal bars during the high pressure cycle.	Error code is automatically reset after displaying it for 3 seconds. Check if anything is stuck between the seal bars.
E05	The vacuum tube is not retracted properly during sealing.	The vacuum tube is stuck between the seal bars during sealing.	Error code is automatically reset after displaying it for 3 seconds. Check if the vacuum tube can move smoothly.
E06	The seal bars do not open.	The seal bars are blocked. (The safety (S2) or sealing (S3) switch on the main cylinder remains activated).	Press the PROG key to reset the error code. Check why the seal bars will not open.
E07	Control panel start-up error	During start-up one or more signals are set to high: • Vacuum tube retracted. (Vacuum tube switch S1). • Seal bars closed. (Safety (S2) or sealing switch (S3) on the main cylinder). • Temperature controller (MED IN) sends reset signal.	Press the PROG key to reset the error code. Check if: • Vacuum tube extends • Seal bars are opened. • Temperature controller indicates a malfunction.

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E08	If reed contact S2 is de-energized or is not present during GAS en/or vacuum.	Reed contact S2 has been adjusted too critically	Re-adjust reed contact S2 
E10	Temperature controller malfunction.	Temperature controller does not provide a reset signal within 30 seconds of starting the cycle.	Press the PROG key to reset the error code. Check temperature controller screen.
E11	Temperature controller malfunction.	Temperature controller sends reset signal even though the seal cycle has not started yet.	Press the PROG key to reset the error code. Check temperature controller screen.
E13	External error message. (Optional).	Machine is set to F01, F02 or F03. External device sends error message.	Press the PROG key to reset the error code. Set control panel to F00. See par. 11.3. Reset external error message

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11.2 Control panel inputs / outputs

For maintenance purposes the control panel inputs can be read on screen and the outputs can be controlled manually. Complete the following steps for this:

- Switch off the machine using the main switch.
- Hold the '+' and '-' keys down and switch the machine on. Release the '+' and '-' keys when 'IN' appears on screen.
- Use the SEL key to select the inputs (IN) or the outputs (OUT).
- Hold the PROG key down until an I or O is displayed in the small screen.
- Use the SEL key to select the number of the input or output.

Screen (small)	Screen (large)	Description
I	1-0	Input 1 is set to low.
O	3-1	Output 3 is set to high.

Inputs

Input	Code	Function	Location
1	FOOT	Foot pedal	Connection at rear of machine
2	S1	Vacuum tube in switch	On side of vacuum tube construction
3	S2	Safety switch for seal bars (low pressure)	At rear of pneumatic cylinder
4	S3	Sealing switch for seal bars (high pressure)	At front of pneumatic cylinder
5	MED IN	Temperature controller (reset)	At top-right side of machine
6	OPT.	Optional inputs for external error messages (F01 to F03)	X

Outputs

Output	Code	Function
1*	SEAL	No function
2	Y1	Vacuum tube in / out
3	Y2	Vacuum off / on
4	Y3	Close seal bars HP (high pressure)
5	Y4	Close seal bars LP (low pressure)
6	Y5	Gas off / on
7*	MEDOUT	Start temperature controller signal

Valves Y1 and Y5 are integrated into 1 valve.
Use the + key to switch the output to high and the – key to switch it back to low.

* Outputs 1 and 7 automatically switch off after 0.5 sec. due to burning of seal wires.

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11.3 Changing of programme cycle, foot pedal function, error function and preheat time

The following machine settings can be changed:
- Programme cycle order U-G or G-U.
- Pedal function P01, P02 or P03.
- Error function F00, F01, F02 or F03.
- Preheat time PH0, PH1, PH2, PH3, PH4 or PH5.

You can change the machine settings as follows:
- Switch off the machine using the main switch.
- Hold the 'SEL' key down and switch on the machine. Release the 'SEL' key when 'SEL' is displayed on screen. Then the screen will show U-G or G-U.
- Use the 'SEL' key to select the setting to be changed U-G, P01, F00 or PH3.
- Use the '+' and '-' keys to select the programme cycle U-G / G-U, the pedal function P01 / P02 / P03, the error function F00 / F01 / F02 / F03 or the preheat time PH0 / PH1 / PH2 / PH3 / PH4 / PH5.
- Hold the 'PROG 0-9' key down for 2 seconds to store the modified setting.

The vacuum/gas programme cycle can be set to two different orders.

Code	Description
U-G	VAC 1 – GAS 1 – VAC 2 – GAS 2 – SEAL – COOL
G-U	GAS 1 – VAC 1 – GAS 2 – VAC 2 – SEAL – COOL

The foot pedal can be set to three different functions.

Code	Description
P01	Hold pedal down until the first step of the programme starts. Releasing sooner stops the programme.
P02	Hold pedal down until the seal bar is closed. Pressing it again interrupts the current step of the programme and the programme continues with the next step.
P03	Hold pedal down until the SEAL step of the programme starts (the seal bars are then closed under high pressure). Releasing sooner stops the programme.

The control PCB of the Magvac also includes an error function. The error function means that an external error signal, e.g. from another machine, can be connected to the Magvac. In the event of an external error signal, the Magvac will stop for a malfunction and show the error code E13 in the display. Four different error functions can be set. The error function is not used by default and is therefore set to F00 ex works.

Code	Description
F00	Control PCB does not respond to input (Opt-IN).
F01	If input (Opt-IN) is high for 0.2 seconds the display will show error code E13. Press the PROG key to reset the error code.
F02	If during sealing input (Opt-IN) is high for 0.2 seconds the display will show error code E13. Press the PROG key to reset the error code.
F03	If during sealing and cooling input (Opt-IN) is high for 0.2 seconds the display will show error code E13. Press the PROG key to reset the error code.

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The Magvac control PCB also has a **PRE-HEAT function**. This function enables PRE-HEAT to be set to between 0.1 and 0.5 sec and is shown in the display as
PH1-5 for "Early PRE-HEAT" and as **L PH1-5** for "Late PRE_HEAT". The PH function is set to L PH3 by default.

The sealing wires are pre-heated during the time that the pre-heat function is active. This causes the sealing wires to expand before the seal bars are closed. Pre-heating helps prevent the sealing wires kinking. If the pre-heating time is too long, the sealing wires and/or PTFE may burn. The pre-heating time starts after the vacuum or gassing cycle and can be set to between 0 and 0.5 seconds. The previously started vacuum or gassing cycle continues during the pre-heating time.

Setting the pre-heating function

Pre-heating has been divided into two main functions; late pre-heating L (default) and early pre-heating E.

Late pre-heating does not start until the vacuum tube has retracted completely. The advantage of this procedure is that the pre-heating time no longer depends on the vacuum tube retraction speed. This eventually creates a more consistent seal.
Early pre-heating starts simultaneously with the vacuum tube retraction. The advantage of this is that the wires have already been pre-heated when the vacuum tube is retracted from between the bars as a result of which the machine will start sealing immediately, resulting in less loss of vacuum.

The times of both functions can be set as well. However, if the time is set too high, there is a risk of the wires and/or the PTFE burning. Late pre-heating can be set from 0 to 0.5 second. Early pre-heating can be set from 0.1 to 0.5 second.

	Code	Description
E	**PH1-5**	Early pre-heat setting 0.1 - 0.5 sec.
L	**PH0**	Late pre-heat setting 0.0 sec. (no preheat not recommended)
L	**PH1-5**	Late pre-heat setting 0.1 – 0.5 sec. (default setting is L PH3)

The Magvac control PCB also contains the settings for PR0 to PR2 and is shown in the display as
PR1-2
The default setting for the PR function is PR0.

Code	Description
PR0	The values for vac, gas, seal, and cooling can be changed or programmed as usual.
PR1	The values for vac, gas, seal, and cooling CANNOT be changed or programmed. *It must be possible to view the settings via the "SEL" button*.
PR2	See PR1 + the selection of programs P1 to /m P9 cannot be changed. The default setting is P1. *It must be possible to view the settings via the "SEL" button.*

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The Magvac control PCB also has a **vacuum tube waiting time function**. This function enables the time between the opening of the welding bars and the forward movement of the vacuum tube to be set. The vacuum tube waiting time values can be set from vt1 to vt5 and are shown in the display as **vt1-5** The default setting for this function is vt2

Code	Default	Description
vt1 to vt5	Default=vt2	vt2=2sec, vt3=3sec. etc

The Magvac control PCB also has a **waiting time at end of cycle function**. This function enables the waiting time between the end of a cycle and the start of a new cycle to be set. The waiting time values can be set from EC1 to EC5 and are shown in the display as **EC1-5** The default setting for this function is EC2

Code	Default	Description
EC1 to EC5	Default=EC2	EC1=1sec , EC2=2sec. etc

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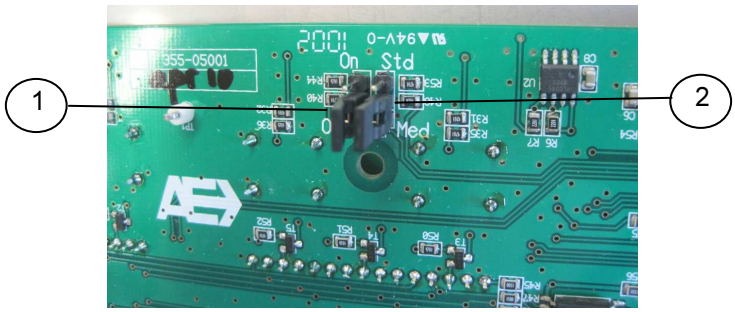
11.4 Control panel (vacuum/gas) PCB jumpers

Two jumpers are located at the rear of the control PCB.



These two jumpers are used to set the following:

1	Jumper ON / OFF	2	Jumper STD / MED

The current jumper settings are visible on screen. Switch on the Magvac using the main switch. After the software version the jumper settings are displayed. The jumper code on screen starts with a J.

Code in screen	Jumper	Machine
J00	OFF / MED	MVMED

11.5 Resetting to factory settings

Both the programme cycles (PRG) and the machine settings (RES) can be reset to the factory settings (see following table).

Complete the following steps to reset the machine to the factory settings:

- Set the main switch to 0/OFF.
- Hold the 'PROG' key down and switch on the machine. Release the 'PROG' key when 'PRG' is displayed on screen.
- Use the 'SEL' key to select the settings PRG or RES to be reset.
- Use the '+' and '-' keys to select YES.
- Hold the PROG key down for 3 seconds to reset the selected settings.

Programme cycle (PRG)		
Setting	**Time (s)**	
	Prog. 1 - 8	Prog. 9
VAC 1	10	Off
GAS 1	Off	Off
VAC 2	Off	Off
VAC 3	Off	Off
SEAL	X	X
COOL	X	X

Machine settings (RES)	
Setting	**Value**
Programme cycle order	U-G
Pedal function	P02
Error function (optional)	F00
Preheat time	PH3
Prog.function	PR1
Vacuumtube	vt2
END cyclus time	EC2

Attention: all settings are lost when the machine is reset.

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11.6 Temperature controller configuration menu

For the correct functioning it is important not to change certain settings. This is clearly indicated in the following table.

The configuration menu can be used to change the configuration settings. Complete the following steps to change a setting:

- In the start screen, hold the 'MENU' key down for 2 seconds.
- Use the 'Menu' key to select the configuration parameter.
- Set the value using the '▲' and '▼' keys.
- Press the 'Enter' key to store the value.

CONFIGURATION 201
Language: English
D-GB-F-I-NL-E-S-P
FIN-DK-TU-GR

You can set one of the following languages:

D: German, **GB**: English, **F**: French, **I**: Italian,

NL: Dutch, **E**: Spanish, **S**: Swedish, **P**: Portuguese,

FIN, Finnish, **DK**: Danish, **TU**: Turkish, **GR**: Greek.

CONFIGURATION 202
Factory settings:
Recall Ropex
settings

Do not change this setting!
Do not press ENTER!

For info see end of this paragraph

CONFIGURATION 203
Temperature coeffi-
cient: VARIABLE
(400…4000ppm)

Change this setting only in combination with the use of an Audion Temperature (ATM).

CONFIGURATION 204
Temperature coeffi-
cient: 740ppm
(400…4000ppm)

Change this setting only in combination with the use of an Audion Temperature (ATM).

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CONFIGURATION 205
Range: max. 300°C
(200/300/400/500°C)

Do not change this setting!

CONFIGURATION 206
Max. temp.: 200°C
(0 … 200°C)

Do not change this setting!

CONFIGURATION 207
Set achieved: -5K
(-99 … -5K)

Do not change this setting!

CONFIGURATION 208
Set exceeded: 5K
(5 … 99K)

Do not change this setting!

CONFIGURATION 210
Cool mode: absolute

You can set the 'cool mode' as follows:

Absolute: in °C

Relative: as % of the sealing temperature

Time: in seconds.

CONFIGURATION 211
Sealing time starts
at set-temp achieved

Do not change this setting!

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CONFIGURATION 212
Relay K1 generates
End of cycle impulse

Do not change this setting!

CONFIGURATION 213
Blockade of the key
Hand key:
(OFF/ON)

Do not change this setting!

CONFIGURATION 214
Cycles: 85421
Reset with ENTER

A counter keeps track of the number of seals performed.

You can reset the counter with ENTER.

CONFIGURATION 217
Temperature diagnosis:
ON
(OFF/ON)

Do not change this setting!

CONFIGURATION 218
Time delay for
temp. diagnosis: 0.8s
(0.0 … 9.9s)

Do not change this setting!

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CONFIGURATION 219 Heatup time- out: OFF (0.0 … 99.9s)

Do not change this setting!

CONFIGURATION 221 AUTOCOMP: OFF OFF (OFF/ON/AUTO)

Do not change this setting!

CONFIGURATION 225 Temperature unit: Celsius (Celsius / Fahrenheit)

CONFIGURATION 226 Time: 16:48:37 Date: 16/06/10 (Save with ENTER)

The current time and date.

CONFIGURATION 240 Sealing mode: double

The sealing mode can be set as follows:

Double: Both seal bars are heated up.

Single: Only the lower seal bar is heated up.

CONFIGURATION 241 Sensor: force

Do not change this setting!

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CONFIGURATION 242
Min. force: 700N
(0 … 1500N)

Do not change this setting!

520 MODEL : 700N

720-1020 MODEL : 900N

CONFIGURATION 243
Max. force: 850N
(0 … 1500N)

Do not change this setting!

520 MODEL: 850N

720-1020 MODEL: 1050N

CONFIGURATION 244
Actual force: 650N
For tare press
ENTER key

After changing this setting the load cell must be recalibrated.

520 MODEL: 650N

720-1020 MODEL: 850N

CONFIGURATION 245
Actual force: 650N
Ref. force: 100N
(0 … 1500N)

After changing this setting the load cell must be recalibrated.

CONFIGURATION 247
Force diagnosis
At end of heating phase

Do not change this setting!

CONFIGURATION 249
Foot switch
holding time: 0.2s
(0.0 … 2.0s)

Do not change this setting!

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11.7 Costumer settings

The controller factory settings can be entered or be reset in step 202 in the Configuration menu. You can add costumer settings to the Ropex settings.

1. "Recall Ropex settings": do not use

2. "Recall Costumer Settings"
Selecting this option restores the "Costumer Settings" which were saved as described in 3

3. "Costumer Save Settings" (factory setting)
Selecting this option saves the values that are set in the controller settings and configuration menus as a "costumer settings" at this time
This "costumer settings" are independent of the Ropex settings.

These settings are saved by pressing the "ENTER" button for about 2 seconds

To cancel the new settings by pressing the cursor "UP" or cursor button. "DOWN"
Step 203 then appears on the screen

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Instellingen MV Medisch:

Instellingen Ropex
RES430 (V2.04)

101	100 gr. C.
103	0,0 s.
104	1,0 sec

105	60 gr. C.
106	Off
107	xx

201	ENGLISH
202	xx
203	Variabel
204	ca. 800 - 1100 ppm **
205	300
206	200
207	-5 K
208	5 K
210	absolute
211	at set temp achieved
212	End of cycle impuls
213	HAND key
214	0 (na testen weer op 0 zetten)
217	ON
218	0,8 s
219	OFF

221	Off
225	Celsius
226	Datum / Tijd
240	double
241	force
242	700 N
243	850 N
244	0
245	100 N (10 kg)
247	End of heating phase
248	xx
249	0,2 s
250	
251	

CONFIGURATION MENU –
LOCKED ---

** ppm waarde vaststellen met ATM thermometer

Sealforce settings:	**520**	**720/1020**	
baseforce	650 N	850N	(Seal bars open – with spring pressure setting)
Sealforce	750 N	950N	(without foil - with stop-bolt adjustment)

11.8 Locking / unlocking of configuration menu

Complete the following steps to lock or unlock the configuration menu:

- Switch off the machine using the main switch.
- Hold the 'MENU' key of the temperature controller down and switch on the machine. Release the 'MENU' key when the message configuration menu not blocked or blocked appears on screen. See pos. 1 in fig. 5.

The configuration menu is now unlocked or locked. The screen only shows if the lock is active or not. If the configuration menu is locked, only the language can be changed; only the set values of the other settings can be viewed.

11.9 Temperature controller alarm messages

If an error occurs during sealing an ALARM message will appear on screen. This states a brief description of the problem and the solution. (See also par. 11).

ALARM
ERROR: seal wire
ERROR code: 104
Execute Autocall

ERROR:	description of error
ERROR code:	error code
Execute Auto call:	description of the solution

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12 Technical details

Description	520 MVMED	720 MVMED	1020 MVMED
Dimensions (mm)	See chapter 4	See chapter 4	See chapter 4
Weight (kg)	34	36	40
Seal length (mm)	520	720	1020
Seal width (mm)	8	8	8
Sealing temperature (°C)	Min 40, max 200	Min 40, max 200	Min 40, max 200
Sealing temperature tolerance (°C)	±5	±5	±5
Power (W)	2500	3000	2600
Voltage (V)	240 – 16 A	240 – 16 A	240 – 16 A
Frequency (Hz)	50/60	50/60	50/60
Noise level (dB(A))	≤ 85	≤ 85	≤ 85
Compressed air (bar)	6 bar, max. 10 bar	6 bar, max. 10 bar	6 Bar, max. 10 Bar
Gas pressure (bar)	Max. 1 bar	Max. 1 bar	Max. 1 Bar
Nominal suction capacity (standard)	11.3 m3/h	11.3 m3/h	11,3 m3/h
Nominal suction capacity 20M3 pump (option)	20,3 m3/h	20,3 m3/h	20,3 m3/h
Max hight for use	Max 2000 mtr above sea-level		

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13 Problems and solutions

If you cannot resolve a malfunction, please contact your dealer or Audion Elektro BV directly.

POWER SUPPLY	
PROBLEM	**SOLUTION**
The Magvac is not working and the green main switch is not lit.	Check if the main switch is on. Check if the mains cable is properly connected. Check the emergency stop. (option) Disconnect the mains cable from the Magvac and check the fuses underneath the mains input. If the above does not resolve the situation, please contact your dealer or Audion Elektro BV.
ELECTRICAL FAULTS	
PROBLEM	**SOLUTION**
The fuses are constantly blowing.	Check the connections of the seal wire connecting wires. Check if the seal wires are short-circuiting.
The Magvac sometimes loses power.	Check if the mains cable is properly connected.
SEALING FAULTS	
PROBLEM	**SOLUTION**
The Magvac is working, but is not sealing properly.	Check if the sealing time is not set to 0 seconds and set the sealing parameters to the correct values. Replace the seal wires. Then contact your dealer or Audion Elektro BV.
The seal is incorrect: wrinkled, too stretched or its thickness is not uniform	Check the sealing parameters by performing a few sealing tests. Examples are sealing temperature too high, sealing time too long or cooling temperature too high for the material you are using. Check if the edge of the bag to be sealed is properly cleaned and dry. Establish if the wrinkles or folds are caused by the bag being overfilled. Check if the PTFE shows any signs of wear.

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Temperature controller alarm codes	
Alarm code	**Solution**
104	Perform the Autocal. If the Magvac takes longer than usual to complete a sealing cycle after performing the Autocal procedure, switch off the machine and test the lower seal wire; replace it if necessary. See below if the machine shows error code 307 or 308 after performing the Autocal.
307, 308 or 309 Temperature too low or too high.	Press the Reset key. If the Magvac still shows the same error codes after performing the reset, switch off the machine and test both seal wires; replace them if necessary.
817 The sealing pressure (‘actual force’) during sealing is less than the ‘min. force’.	Press the Reset button check again. Check, while **the seal bars are open**, whether the “actual force” is correct. **650N** (520 model) of **850N** (720 + 1020 model). If not, readjust the basic force of the spring. See chapter "Setting / changing seal pressure" 720 - 1020 model), the sealing pressure (with seal bars open) must be increased. Check **during sealing** without foil, whether "actual force" is correct.**750N** (520 model) of **950N** (720 + 1020 model) If not, adjust the seal pressure again. See chapter 10.6 If you encounter a malfunction not described above, contact your dealer or Audion.
818 The sealing pressure (‘actual force’) during sealing is greater than the ‘max. force’.	Press the Reset button. Check, while **the seal bars are open**, whether the “actual force” is correct. **650N** (520 model) of **850N** (720 + 1020 model). If not, readjust the basic force of the spring. See chapter "Setting / changing seal pressure" 720 - 1020 model), the sealing pressure (with seal bars open) must be increased. Check **during sealing** without foil, whether "actual force" is correct.**750N** (520 model) of **950N** (720 + 1020 model) If not, adjust the seal pressure again. See chapter 10.6 If you encounter a malfunction not described above, contact your dealer or Audion.

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14 Recommended spare parts

520 MVMED		
Article number	**Description**	**Number per machine**
355-03007	Top PTFE cover 520 mm	2
355-03025	Seal wire 8 mm 520 mm	2
355-03006	Bottom PTFE 520 mm	2
355-03009	Silicone rubber 520 mm (red)	2
355-02022	Vacuum rubber 520 mm (white)	2
178-05040	Reed sensor	2
AUDC	Audiocone, anti-sticking paste	1
355-1202	Spare parts set for 520 MVMED consisting of: • 10x PTFE cover 520 mm • 10x Seal wire 5mm 520 mm • 5x Bottom PTFE cover 520 mm • 5x Silicone rubber 520 mm (red) • 2x Vacuum rubber 520 mm (white) • 1x Audiocone, anti-sticking paste	

720 MVMED		
Article number	**Description**	**Number per machine**
355-03017	Top PTFE cover 720 mm	2
355-03035	Seal wire 8 mm 720 mm	2
355-03016	Bottom PTFE 720 mm	2
355-03019	Silicone rubber 720 mm (red)	2
355-02032	Vacuum rubber 720 mm (white)	2
178-05040	Reed sensor	2
AUDC	Audiocone, anti-sticking paste	1
355-1204	Spare parts set for 720 MVMED consisting of: • 10x Top PTFE cover 720 mm • 10x Seal wire 8mm 720 mm • 5x Bottom PTFE cover 720 mm • 5x Silicone rubber 720 mm (red) • 2x Vacuum rubber 720 mm (white) • 1x Audiocone, anti-sticking paste	

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1020 MVMED		
Article number	**Description**	**Number per machine**
355-03027	Top PTFE cover 1020 mm	2
033512-62	Seal wire 1020 - 8mm	2
355-03046	Bottom PTFE cover 1020 mm	2
355-02029	Silicone rubber 1020 mm (red)	2
355-02042	Vacuümrubber 1020 mm (white)	2
178-05040	Reed sensor	2
AUDC	Audiocone, anti-sticking paste	1
355-1206	Spare parts set for 720 MVMED consisting of: • 10x Top PTFE 1020 mm • 10x Seal wire 8mm 1020 mm • 5x Bottom PTFE cover 1020 mm • 5x Silicone rubber 1020 mm (red) • 2x Vacuümrubber 1020 mm (white) • 1x Audiocone, anti-sticking paste	

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14.1 Service onderdelen

Part	520 MVMED	720 MVMED	1020 MVMED
LOADCELL (300KG)	355-02403		
COMPRESSION SPRING	355-02404		
M8 BAR END	355-02406		
DRAW SPRING	355-02415		
FUSE 10AT 20X5MM	355-05010		
SEAL CONTROLLER	355-05402		
PIN FOR CALIBRATION POSITION	355-06003		
M6 SCREW HOOK	355-06401		
TOGGLE LEVER ASSY	033720-90		
POWER CORD 3*0.75 VMVL	054008		
FOOT SWITCH ASSY	054404-90		
COMPACT CMPC uni Ø40x80 MALE	175-0704080		
5/2 VALVE PILOT ASS 1/8''	175-0706018A		
FILTER REGULATOR	175-0708114A		
PRESSURE GAUGE RND 40 1/8'' 12BAR	175-0709018A		
VALVE 3/2 NC 1/8"	175-0711018		
DAMPER STAINLESS STEEL 1/8"	175-0716018		
OR VALVE 4MM	175-0768400		
MAINS FILTER	175-1559005		
COIL 220V 50/60Hz 2W	175-1752225		
REED SENSOR	178-05040		
PRESSURE VALVE 1/8" 08	178-07018		
SPEED VALVE 4mm	480701		
PRESSURE GAUGE	480703		
TRAFO	356-05001		

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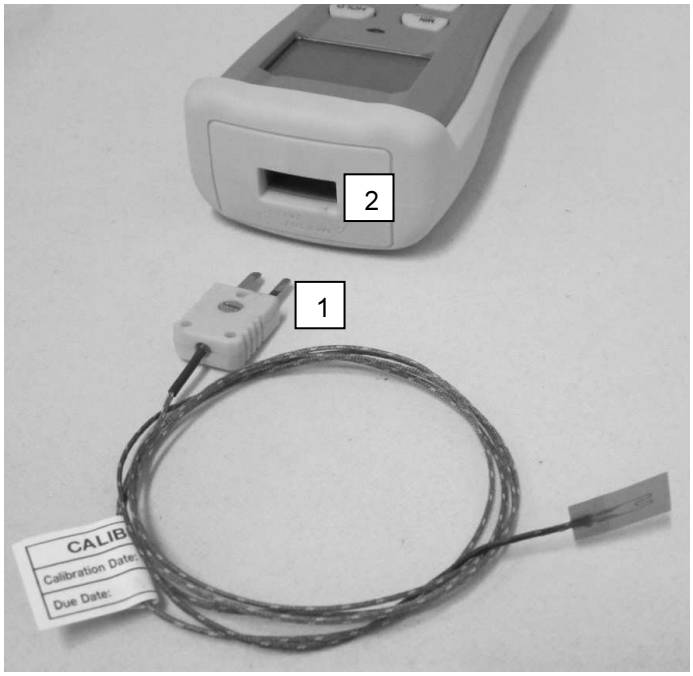
15 Operation ATM

Operation

The ATM must only be operated by properly authorized staff.
Before switching on the sealer that is to be adjusted, check that all safety features are in place and work.
The user must use their personal safety equipment.
The user must stand in front of the sealer that is to be adjusted, so as to have easy access to the operating panel and the emergency stop.



Switching on

Connecting the sensor
Proceed as follows to switch on the ATM:
· Push the sensor connector (no. 1) into the sensor socket on the ATM (no 2). (the connector fits in only one way).
· Press the ON/OFF button.

Switching off

Proceed as follows to switch off the ATM:
· Press the ON/OFF button.
· Pull the sensor connector (no. 1) out of the ATM.

We recommend storing the ATM in its protective case when it is not in use.

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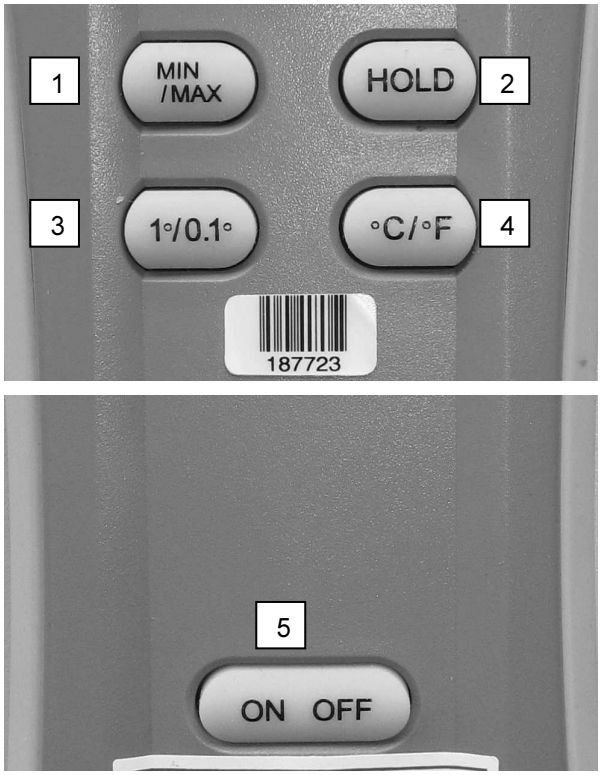

No.	Name	Function
1	Min/max	Press while measuring to automatically register the minimum and maximum temperatures. Press this key briefly to toggle the display between the maximum and minimum temperatures measured. Pressing and holding the key for 2 seconds erases the minimum and maximum temperatures.
2	HOLD	Press to stop measuring. The current temperature is shown on the display and the ATM stops measuring. Press again to resume measuring.
3	1°/0.1°	To set the display resolution. Press to toggle between resolutions of 1° C or 0.1° C. A resolution of 0.1° C is only available with temperatures of below 200° C.
4	°C/°F	To set the temperature unit. Press to toggle between °Celsius or °Fahrenheit
5	ON OFF	Press to turn the ATM on or off.

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16 To discard the Magvac

The logo below indicates that the equipment concerned is not to be disposed of as ordinary waste at the end of its useable life. The equipment is to be delivered to a suitable depot that will dispose of the equipment in a proper way in accordance with the legislation on this subject, or to the supplier of new equipment in case of replacement. The owner of the equipment is responsible for proper disposal of the equipment. For further information we advise you to contact your local waste facility.

Appropriate disposal of Waste of Electric and Electronic Equipment prevents unnecessary pollution of the environment and negative influence on general health.

17 Conditions of guarantee

17.1 Liability

- We exclude any liability as far as it has not been arranged by law.
- Our liability will never exceed the amount of order.
- Subject to the general valid regulations of the law, we are not obliged to any compensation of damage of which kind ever, directly or indirectly, under which company damage, to movable' and immovable or to persons, both to the opposite party as to third persons.
- In no way we are liable for damage arisen from or caused by the supplied or by the unsuitability of this for the purpose for which the opposite party has purchased the Sealer.

17.2 Guarantee

- With due observance of the restrictions stated hereafter, we allow 12 months of guarantee to the products supplied by us. This guarantee is restricted to the occurring manufacture errors and does not imply interruptions caused by any form of wear spare parts subject to use.
- To spare parts or enclosures obtained from third persons we do not give longer guarantee than this third supplier does.
- Guarantee expires if the opposite party and/or third parties associated make improper use of the supplied.
- Guarantee also expires if the opposite party and/or third parties associated execute activities and/or modifications to the supplied.
- In case we replace spare parts to fulfill our guarantee engagement, the spare parts replaced become property of AUDION ELEKTRO B.V.
- In case the opposite party does not come up completely, partially or does not come up in time to the obligations arisen from the engagement closed between the parties, we are not obliged to guarantee as long as the situation continues.

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AUDION ELEKTRO®

EC-DECLARATION OF CONFORMITY

AUDION ELEKTRO B.V., located at the Hogeweyselaan 235 in Weesp, The Netherlands

herewith declares that the

MAG VAC SEALER MEDISCH

Type:

520 MVMED-2 ; 720 MVMED-2 ; 1020 MVMED-2

- is in conformity with the provisions of the following EEC directives: 2014/35/EU Low Voltage Directive ; 2006/42/EC Machine Directive ; 2014/30/EU EMC-Directive ; RoHS 2 2011/65/EU Directive ;

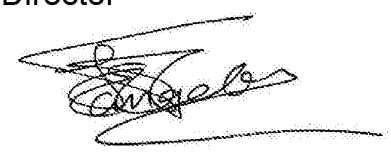
- and that the following (parts/clauses of) harmonized standards have been applied:

EN-ISO 11607-2; EN-ISO 12100; EN-ISO 4414; EN 1037+A1; EN-IEC 60204-1;

Weesp 14-3-2017

E.Tangelder
Director

PGR355B



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