

MINIRO H

OPERATION

MANUAL



WARNING

BEFORE EMPLOYING THE MACHINE, CAREFULLY READ THIS BOOKLET, FOR CORRECTLY USE IT IN ACCORDANCE WITH THE ESSENTIAL SAFETY REQUIREMENTS.

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	CE DECLARATION OF CONFORMITY	

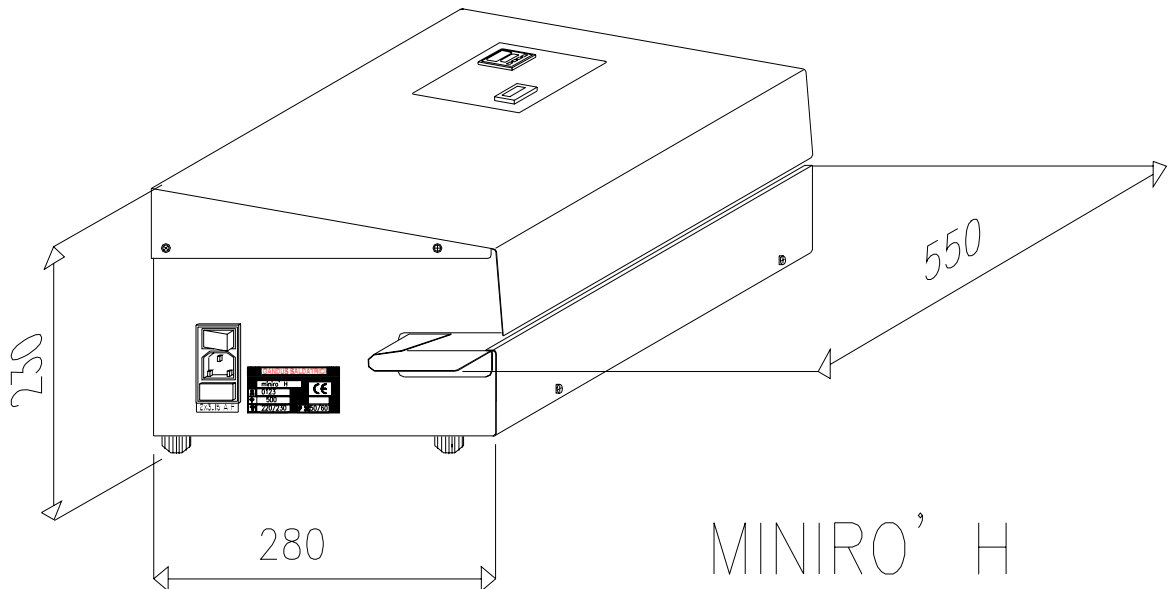
SYMBOLS



WARNING it means there is a danger



NOTICE it means you have to take note



1 INTRODUCTION

Use and safekeeping of this manual

We thank you for the trust you put in us by buying our heat-sealer series MINIRO' H.

We are certain that, following correctly the instructions in this manual, you will find the quality of this product worth your appreciation.

Would you please read the instructions carefully and let all people who are likely to use this machine read them as well.



ATTENTION

All persons involved in the operation of this heat-sealer whether their task is production, maintenance or revision must read this instruction manual.

The instructions in this use and maintenance manual indicate, for this machine, the correct operations as intended in its design and technical specifications.

This booklet, provided with each heat-sealer, is to be considered an indispensable part of the equipment.

IT MUST BE KEPT SAFE FOR CONTINUOUS CONSULTATION for as long as the machine is operated.

This manual must be kept always close to the heat-sealer at hand of the operator for easy consultation.

In case of loss or damage, the consumer is invited to request another copy to the manufacturer specifying: series, item, year of manufacture, serial number, as engraved on the small plaque on the side of the machine (see picture n°1).

The manufacturer reserves the right to improve or modify its products, without updating the items issued previously or their manuals.

GANDUS SALDATRICI S.r.l. is not responsible for direct or indirect damages derived from an incorrect use of the heat-sealer, specifically:

- employing this heat-sealer for other use than the one specified in this manual
- Failure to perform the indicated maintenance
- Modifications of the product unauthorized by GANDUS SALDATRICI S.r.l.
- Use of spare parts not produced by the manufacturer and not specifically indicated for the item purchased.
- Any failure to follow the instructions provided
- Unforeseeable events.

2 EXPECTED USE

The GANDUS MINIRO' H is a quick continuous heat-sealer for closing hermetically sterilization bags with surgical instruments and disposable articles made with multilayered envelopes like polyester/polyethylene, or other multilayered envelopes bags like paper/polyethylene, aluminium/polyethylene, etc.

The heat-sealer is designed to be used by only one operator.



ATTENTION

THE MACHINE MUST NOT BE USED FOR OTHER USE THAN THE ONE ABOVE MENTIONED, FOR WHICH THE MACHINE HAS BEEN DESIGNED AND BUILT.

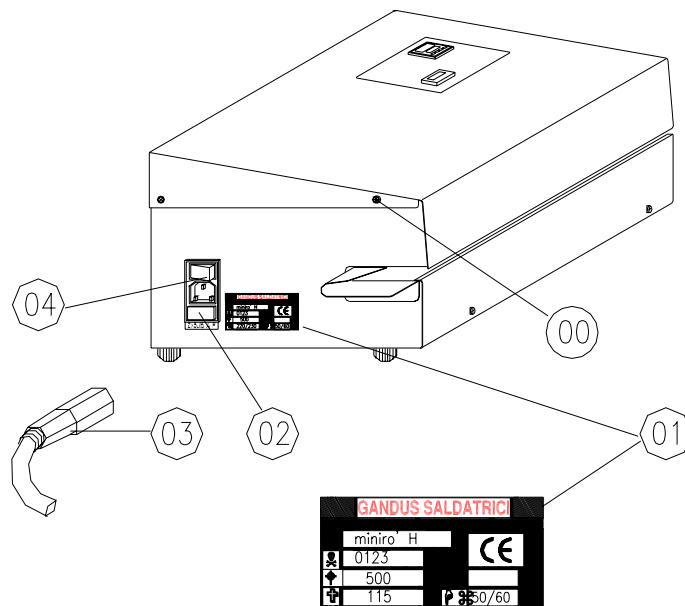
THE HEAT SEALER MUST NOT USE FOR THE SEALING OF SINGLE PLASTICS FILMS LIKE POLYETHYLENE, POLYPROPYLENE, PVC, ETC.

3 CHARACTERISTICS

Minirò H

- Sealing speed 8 m/1'
- Electronic thermoregulator 50°- 200° C ($\pm 1\%$) or in alternative 122° - 399° F ($\pm 1\%$) equipped with autotest and automatic setup of the temperature parameters
- Automatic stop of the heat-sealer if the temperature is $\pm 5^\circ$ from the setting value according to the material.
- Sealing width 12 mm
- Free edge 0 - 20 mm
- Pre-adjusted sealing pressure
- Power supply 230 V 50-60 Hz
- Power absorption 500 W
- Acoustic emission level under 70 dB(A)
- Dimensions without optionals (width x h x depth)
550x280x230 mm
- Net Weight: 18 Kg
- Built to: CEI EN 60204 - 1
- Seals to: DIN 58953 P-7
- Built to: CE rules

N.B. The GANDUS SALDATRICI S.r.l. reserve the right to modify the machines they construct without any obligation respect to those previously supplied.



pict. 1

4 MOVING

It is very important to keep the original packing for any future moving.

In order to avoid damage when unpacking, or for subsequent movements, lift only from below.



ATTENTION

The heat-sealer could be damaged if lifted or moved using other parts such as casing, conveyors, etc.

5 TRANSPORT

We suggest to use the original packing during the transport.

We suggest to handle with care and to conserve the packing machine, in dry environment, following the positioning symbols.



ATTENTION

THE OPERATOR MUST BE PROPERLY TRAINED AND HAVE FULL KNOWLEDGE OF THE CONTENTS OF THIS MANUAL

6 SAFETY RULES



UNPLUG THE MACHINE FROM THE MAIN POWER SUPPLY (n°03 pict. 1) BEFORE ANY MAINTENANCE OPERATION.



DO NOT OPERATE WITH THE HEAT-SEALER IF THE SAFETY PANELS ARE OPEN OR REMOVED.

- To ensure its good function, maintain the heat-sealer clean.
- Before cleaning procedures on the heat-sealer machine unplug it (n°03 pict. 1) from the main supply.
- Do not clean the heat-sealer with fluid or spray cleaners. Wipe the outside with a slightly moist cloth and clean the inside with compressed air.
- Never introduce in the sealing area anything but the bags to seal.
- Make sure that any liquid be never introduced into the machine through the aeration leaks.



In case of accidental introduction of some liquids, switch OFF immediately the main electrical supply and have the machine checked by qualified assistance before restart the sealing machine

- Do not introduce in any opening of the heat-sealer machine metallic objects, to avoid electrical shocks.
- The heat-sealer must be used only indoor and in a dampness free environment
Temperature: 5° ÷ 40° C (41° - 104° F).
Humidity relative: 30% ÷ 95% (without condensation)
- Do not operate with the heat sealer in environments with risk of fire or explosion.
- Do not use the heat-sealer in packaging inflammable, corrosive or explosive substances or in any case with dangerous products for the operator.
- Use only original spare parts.
- It is advisable to have the heat-sealer machine checked by a qualified technician every year.
- Do not change the set parameters while the heat-sealer is working.



ATTENTION

BEFORE ELECTRICAL WIRING, CHECK IF THE DATA ON THE IDENTIFICATION PLATE CORRESPOND TO THE LOCAL POWER SUPPLY (Picture n°1).

7 INSTRUCTIONS FOR USE

7.1 Electrical wiring

Check that the main luminous switch (n°04 pict. 1) is in the "O" position (OFF).

Plug the main power supply cable (n°03 pict. 1) in to a single phase earthed power source with a magnetothermic switch mounted in the circuit, in accordance with the law.

The heat-sealer is now ready for use.

7.2 Installation

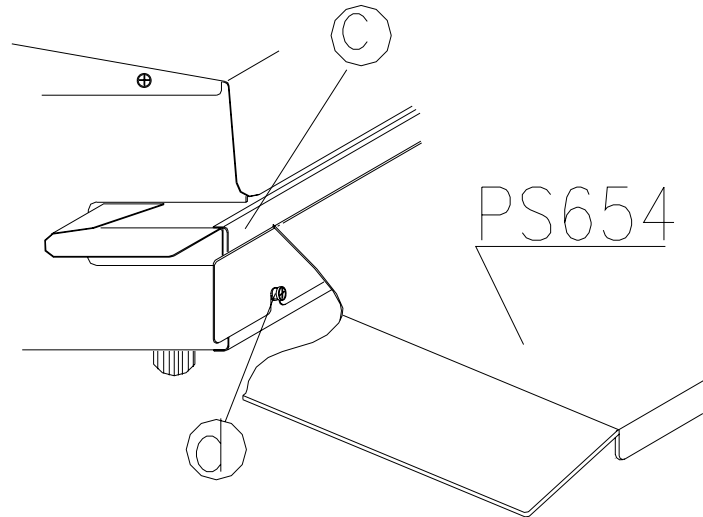
The equipment can be used in any working environment that is dry and without excessive dust.

Position the sealer on a work surface, leaving a large enough space in front of it for the bags to run over.

Ensure that the heat sealer is at least 60 mm from the back wall in order to allow a perfect release of the heat produced inside and that laterally it has the needed room for comfortable loading and unloading of the bag that are being sealed.

7.2.1 guide plane

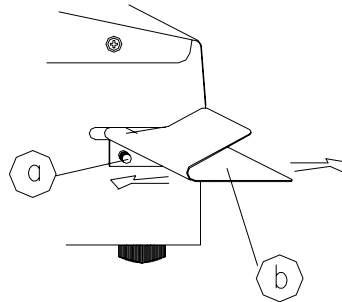
If the machine is provided with the guide plane PS 654, position it as indicated in picture n°2 inserting the two buttonholes on the special seats of the fixing screws "d" pict.2 of the front panel "c" pict.2



Pict. 2

7.2.2 infeed guide

Loosening the locknut "a" (pict. 3) position the infeed guide "b" (pict. 3) so that a non-sealed margin is left above the sealed part width up to 20 mm., in order to open easily the sterilization bag.



pict. 3

7.3 Operation



To avoid imperfect seals, bad functioning or blocs of the sealing machine, infeed the sealing zone of the pouches stretched and without labels or any other adhesive.

According to the DIN 58953 P7 the pouch has to be filled in for max 3/4 of its length.

7.3.1 Switch on the machine

Switch on the machine through the main green luminous switch (n° 4 fig. 1).

The thermoregulator now makes the autotuning phase, marked up by the simultaneously switch on of all the numbers on the display (n° 7 fig. 4).

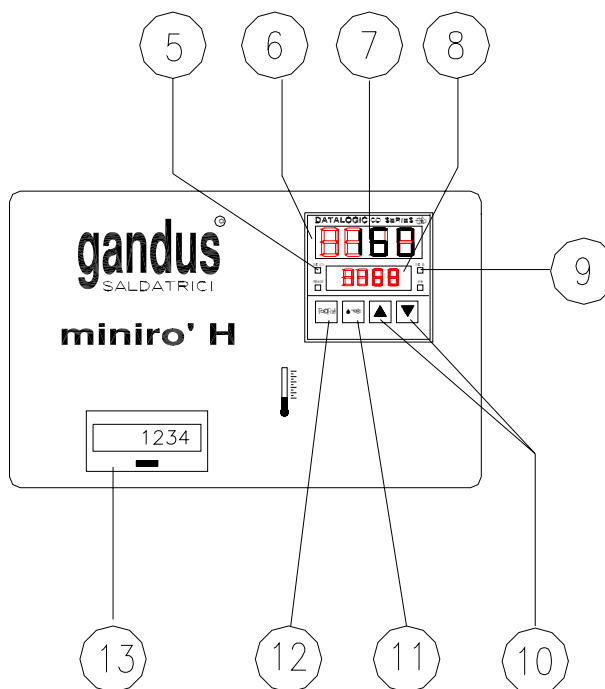
You have to wait for some seconds before setting the sealing temperature.



If, after approx. 5 sec., the autotuning phase does not finish and the display with red light (n°7 pict.4) keeps on stopped in this position (see pict. 5a), switch off the machine and contact the supplier.

At the end of the autotuning phase the following messages will light:

- the numbers on the display (n°7 fig.4), showing the current sealing temperature on the bars
- the numbers on the display (n° 8 fig. 4), showing the set temperature on the bars
- the led ON1 (n° 5 fig.4), showing the heating phase on the bar



pict. 4

- 5 red led ON1: showing the heating phase
- 6 thermoregulator command panel
- 7 display with red light, showing the current sealing temperature
- 8 display with green light, showing the set temperature
- 9 yellow led ON2, showing the reached temperature
- 10 keys to adjust the temperature
- 11 set parametre key, programming the thermoregulator
- 12 key programming thermoregulator
- 13 counter bags with zero setting key



During the heating phase, the automatic system stops the sealing machine, if the temperature on the sealing bars is 5 °C less or more than the set one.

Before reaching the set value, the temperature moves around the set value, during this phase the led ON1 (n°5 fig. 4) flashes.

When, after a few minutes, the sealing bars have reached the set temperature, the led ON1 (n°5 fig.4) switch off and the led ON2 (n°9 fig.4) switch on. Now the operator can start working.

The thermoregulator will work in order to keep the temperature on the set value (± 1%).



The led ON2 (n°9 fig.4) will keep lighting only within the range of ± 5° than the set value

Introducing the first pouch into the infeed guide, automatically the motor will start working and the pouch will be run into the machine.

If no pouches are introduced for approximately 10 sec., automatically the motor (n°50 fig.11) will stop, in order to avoid useless consumption and will run again when another pouch will be introduced.

The set temperature will be kept constant

At the end, switch off the main green switch (n°04 fig.1).

7.3.2 Sealing temperature adjustment

Through the sealing temperature adjustment keys (n°10 fig.4) do as follows:

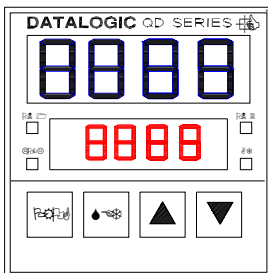


Temperature increase key: pressing this key, the display (n°8 fig.4) increases the visualized value



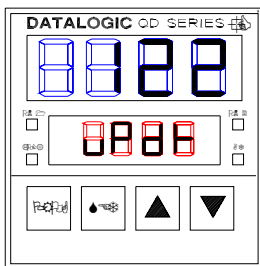
Temperature decrease key: pressing this key, the display (n°8 fig.4) decreases the visualized value

When the SET value is reached, wait that the display (n°8 fig.4) shows the message as per fig. 5b



message on the display during the autotuning phase

fig. 5a



UPTD: message on the display as confirmation of modification on the set temperature

fig. 5b

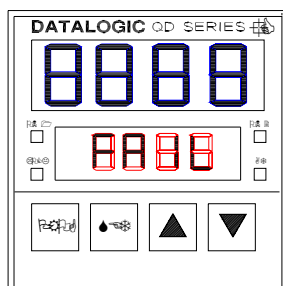


The eventually switching off of the led ON2 (n° 9 fig. 4) and the simultaneous stopping of the infeed system means that the temperature is more than the set one. Do not introduce any pouches into the machine. See paragraph Problems and Solutions

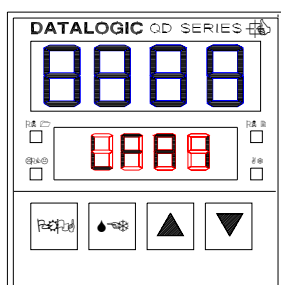
Before starting work again, wait till the current temperature on the bars will stabilize at the new set value.

7.3.3 Thermoregulator alarms

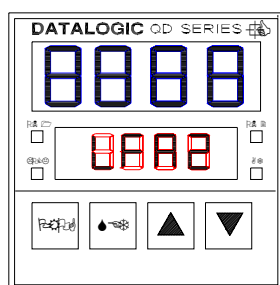
The thermoregulator fit in the MINIRO' H is equipped with autotesting, which shows, according to the situation, the following functioning troubles:



FAIL :General failure: the thermoregulator has to be replaced



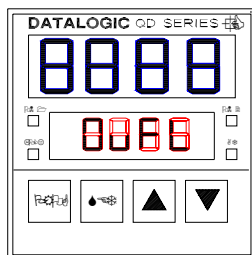
LFA1 : Detection of faults in the temperature regulation loop:
the thermoregulator has to be replaced



LFA2 : Detection of faults in the regulation loop:

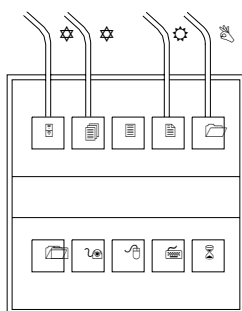
Possible situations:

- lack in the loop of temperature adjustment: replace the thermoregulator
- wrong program configuration: switch off and switch on again the machine to reset the last configuration
- break down of one or both sealing wires: replace the sealing wires
- short-circuit of the thermocouple or reversed polarity



OUFL :Message of bad functioning of the thermocouple :

- cable broken down: replace the thermocouple
- damaged thermocouple: replace the thermocouple
- links (n°1 and 2 fig. 6) disconnected from the thermoregulator and/or the board (n° 19 fig. 8):reconnect them as showed in the electrical diagram



rear thermoregulator view

fig. 6

B = thermocouple cable BLU

R = thermocouple cable RED

Y = cable alarm exit YELLOW



At the first installation, check the connections of the links (n°4 and 5 fig. 6) for the visualization on the display of the bad functioning alarms.

7.3.4 Thermoregulator setup

The thermoregulator fit in the MINIRO' H is set up in order to do, at the switch on of the machine, the following auto-processing:


- a) Autotest : auto-check of the thermoregulator functioning and the exits of the connected devices
- b) Autotuning : auto-calibration of the temperature control parameters (P.I.D.) .
 During the autotuning the thermoregulator calibrate its own functioning according to the electrical specifications of the resistors installed on the machine.

In case of replacement of the original resistors with other ones of the same kind, the thermoregulator will automatically do a new calibration of the parameters P.I.D.



Setup thermoregulator key



The key  is enabled Not to press it to avoid damages on the original setup. When this key is enabled the led LOCK is switch on (see pict.4)



Key to confirm the modification of a data (only for the setup)

7.4 Sealing parametres adjustments

These adjustments have to be made according to the thickness, the kind and the conditions of the material to be sealed.

7.4.1 Sealing temperature adjustment

You adjust the temperature through the electronic thermoregulator (n° 6 pict. 4) situated on the command panel (see par. 7.3.2)

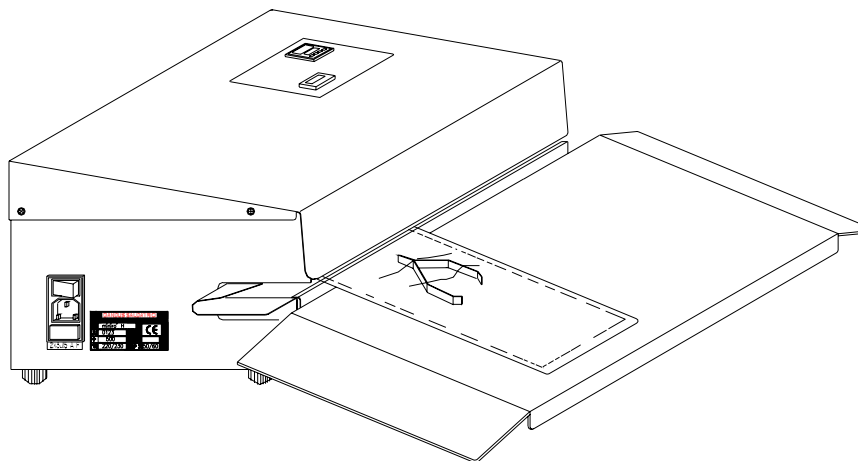
7.4.2 Sealing pressure adjustment

The sealing pressure is preadjusted for all the materials usually sealed.

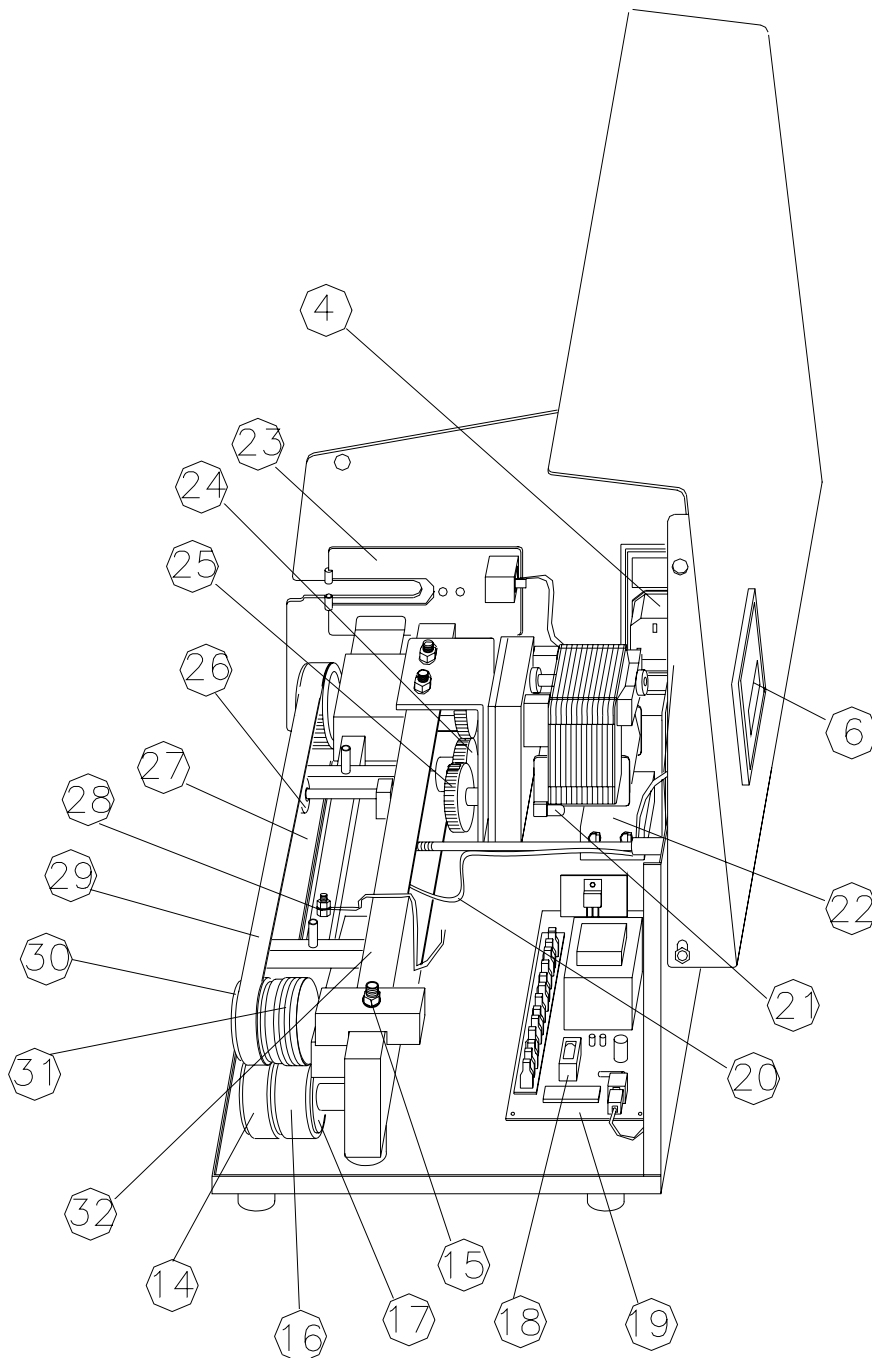
if it could be necessary to encrease or decrease this value for particular needs, adjust it through the adjustment nut (n° 15 pict. 8) situated inside the machine.



The eventually pressure encrease has to be limited, in order not to damage the counterwheel ring (n° 19 pict. 8) and the motor (n° 44 pict. 10)



pict. 7

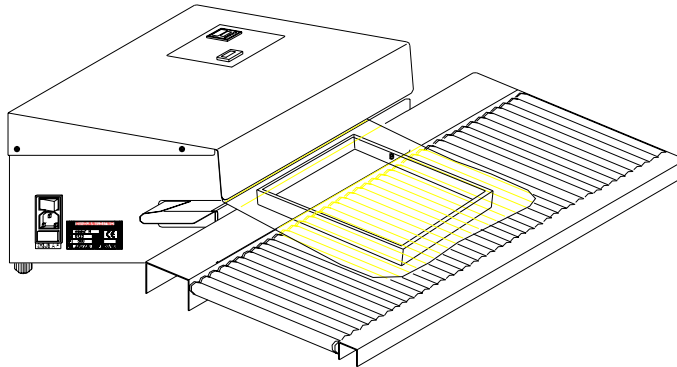


pict. 8

- | | |
|---|--|
| 06 thermoregulator | 23 starting photocell |
| 14 duct pulley lower belt | 24 duct gear |
| 15 sealing pressure adjustment | 25 nut motor gear |
| 16 counterwheel ring | 26 tightening belt upper transport |
| 17 counterwheel pulley | 27 driving belt upper transport |
| 18 main board fuse | 28 block screw and nut upper heating elem. and earth cable |
| 19 main board | 29 timing belt upper transport |
| 20 heating probe cable | 30 duct pulley upper belt |
| 21 power supply connections motor reducer | 31 pressure wheel |
| 22 antijamming filter | 32 tie |

7.5 Sealing operation

1. Check that the set temperature on the thermoregulator (n°06 pict. 4) is consistent with that suggested for the sealing operation by the bag manufacturing house.
Should this value be unknown, look it up in the table here provided with the indicative adjusting values of the heat sealer in relation to the material used.



pict. 9

**NORMALI BUSTE PER STERILIZZAZIONE
NORMAL STERILIZATION BAG**

MATERIALI MATERIALS	BUSTA PIANA FLAT BAG	BUSTA SOFFIETTO ACCORDION BAG
CARTA/POLIPROPILENE - POLIESTERE PAPER/POLYPROPYLENE - POLYESTER	150 ° - 160 ° C	160 ° - 170 ° C
CARTA - CARTA PAPER - PAPER	130 ° - 150 ° C	140 ° - 160 ° C
TYVEK	100 ° - 110° C	

Perfect Seals....Everytime!

The above data are only suitable .Gandus Saldatrici S.rl. takes no responsibility for the use of the given data.

In case of special bags made with different materials not present in our list, or in the event of difficulty in finding the temperature which allow a perfect seal, costumers should send a sample of bags to **GANDUS Saldatrici S.r.l.** who will perform the necessary tests and calculate the appropriate regulation data.



After the swith on of the led ON2 (n°09 pict. 4), we suggest you to wait for any minutes before to start the sealing of the bags; that is important to allow the stabilization of the setting temperature.

Carry out some sealing tests to ensure that the settings chosen are satisfactory for your purposes.

In order to obtain consistent high quality sealing the following guidelines may help you:

1. During the sealing cycle the bag must not be subject to tractions or moves.
2. Make sure the part of the bag to be sealed is clean and dry.
3. Place the item to be sealed on the fixed conveyor and during that operation remove excess air from the bag before initiating the sealing cycle.
4. Spread out and keep spread out the mouth of the bag until it is completely introduced in the sealing area; this permits you to avoid creases and folds.
5. Do not stop the machine during the sealing process except in emergency.
6. If the bag introduced in the Minirò H heat sealer has small or medium size with contents which is neither heavy or bulky, can be left to be conveyed directly by the sealer over the support surface PS 65 in front of the machine (see pict. n°7).

For larger and heavier bags the entrainment will be simplified with the use of the slip rolls RL80. We suggest you to drive the bag to the end of the machine during the sealing process (see pict. n°9).



In order to get perfect seals and make the work easier, DIN 58953 specifications prescribe that the bags are filled not over 3/4 of their length, leaving at least 30 mm between the packed product and the internal sealing edge.

7.6 Turning off the machine under normal conditions

Perfect Seals....Everytime!

To avoid useless consumption, the heat sealer motor stops automatically if new bags aren't introduced during the last 10 seconds.

If new bag sealing is not carried out over quite a long period it's advisable to switch the luminous motor switch (n°04 pict.1) in "O" position (OFF).

The heat sealer will be switched off and cooled to the environmental temperature.

To restart the machine, switch the main luminous switch (n°04 pict. 1) in "I" position (ON) and introduce the bag to be sealed.

7.7 Turning the machine off in an emergency.

If you switch the main luminous switch (n°04 pict. 1) all the moving parts and the power supply to the heat sealer will immediately stop.

In order to restart the machine switch the main luminous switch again (n°04 pict. 1) on "I" position (ON).

7.8 Pouches jam



Avoid tearing the pouches outside the machine to free them.

To take out quickly the jammed pouches, do the following operations:

- switch off the machine through the main switch (n° 4 pict. 1) and disconnect the power supply cable (n° 3 pict. 1)
- open the cover loosening the fixing screws (n° 00 pict. 1) and turn it in vertical position
- loose the two fixing screws (n°35 pict.11) of the gearmotor support
- push the gearmotor (n°50 pict 11) to the right
- holding among the fingers the upper belt (n° 29 pict. 8) , act a constant traction on it, **without fits**, to move the upper belt (n° 29 pict. 8) to the right, so that the jammed pouch goes back towards the infeed zone of the machine

Precision Heatseal Equipment

PHONE: 610-746-2765
FAX: 610-746-2754

Perfect Seals....Everytime!

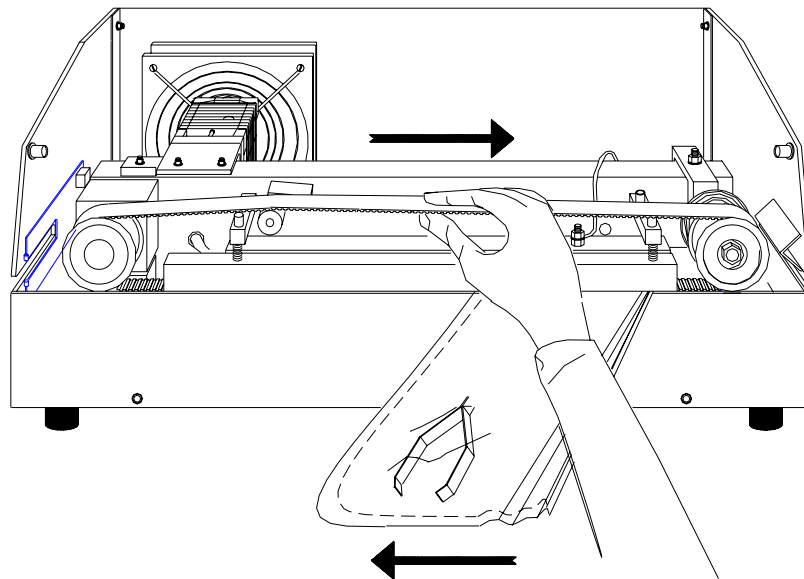
- after taking out the pouch, check that any residue is on the sealing zone and on the pressure wheel (n° 31 pict. 8)
- replace the gearmotor support (n° 50 pict 11) close to the gearing stop (n°58 pict.11) and tighten the two screws (n° 35 pict.11)



Be careful for the high temperature of this zone of the machine



Do not drag the upper belt by fits and starts, in order not to damage the gearmotor



MAINTENANCE



WARNING

Perfect Seals....Everytime!

THE HEAT-SEALER'S MAINTENANCE MUST BE DONE BY QUALIFIED PERSONNEL ONLY, PROPERLY TRAINED AND THEY MUST HAVE A GOOD KNOWLEDGE OF INSTRUCTIONS CONTENTS IN THIS MANUAL.

BEFORE ANY INTERVENTION, STOP THE HEAT-SEALER MACHINE AND UNPLUG IT FROM THE MAIN SUPPLY.

1. In the event of a malfunction in the temperature control system, protective thermostat (n° 43 pict. 11) will automatically operate, shutting down the sealer and cutting off heating at a temperature only slightly higher than the maximum operating temperature which can be set.

This prevents all risks of the sealer's overheating and stopping it

If, after protective thermostat (n°43 pict.11) has shut down the sealer, the power is not switched off by operating the main luminous switch (n° 04 pict. 1), the sealer will come on again when the temperature has fallen below the thermostat operating value.

In any case, switch off the sealer and contact the manufacturer.

2. Do not lubricate any part of the sealer
3. Check periodically, that pressure wheel (n°31 pict. 8) is clean; if not, clean with a soft cloth, if necessary with the aid of a plastic or wooden rod.
4. Periodically check that there is any residue on the sealing path.



Do not use metal objects, which would irreparably damage the pressure wheel.

8.1 Transport belt replacement (n°40 and 29 pict. 11).

For an easy intervention, inside the machine, unscrewing the two fixing screws (n° 00 pict. 1), and turning over in vertical position the cover of the machine.

1. Unscrew the two screws (n° 35 pict. 11) and move the motor on the right to free the transmission.
2. Fully release the sealing pressure turning the regulation nut (n°15 pict. 8) counterclockwise and remove the pressure charge screw support (n° 33 pict. 10). Pay attention not to loose the spring (n° 34 pict. 10).
3. loosen the belt tightening rolls (n°26 and 41 pict. 11).
4. After unscrewing and removing the driving belt upper transport (n°27 fig. 11), after unscrewing and remove the driving plugs (n°36 pict. 11) and the respective pressure spring (n°46 pict.11)
5. The transport belt can be detached from its drive pulleys by moving the belt, manually, and exerting a slight outwards pressure on it at the same time.
6. Fit a new belt, following the above instructions in the reverse order

Perfect Seals....Everytime!



To restore the original gearmotor position make sure the gearmotor support (n°50 pict 11) will set close to the gearing stop (n° 58 pict.11); in this way you can get the correct gearing between the gearmotor (n° 25 pict 8) and the driven gear (n°24 pict. 8)



Don't loose the lock screw of the gearing stop (n° 58 pict 11)



LOCK THE ADJUSTMENT NUT (n°15 pict. 8) TO RESET THE ORIGINAL PRESSURE VALUE BE SURE THAT THE SPRING (n° 34 pict. 10) IS IN ITS RIGHT PLACE AND FREE RUNS.

8.2 Heating elements replacement (n°52 and 53 pict. 12)

For an easy intervention, inside the machine, unscrew the two fixing screws (n° 00 pict 1), and turn over in vertical position the cover of the machine.

1. After unscrewing and removing the guide pins (n°36 pict.11) and the respective springs (n°46 pict.11) remove the driving belt upper transport (n°27 pict.11).
2. Disconnect the main power supply cable of the heaters from the terminal board of the electronic card (n°19 pict. 8).
Check with a volt-ohm-milliameter which of the two heaters is broken. This operation is necessary because the two heaters (n°52 and 53 pict.12) are connected in series, if one is broken the other doesn't heat.
3. After unscrewing and removing the respective guide pins (n° 48 pict. 12) remove the upper sealing bar (n° 49 pict. 12).
4. Now check the cleaning and worn conditions of the sealing bars (n°49 and 51 pict.12) and the respective anti-adhesive Teflon covering.
If necessary clean the sealing bars with a soft cloth so it won't be damaged.
5. If the upper heater has broken (n°52 pict. 12) take it off from its location after loosening the blocking grain (n°28 pict.11).
6. To replace the heater in the lower bar, take off the protective door so the lower conveyor bar (n°44 pict 11) and the near sealing bar will be visible (n°51 pict. 12)
7. Unscrew and remove the lower nuts (n°39 pict. 11) that block the driving belt lower transport and take it off from its location.
8. Unscrew the fixing nut of the earth wire (n°57 pict. 14)
9. Unscrew the nut (n°57 pict 14) of the lower heater blocking screw 's (n°45 pict.14)
10. Take out the cable of the heating probe (n°56 pict. 13) from the screw (n°45 pict. 14) and unscrew the nut (n°55 pict. 14).
11. Unscrew the lower heater blocking screw (n°45 pict. 14)
12. Remove the heating probe (n°56 pict. 13) from its casing (n°54 pict. 13).
13. Remove the sealing bar (n°51 pict. 12) from its place and take out the heater (n°52 pict. 12) inside.
14. Remount the bars following the reverse procedure.

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When you screw the lower heater bar fixing screw (n°45 pict. 14), do not screw too much, in order not to damage the heater.



Remember to reconnect the earth cable of the heaters fixed with the nuts (n°28 pict. 11 and n°57 pict. 14).



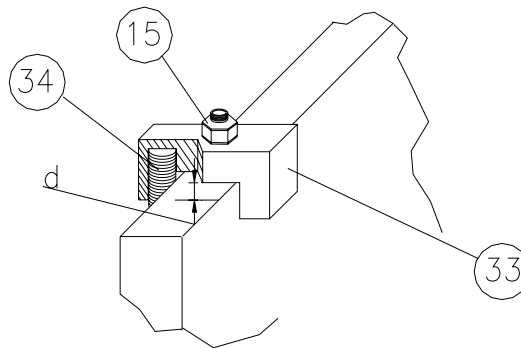
Make sure that the position of the upper nuts never change (n°38 pict. 11) in order not to compromise the perfect alignment of the sealing bars and of the lower conveyor bar.

8.3 Reset of the correct pressure value

In case of any modification of the original sealing pressure value through the adjustment nut (n° 15 pict. 10) reach again the distance "d" value of mm. 3,3, as shown in the picture 10.

To reach easily the value of mm. 3,3 use a thickness gage.

Check that the spring (n° 34 pict. 10) can free flow in its seat in the pressure charge bloc (n° 33 pict. 10).



pict. 10

9 Spare parts order

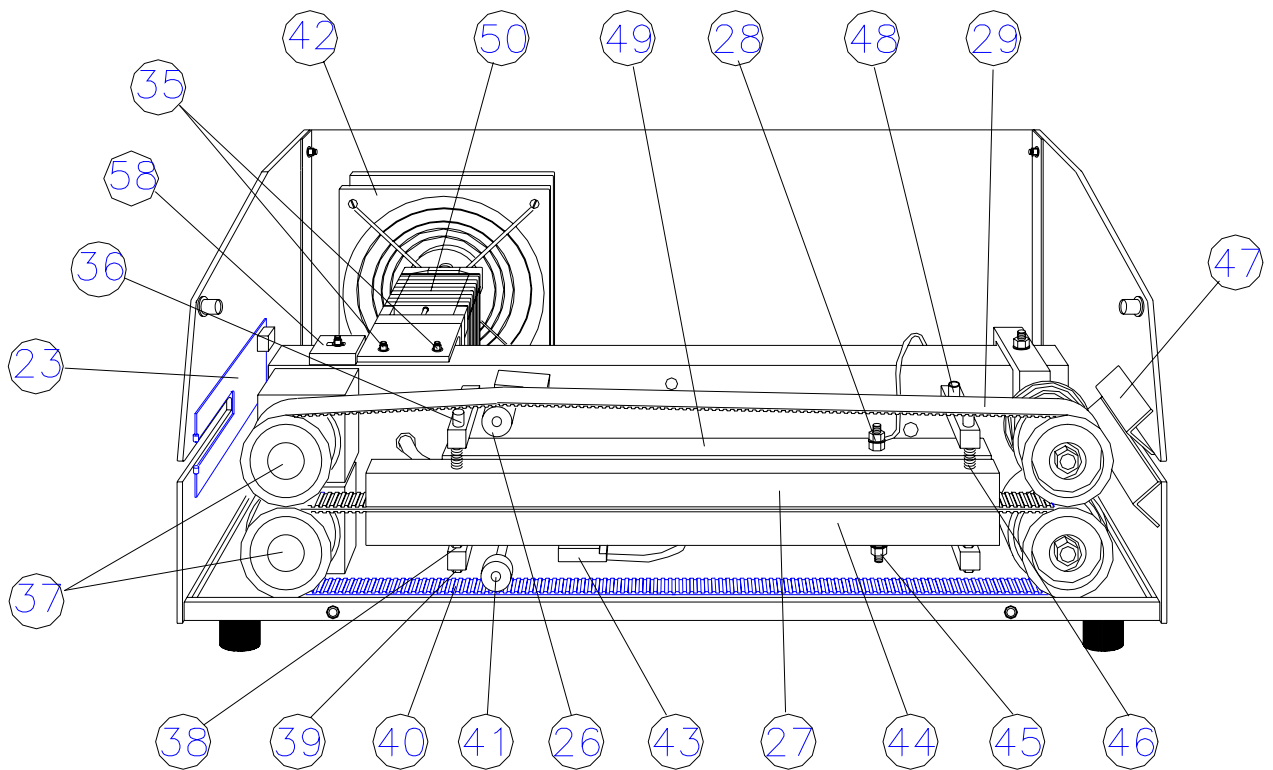
Always mention:

1. Serial number of the heat-sealing machine.
2. Number of the parts to be ordered.
3. Number of the table where the parts are shown.

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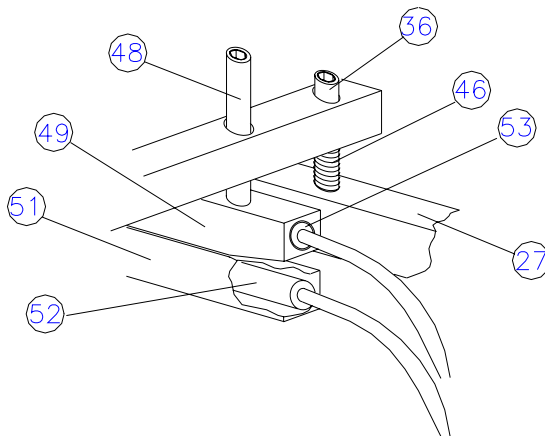
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pict. 11

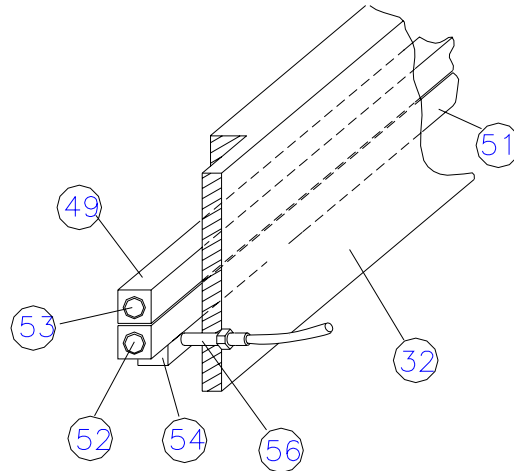
- 23 starting photocell
- 26 tightening belt upper transport
- 27 driving belt upper transport
- 28 fixing screw and nut upper resistance and eath cable
- 29 timing belt upper transport
- 35 fixing screw motor reducer
- 36 driving belt upper transport plug
- 37 drive pulley
- 38 driving belt lower transport adjustment nut
- 39 driving belt upper transport adjustment nut
- 40 timing belt lower transport
- 41 tightening belt lower transport
- 42 fan
- 43 heating thermostat
- 44 driving belt lower transport
- 45 lower resistance fixing screw
- 46 pressure spring driving belt upper transport
- 47 exit guide
- 48 drive plug upper sealing bar
- 49 upper sealing bar
- 50 motor reducer 50W
- 58 gearing stop



pict. 12

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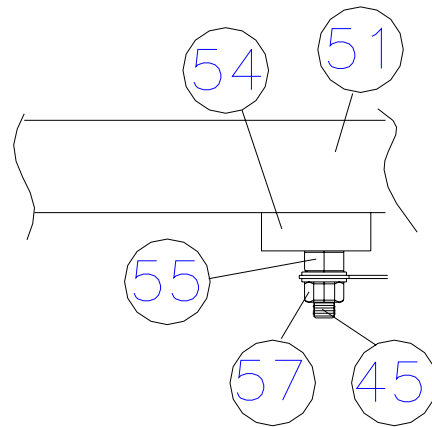
- 27 driving belt upper transport
- 32 tie
- 36 driving belt plug upper transport
- 46 pressure spring driving belt upper transport
- 48 plug guide upper sealing bar
- 49 upper sealing bar



pict. 13

- 51 lower sealing bar
- 52 lower heater
- 53 upper heater
- 54 heat probe casing
- 56 heat probe

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pict. 14

- 45 lower heater fixing screw
- 51 lower sealing bar
- 54 heat probe casing
- 55 nut fixing screw n° 45
- 57 earth cable lower heater nut

10 PROBLEMS AND SOLUTIONS

In this section some problems which may occur while operating the machine are outlined together with some suggested remedies.

If, despite the suggestions below, you are unable to resolve the trouble, contact your sales agent or us directly.

10.1 Electrical supply

The heat-sealer doesn't work and the main luminous switch (n°04 pict. 1) does not light up.

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- *Check that the main supply cable (n°03 pict. 1) is correctly connected to the main supply. Check that the power is on by connecting another electrical device to the socket and if necessary check that the magnetothermic switch mounted on the circuit is on.*
- *After disconnecting the machine from the power supply check the machine's fuses (n°02 fig. 1).*

The heat-sealer doesn't introduce bags but the main luminous switch (n°4 pict. 1) is on and the thermoregulator display (n°5 pict. 4) is working

- *After disconnecting the machine check the integrity of the fuse (n°18 pict. 8) set on the electronic main card (n°19 pict. 8)*
- *Check if the thermoregulator connectors (n° 1 and 2 pict. 6) are correctly plugged in their seats.*

10.2 Heat-sealing process

If you have correctly applied the instructions for use (see par. 7) but the temperature of the sealing bars does not increase to reach the set value and consequently the heat sealer does not start:

- *Using the suitable instrument, test that the two resistances (n°52 and 53 pict. 12) located on the sealing bars (n°49 and 51 pict. 12) are intact. If one is broken, replace it following the Maintenance instructions.*

The machine starts the sealing cycle when you introduce a bag, but the sealing temperature has not been reached:

- *The thermoregulator is bad functioning: in this case the red led on the main card (n°19 pict. 8) does not light. Contact yr supplier*
- *The static relay (fit in the main board) of the elements heating is out of work. Contact your supplier.*

The seal is imperfect, crumpled or overstretched or the seal thickness is uneven:

- *Check by successive tests the settings chosen for the sealing process. Make sure the sealing temperature is not too high for the material used.*
- *Following the instructions we suggest you for the Maintenance, check if the sealing tunnel is free and clean. At once check if the bag, which may be too heavy or big, has been blocked.*

The seal, although appearing even, is not sufficient to seal the bag.

- *Check that the internal and external edges of the bag are clean and dry before the sealing operation begins.*
- *Check by successive tests the settings chosen for the sealing process. Check the temperature chosen is not too low for the material used.*
- *Check that the counter ring (n° 16 pict. 8) is not so worn: in this case on the counter ring there are big grooving on its surface. Replace it.*

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10.3 Piece - counter

The display of the piece-counter (n°13 pict. 4) remains switched off and does not count the bags introduced into the sealer.

- *Replace the batteries which can be reached through the door put on the back of the piece-counter*

10.4 Thermoregulator

During the normal working the led ON2 (n°9 pict.4) switches off because the temperature read by the thermoregulator is more/less than the set one and the sealing machine stops.

- *check if unintentionally the set temperature value was set down by the set temp. buttons (n°10 pict.4): restore the correct set temperature value using the set temp. buttons (n° 10 pict. 4)*
- *the thermoregulator (n°5 pict. 4) could be wrong adjusted or damaged. Contact your supplier.*

During the normal working the red led (n°7 pict.4) lights up because it is taking a lower temperature than the set one and the sealing machine stops.

- *check if unintentionally the set temperature value was set up by the set temp. buttons (n°8 pict.4) : restore the correct set temperature value using the set temp. buttons (n° 8 pict. 4)*
- *the thermoregulator (n°6 pict. 4) could be out of order. Contact your supplier.*

The thermoregulator display alarm signals:
see par. 7.3.3



in case the machine stops, because of current temperature more or less than the set value, the eventual pouches passing through the welding zone, are stopped there, suffering overheating that can damage the anti-adhesive teflon covering of the sealing bars.

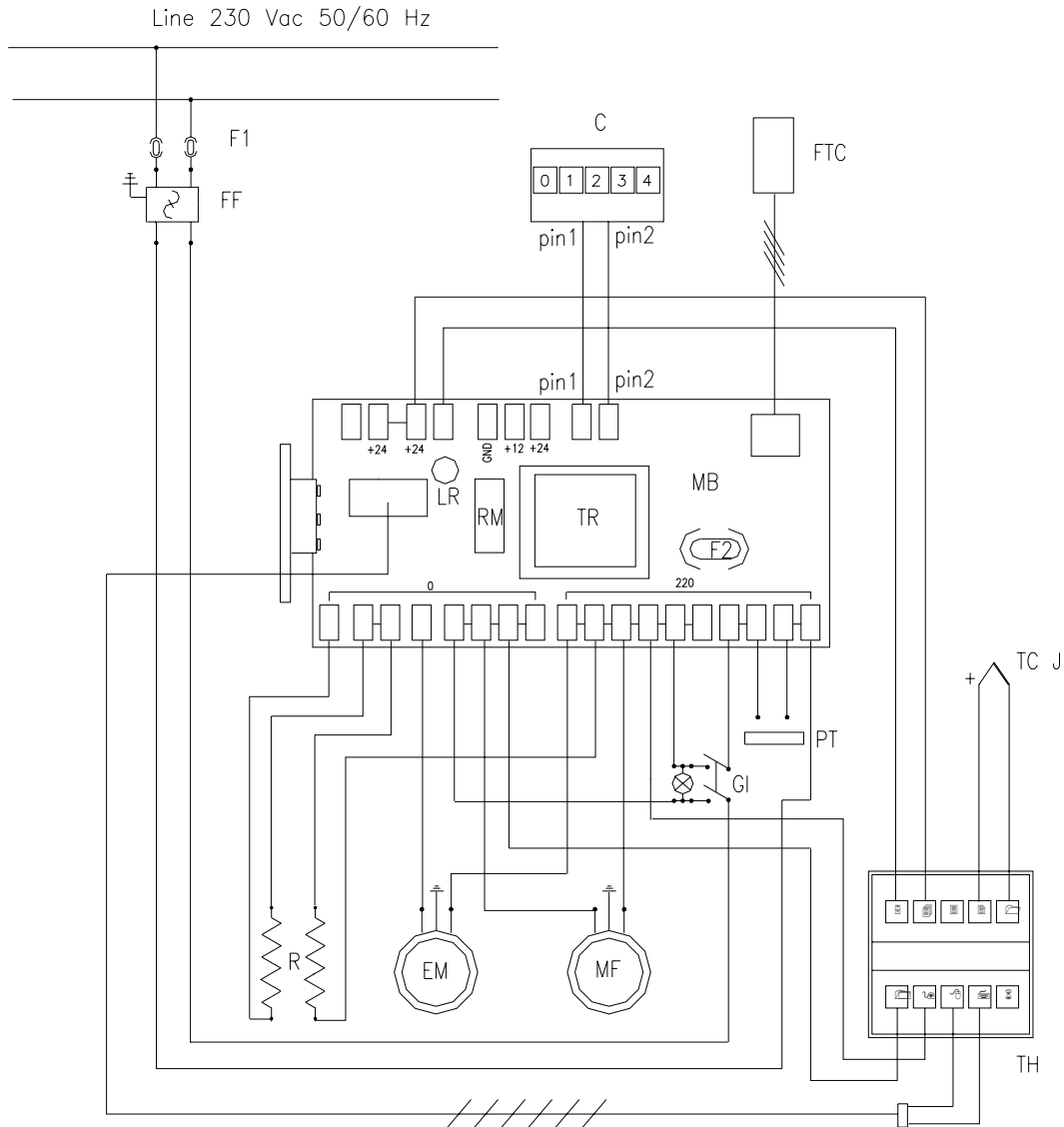
Therefore proceed with the pouches extraction as indicated at paragraph n° 7.8.



Be careful for the high temperature of this zone of the machine

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11 ELECTRIC DIAGRAM MINIRO' H



COMPONENTS LIST

F1	3.15 A biphase fuse
FF	EMC antijamming filter
C	counter-bags
FTC	starting photocell
MB	electronic main card
TR	electronic main card transformer
F2	electronic main card transformer fuse

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PT	protective thermostat 230°C
GI	luminous main switch
R	resistance 110 VAC 200W
EM	electric motor
MF	electric fan motor
TH	temperature thermoregulator
TCJ	thermocouple J
LR	static relay functioning led

12 TO DISCARD THE MACHINE

The main structure of the continuous heat-sealer MINIRO' H doesn't include particularly polluting elements so the machine can be eliminated by normal discarding.

13 WARRANTY TERMS

The GANDUS' heat-sealer are built to perform and they are guaranteed for 12 months after delivery.

For the duration of the warranty, the manufacturer will replace parts or elements that, under his examination, should result defective for factory construction, error or faulty materials, but not the parts presenting normal wear, demonstrating incorrect use of the equipments or tampering.

Are excluded from this warranty the materials subject to normal wear, such as protective cloths, belts, straps rubber, resistors, ect.

This warranty is accepted in our offices, for equipment delivered to us free of charges, that shall be returned on ex-factory basis.

This warranty is void if the heat-sealer has been altered or has been fitted with unauthorized spare parts.

The warranty is also void if the customer does not comply with the form of payment established even once.

For the parts not manufactured by GANDUS, the warranty is conditioned by the one provided by the supplier.

For the duration of the warranty too, if the heat-sealer is subject to any intervention by our personnel outside our seat, the manufacturer will charge workhour and transportation fee.