



GIMA

D 351

IMPULSE HEAT-SEALER



WARNING

BEFORE USING THE MACHINE, READ CAREFULLY THIS MANUAL FOR A CORRECT USE IN ACCORDANCE WITH THE SAFE RULES.

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CE DECLARATION OF CONFORMITY	

SYMBOLS:



warning meaning danger



warning meaning particular suggestion



warning meaning suggested maintenance

I. SAFETY RULES

In this manual we give you all the instructions for a correct use of the machine and for its maintenance.

- This is the reason why the operator must be properly trained and have full knowledge of the contents of this manual.
- If the operator can not read it, the responsible has to do the necessary, also the translation into the known language.
- The machine can be used only for the employ for which has been created.
- The machine has to be used by properly trained operators.
- The heat-sealer must be used only indoor and in a dampness free environment.
- Before opening the machine, unplug it from the main power supply.
- Never introduce in the sealing area anything except the bag to be sealed.
- Do not introduce in any opening of the heat-sealer machine metallic objects, to avoid electrical shocks.
- To guarantee a constant and regular functioning of the machine, it is important to keep clean the machine.
- Do not clean the heat-sealer with fluid or spray cleaners. Clean only by a slightly moist cloth.
- Use only original spare parts.
- It is advisable to have the heat-sealing machine checked by a qualified technician every year.
- In case of repair or checking, we can modify the machine to improve its functioning and development.

GIMA s.p.a. is not responsible for direct and indirect damages derived from an incorrect use of the heat-sealer.

II. EXPECTED USE

The GIMA D 351 is an electrical impulse sealing machine for closing sterilization bags as per DIN 58953 P. 7 rules.

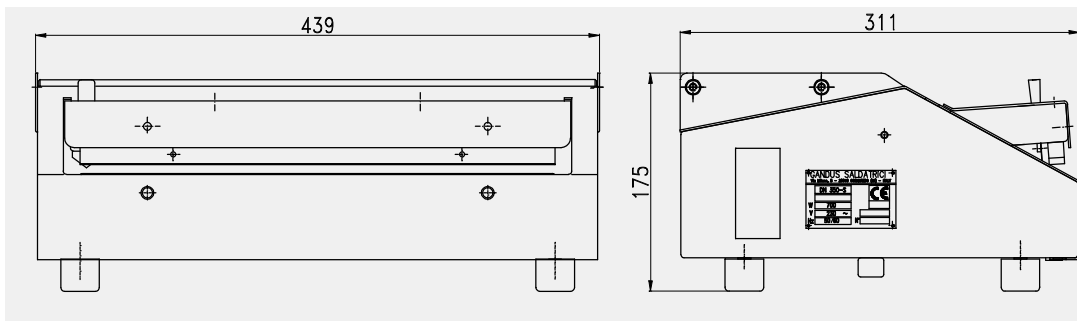


IT HAS NOT TO BE USED FOR ANY DIFFERENT EMPLOY

Impulse sealer GIMA D 351

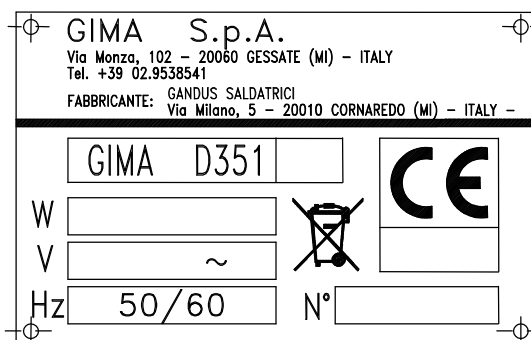
III. CHARACTERISTICS

- Sealable materials: paper/polypropilene/polyesther-tyvek/polyesther-polyethylene
- sealing rules DIN 58953 P. 7 rules
- Sealing length: mm. 350
- sealing width: mm. 8
- Electronic control of the sealing time from 0÷5 sec.
- Incorporated cutting device.
- Power supply: 230V - 50/60 Hz mono-phase
- Max. absorption 900 W only during the sealing.
- Dimensions:
 - width mm. 439
 - height mm. 175
 - dept mm. 311
- Weight: Kg. 18
- CONSTRUCTION AS PER CEI EN 60204-1 RULES

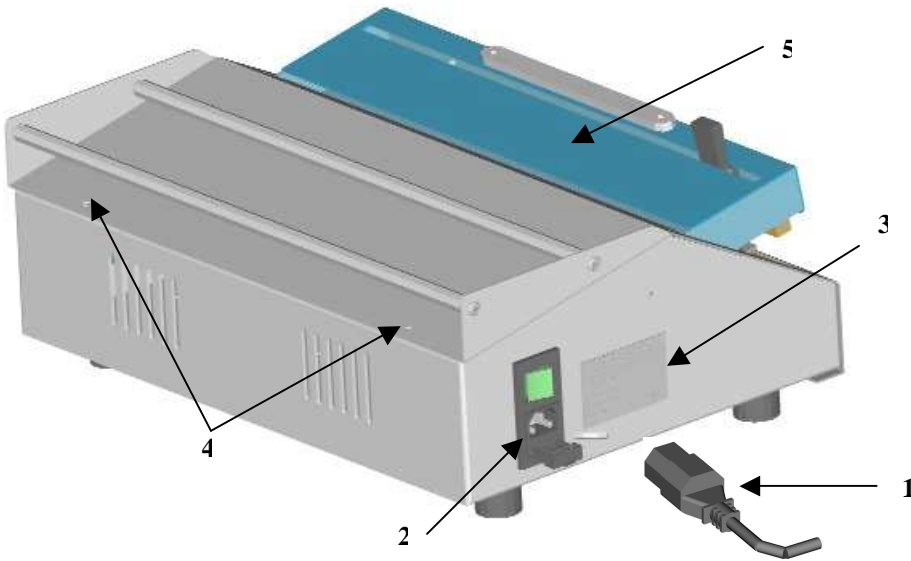


IV. INSTALLATION

- Use the machine only indoor, in dampness and moistness free environment.
- Set it on an enough solid table
- Only after checking that the luminous switch (n. 2 pict 2) is in “O” position, link the machine, through the cable (n° 1 pict. 1), into a earthed power source with the same voltage marked on the target as the one below.



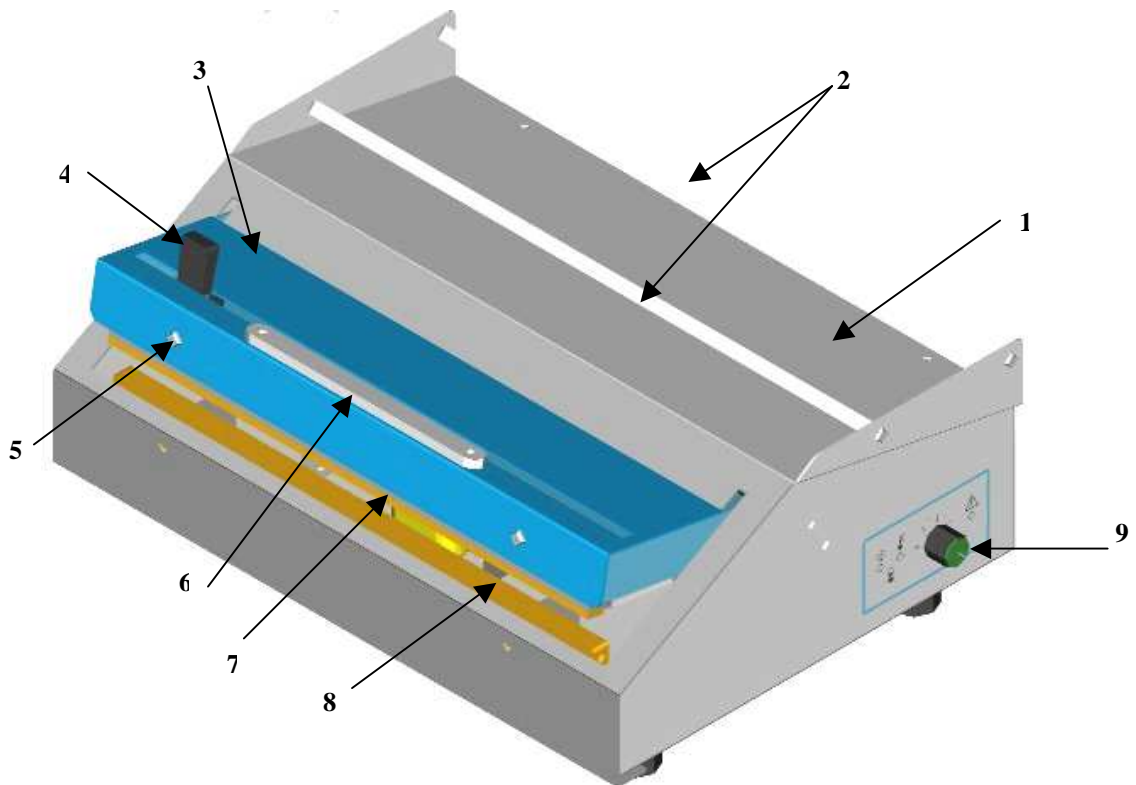
V. LIST OF THE EXTERNAL PARTS



pict. 1

1 : power supply cable
2 : main switch

3 : identification data plate
4 : rear cover fixing screws
5 : pivoted plain

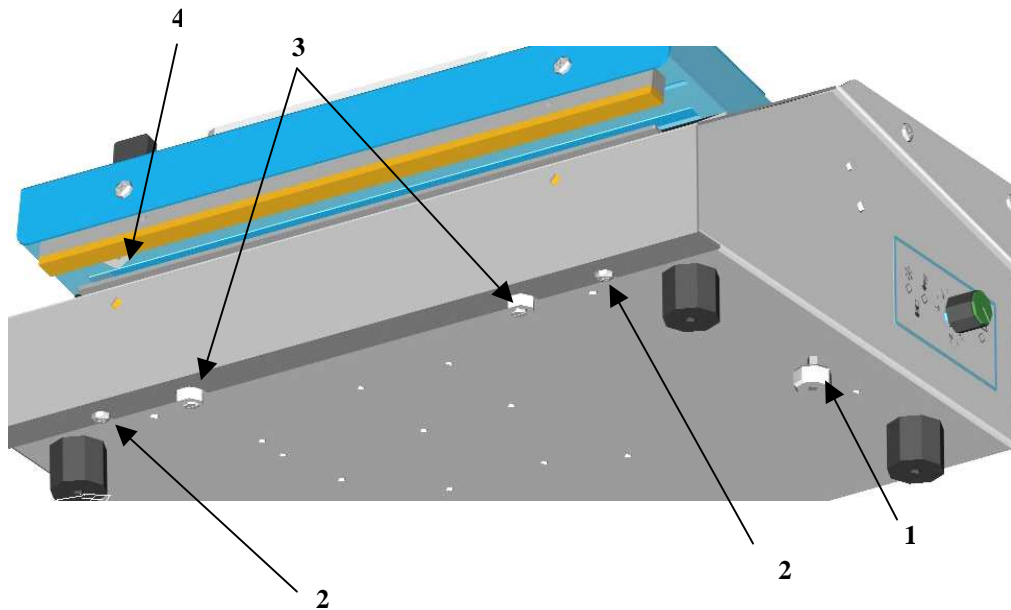


pict 2

1 cover
2 spool rolls
3 pivoted plain cover
4 cutter knob
5 pivoted plain cover fixing screws

6 pivoted plain knob
7 upper mobile bar
8 lower sealing bar
9 command panel knob

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pict. 3

1 : adjustment opening bars ball grip
2 : lower fixing cover screws

3 : lower bar adjustment screw locknuts
4 : cutter blade

VI. INSTRUCTIONS FOR USE



THE OPERATOR HAS TO BE TRAINED AND KNOW THE CONTENTS OF THIS MANUAL

CLOSING OF PREFORMED BAGS AFTER FILLING

- Put the luminous switch (n. 2 pict. 1) in “I” position. This one will switch on and the heat sealer will be ready for the use.
- Adjust the sealing time, through the potentiometer (n. 9 pict 2), setting the right value according to the bags to seal (see SUGGESTED SEALING TIME).
- Introduce the mouth of the bag between the bars to let a free edge, quite mm. 20, over the seal.
- Through the pivoted plain knob (n° 6 pict. 2), exercise a little pressure on the moving bar (n° 7 pict. 2), the bar will close for the set sealing time and the sealing led (n° 2 pict. 4) will switch on ,showing the sealing phase.
- As the sealing led (n ° 6 pict. 4) switch off, the cooling led (n°1 pict. 4) automatically will switch on and the bars will kept in pressure the time necessary to obtain a perfect seal.
- As this cooling led switch off, the bars will automatically open to allow to the operator to take out the bag sealed.

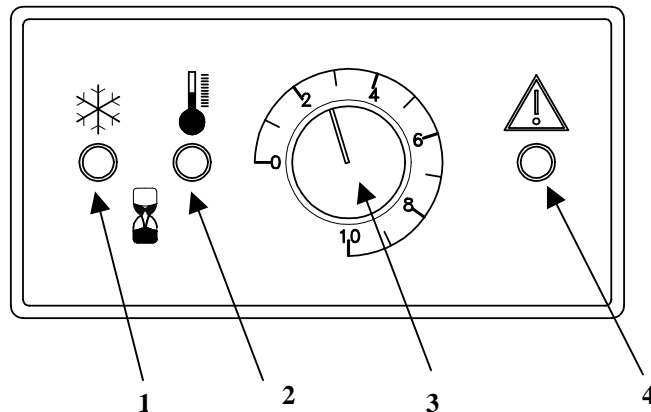


THE SEALING TIME HAS TO BE SET ACCORDING TO THE SPECIFICATIONS OF THE BAG TO BE SEALED AND THE DESIRED OUTPUT.

A comparative electronic control limits the heating of the resistance to avoid any overheating in case of fast sealing sequence.



WE SUGGEST YOU TO KEEP AN OUPUT OF 6/7 SEALS PER MINUTE.



pict. 4

1 : led cooling phase
2 : led sealing phase

3 : sealing time adjustment knob
4 : sealing phase alarm led

SUGGESTED SEALING TIME

The DN 350 S is equipped through a electronic matching system that limits the sealing wire heating during its use to avoid high heating storing up in case of rapid sealings sequence. Than the set time about the a) case is suitable only for the first and/or second sealing.

a) first sealing or long sealing intervals

FLAT BAGS: potentiometer knob (n° 3 pict 4) in position 8/10 (*)
BAGS WITH GUSSET: potentiometer knob (n° 3 pict 4) in position 8/10 (*)

b) sealing made in rapid sequence

FLAT BAGS: potentiometer knob (n° 3 pict 4) in position 8/10 (*)
BAGS WITH GUSSET: potentiometer knob (n° 3 pict 4) in position 8/10 (*)

(*) depending by the real supply voltage line



after the automatic re-opening of the sealing jaw, at the end of the cycle , we suggest to wait for 4 or 5 sec. before doing the next seal, in order to get a max max output of 6/7 per minute

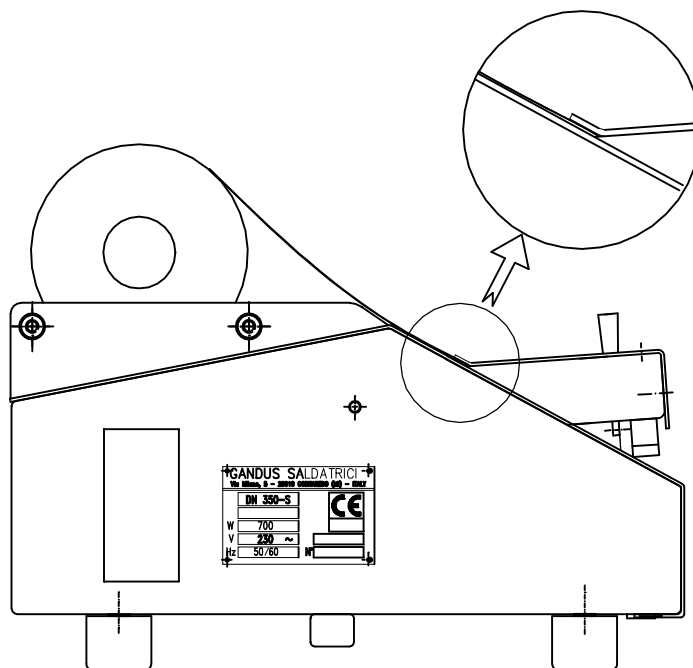
SAFETY ELECTRONIC CONTROL

In case of fault of the heating electronic control, the RED WARNING led (n° 4 pict. 4) will switch on and, in the same time, the power supply of the resistance will be interrupted .

In this case stop the production and get in touch with your Dealer Service Department.

PRODUCTION OF POUCHES FROM THE SPOOL

- The spool can be cut both form right or left and viceversa.
Then take the cutter knob (n°4 pict 2) to one the two edges to allow the spool in-feed.
- Place the spool on the rolls (n° 2 pict. 2) and introduce the spool edge through the slit, as shown in the pict. 5. till it will exit between the sealing bars (n° 7 and 8 pict. 2), to get the desired pouch length you would produce.
- Through the pivoted plain knob (n° 6 pict. 2), start the sealing cycle
- While the bars are closed, during the sealing and the cooling phases, let flow on the side the cutter knob (n° 4 pict. 2) to cut the spool.
- At the end of the cycle, the bars will open and the bag is ready to be filled.
- Repeat the in-feed operation, to prepare the next pouch



pict. 5

VII. MAINTENANCE



IT CAN BE EFFECTUATED ONLY BY TRAINED TECHNICIANS



ALWAYS UNPLUG THE POWER SUPPLY CABLE (n° 1 pict. 1)

1) machine opening procedure :

To access top the inner components it is needed to remove the cover (n° pict. 2) of the machine.
Do as follows :

- a) extract the cutter knob (n° 4 pict. 2) in vertical direction
- b) unscrew the two rear screws (n° 4 pict. 1) and the two lower screws (n° 2 pict. 3)
- c) Remove the cover (n° 3 pict. 2) of the pivoted plain , after to have unscrewed its fixing screws (n° 5 pict. 2)



PAY ATTENTION TO THE CUTTER BLADE (n° 4 pict. 3)

- d) unthread in front , the cover from the machine

2) glass-PTFE protective cloth (n. 24 pict. 7)

The protective cloth could be damaged for normal use , for too long sealing time, or for the casual introduction of any tools between the bars.

For the replacement proceed as follows:

- a) set the pivoted plain (n°3 pict. 6) on the max opening using the adjustment opening bars ball grip (n°1 pict. 3) located underneath the base of the machine, loosen its locknut.
- b) unscrew and remove the two screws (n° 1 pict. 6)
- c) extract the lower sealing bar (n° 8 pict. 2) from the machine
To work more softly , unplug the two power supply cable (n° 30 pict. 7) from the tails of the bar.
- d) replace the old cloth with a new one. The original spare clothes have adhesive bands to facilitate the application



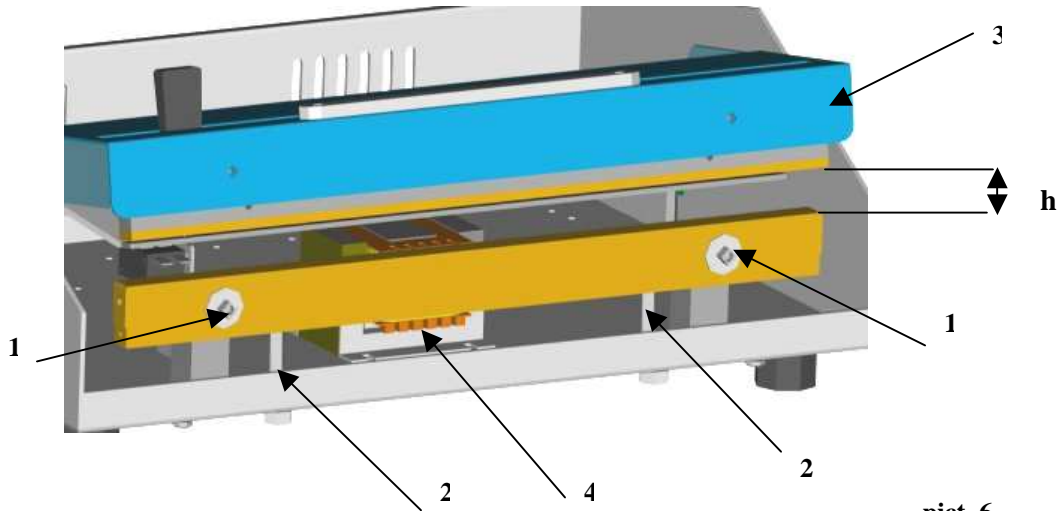
It is very important that the bags do not make any crumples

- e) fit back the sealing bar proceeding on the contrary.
- f) before tighten the two screws (n. 1 pict. 6) , be sure that the bar perfectly leans on its own stands (n° 2 pict. 6)



do not loosen the two adjustment stands (n° 2 pict. 6)

- g) restore the opening of the pivoted plain to its work position : act through the ball grip (n°1 pict. 3) till to get the “h” gap = 8 mm. as shown in the picture n° 6



- 1 : lower sealing bar fixing screws 3 : pivoted plain
 2 : lower sealing bar adjustment stand 4 : electromagnet

3) lower sealing bar resistance replacement

The resistance could be deformed or interrupted because of a casual introduction of chirurgical tools or any other solid objects between the bars.

For the replacement, follow the upper instructions till the point c) removing the protective cloth too. Then :

- unscrew the two screws (n° 28 pict 7)
- remove the damaged resistance keeping care that you do not loose the two sockets (n° 27 pict.7) and the two compensation springs (n° 29 pict. 7)
- check the sub-resistance band (n° 26 pict. 7) and , if damaged, replace it.
- Fit back all proceeding on the contrary.

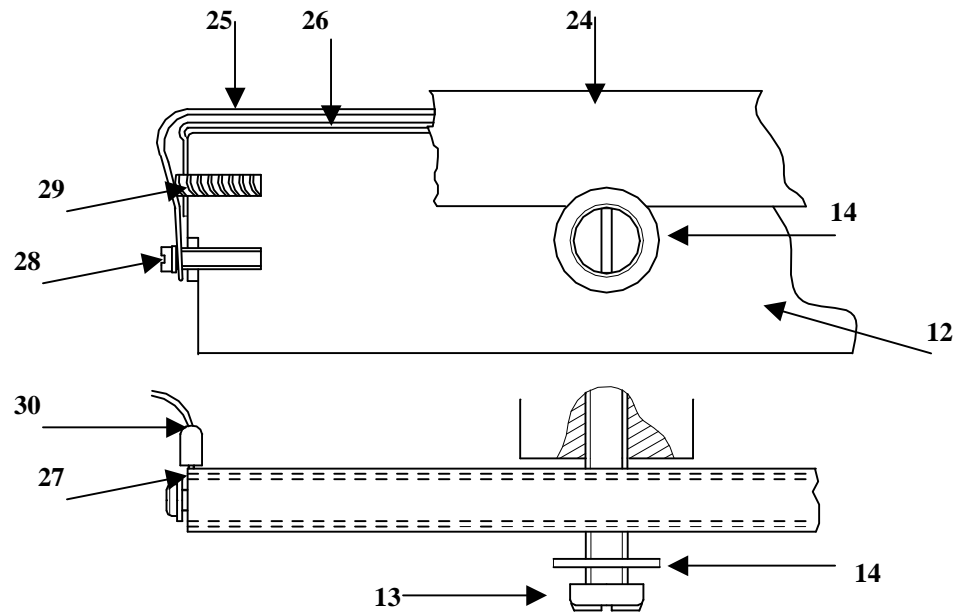


the resistance must be fit well stretched during its fitting through the screws (n° 28 pict 7).



do not act the machine without the sealing wire connect to the timer board, to avoid damage to the probe NTC located on the timer board

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pict. 7

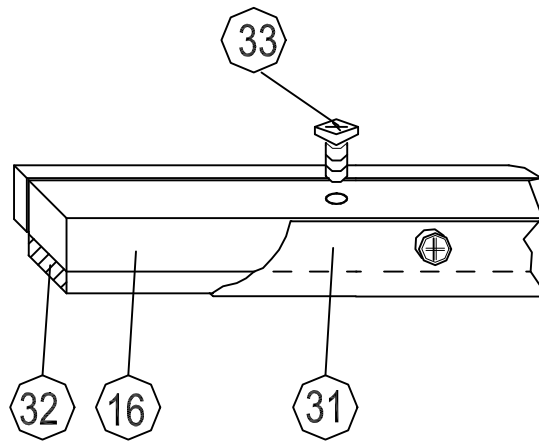
12	sealing bar	26	sub-resistance band
13	sealing bar fixing screw	27	socket
14	glass-PTFE fixing washer	28	resistance fixing screw
24	glass-PTFE protective cloth	29	compensation spring
25	resistance	30	resistance supply cable

4) upper mobile bar protections replacement

The protective cloth (n° 31 fig. 8) and the pressure rubber (n° 32 fig. 8) of the upper mobile bar (n° 16 pict. 8 or n° 7 pict. 2) could consume or damage.

For the replacement proceed as follows:

- a) extract the cutter knob (n° 4 pict. 2) in vertical direction
- b) remove the pivoted plain cover (n° 3 pict. 2) after unscrewing the two screws (n° 5 pict. 2)
- c) remove the upper mobile bar (n° 16 pict. 8) after unscrewing the two fixing screws (n° 20 pict. 10) Check the protective cloth and pressure rubber conditions and , if necessary, replace them
- d) during the fit back, check that the upper mobile bar will be aligned and parallel with the lower sealing bar , before to tighten its screws.(n° 20 pict. 10)



pict. 8

16	upper mobile bar	32	pression rubber
31	glass-PTFE protective cloth	33	bar fixing screw

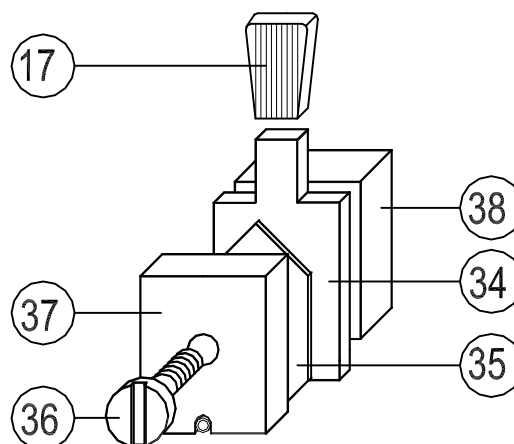
5) cutter blade replacement :

The cutter group blade has a time-life . For the replacement proceed as follows :



TAKE MUCH CARE NOT TO HURT YOURSELVES WITH THE KNIFE

- extract the cutter knob (n° 4 pict. 2) in vertical direction
- remove the pivoted plain cover (n° 3 pict. 2) after unscrewing the two screws (n° 5 pict. 2)
- Move the cursor (n. 34 pict 9) totally on the left and remove it from its place on the top (see pict. 10)
- Remove the knife (n. 35 pict 9), loosing the fixing screws (n. 36 pict 9).
- the blade has four sharps : check if one of them is working too. On the contrary replace the blade.
- fit back on the contrary



pict. 9

17	knob	36	blade fixing screw
34	cursor	37	plate
35	blade	38	guide support

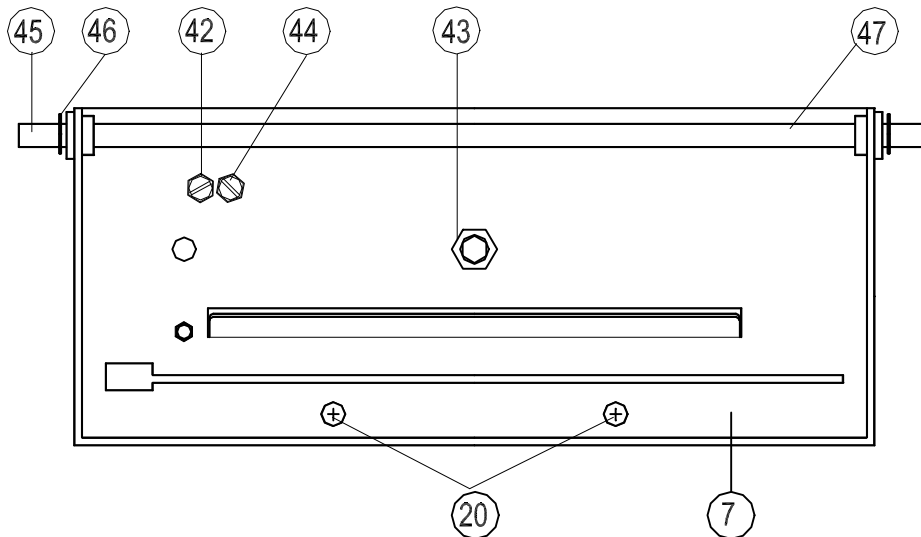
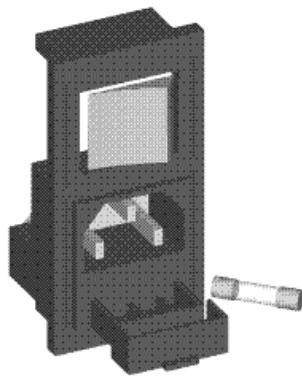
6) line fuses replacement



UNPLUG THE POWER SUPPLY CABLE (n°1 pict.1)

The 4 A protection line fuses could be interrupted , if the green light of the main switch (n° 2 pict. 1) does not light and the machine does not work.

- Set the main switch (n° 2 pict. 1) in position OFF ("0").
- extract the fuses from the fuse box (see below) and replace them with other of the same kind and with the same value.



pict. 10

7 pivoted plain

20 upper mobile bar fixing screw

42 electromagnet starting micro switch adjustment screw

43 electromagnet pressure adjustment screw

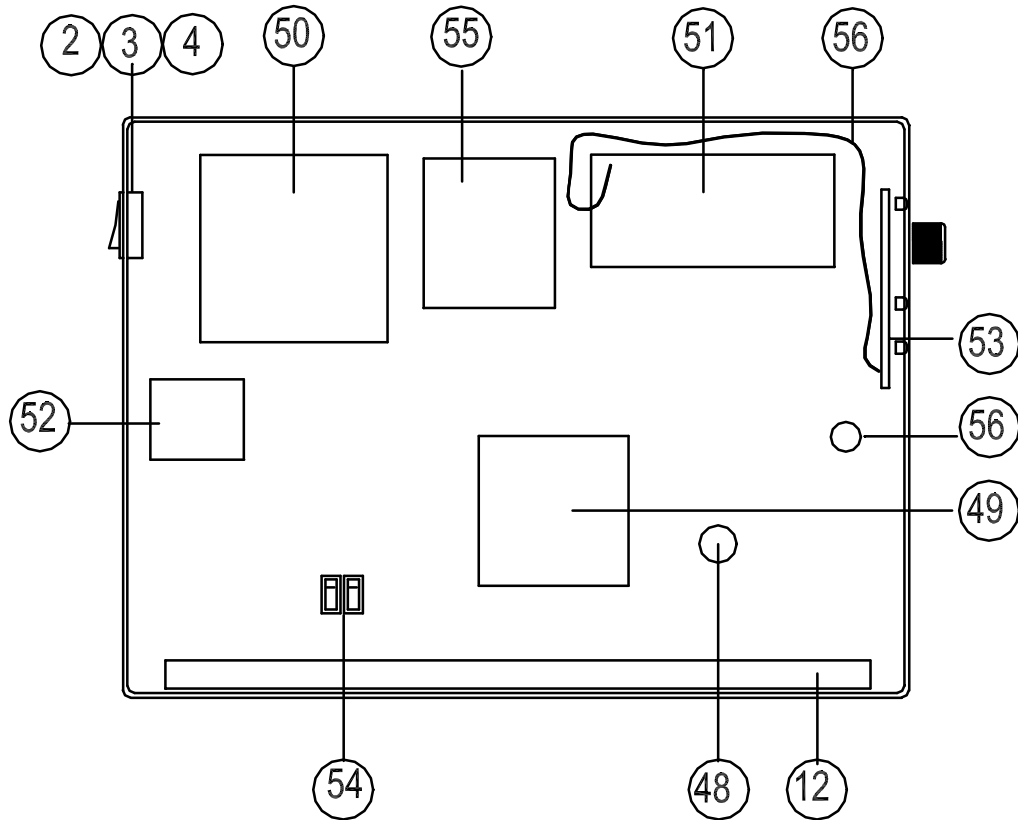
44 resistance supply micro switch adjustment screw

45 bushing

46 elastic ring

47 pivot

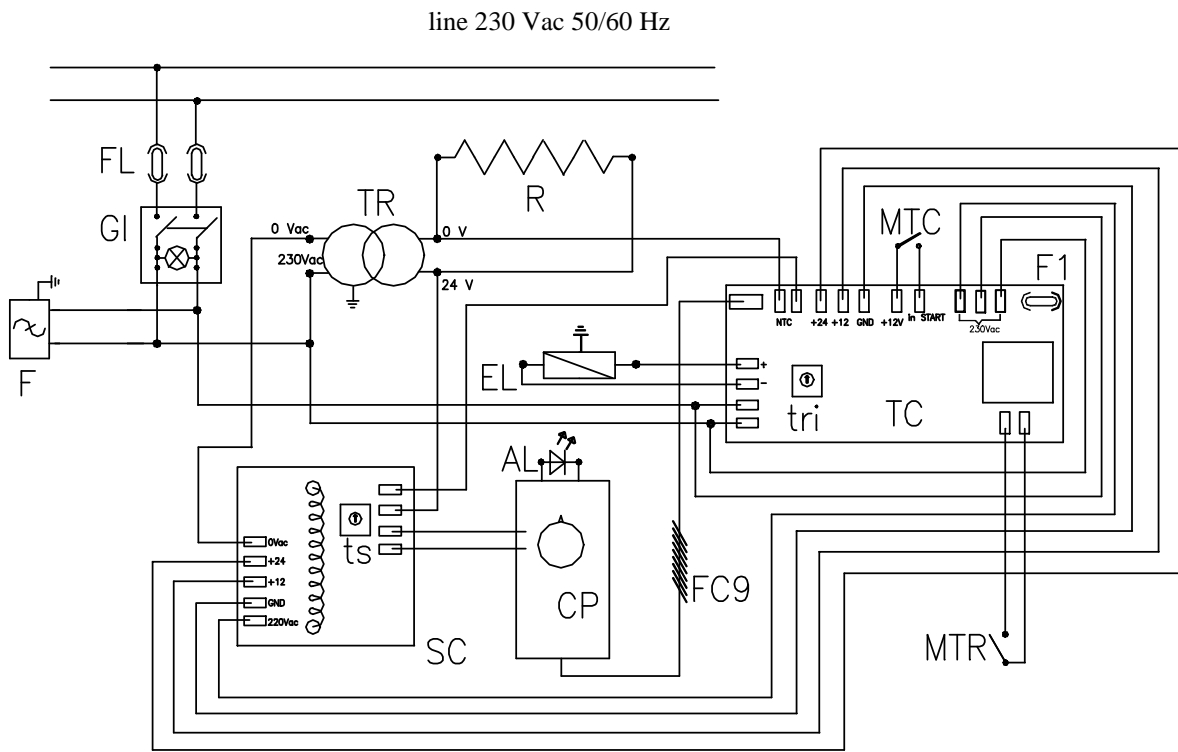
VIII. LIST OF THE INTERNAL PARTS



pict. 11

2	main switch	50	transformer
3	electric supply socket	51	electronic timer board
4	line fuses box	52	EMQ ant jamming filter
12	lower sealing bar	53	command panel board
48	opening pivoted plain spring	54	electromagnet & resistance start micro switch
49	electromagnet	55	electronic safety board
		56	adjustment opening bars ball grip

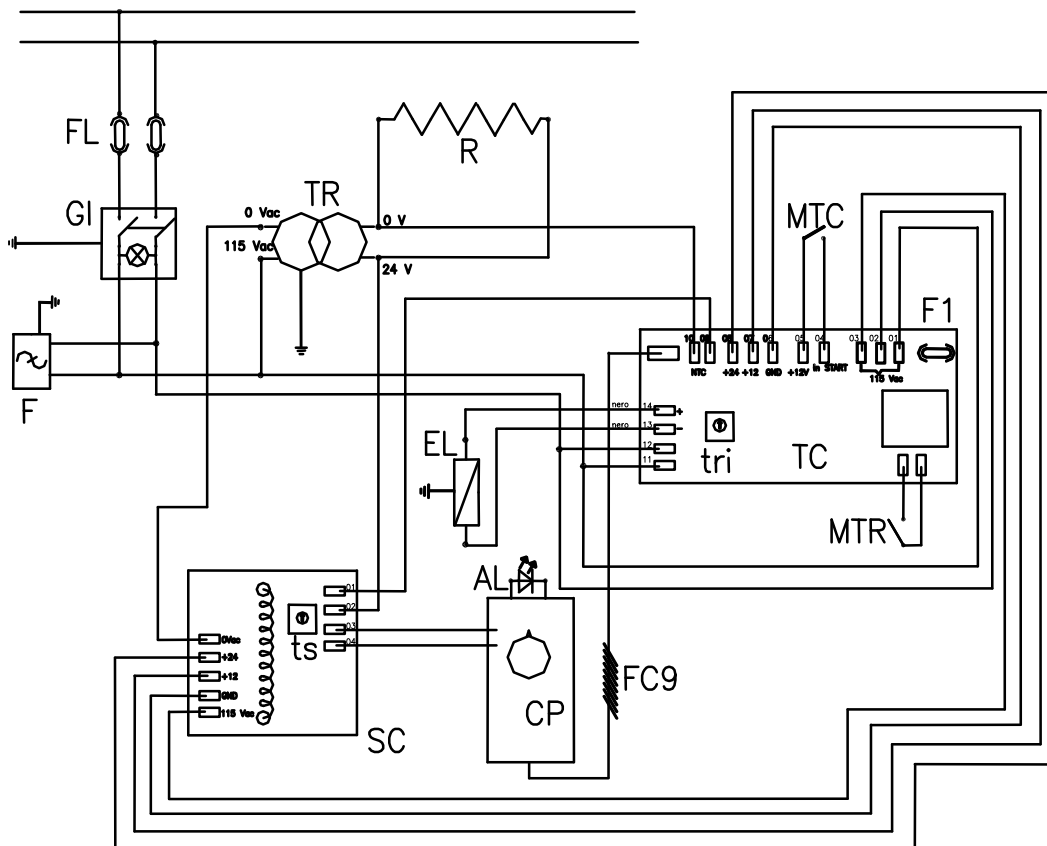
IX. ELECTRIC DIAGRAM



AL	alarm led	MTC	cycle starting micro switch (elettromagnet)
CP	command panel	MTR	heating starting micro switch
EL	electromagnet	R	strap resistance
F	ant jamming filter	SC	electronic safety board
FC9	flat cable 9 pins	TC	electronic timer board
FL	fuses 4 AF	TR	transformer 250VA , 230 / 24 Vac
F1	fuse 100 mA	tri	cooling time adjustment trimmer
GI	main switch	ts	safety time trimmer

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line 115 Vac 50/60 Hz



AL	alarm led	MTC	cycle starting micro switch (elettromagnet)
CP	command panel	MTR	heating starting micro switch
EL	electromagnet	R	strap resistance
F	ant jamming filter	SC	electronic safety board
FC9	flat cable 9 pins	TC	electronic timer board
FL	fuses 6,3 AF	TR	transformer 250VA , 1150 / 24 Vac
F1	fuse 100 mA	tri	cooling time adjustment trimmer
GI	main switch	ts	safety time trimmer

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X. LIST OF THE SPARE PARTS FOR THE NORMAL MAINTENANCE

CODE	POSITION	SET n° pieces	DESCRIPTION
20010	12 pict. 7	1	complete sealing bar
20001	24-30 pict. 7	10	protec. cloth for upper & lower bar
20002	25 pict. 7	5	strap resistance
20003	26 pict. 7	3	sub-resistance band
20012	27+28 pict. 7	1	socket+screw
06032	29 pict. 7	4	compensation spring
20011	16 pict. 8	1	complete upper mobile bar
20005	32 pict. 8	3	pressure rubber
48002	35 pict. 9	1	blade

XI. LIST OF THE SPARE PARTS FOR THE EXTRAORDINARY MAINTENANCE

CODE	POSITION	SET n° pieces	DESCRIPTION
DB 90061	2-3-4 pict. 11	1	main switch
DB 20011	52 pict. 11	1	ant jamming filter
90029	54 pict. 11	2	starting micro switches
20015	49 pict. 11	1	Elettromagnet
20016	50 pict. 11	1	Transformer
20004	51 pict. 11	1	electronic timer board
20025	55 pict. 11	1	electronic safety board

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XII. PROBLEMS & SOLUTIONS

PROBLEM	CAUSE	SOLUTION
The machine does not function and the warning light of the main switch does not flash	<ul style="list-style-type: none"> -The power cable is not correctly insert into the wall socket or in the machine socket. - The fuses are interrupted - The internal electrical circuit of the machine is interrupted 	<ul style="list-style-type: none"> - Insert correctly the plug into the socket - Check and, if necessary, replace the fuses with others of the same kind and the same value - Put in contact with the manufacturer
The fuses intervene every cycle	The electronic circuit of the sealing wire is in short circuit	Check if the power cables of the resistance are correctly linked
The machine functions in a discontinuous way	The power cable is interrupted	Replace the power cable
The machine functions but, after a serie of rapid seals, does not more seal	<ul style="list-style-type: none"> - The control electronic circuit of the sealing temperature stopped temporarily the machine - The thermo protection of the transformer intervenes 	<ul style="list-style-type: none"> - Let the machine cool - Let the machine cool
Pressing the pivoted plain , the cycle starts but the machine does not seal	<ul style="list-style-type: none"> - Sealing time on "0" - Sealing electronic circuit interrupted - Sealing wire interrupted - The closing bar control micro switch is interrupted 	<ul style="list-style-type: none"> - Set the hand wheel as shown on page 5 - Put in contact with the manufacturer - Replace the resistance after checking electrical circuit as shown on page - Put in contact with the manufacturer
The machine does not correctly seal: <ul style="list-style-type: none"> - the temperature is too low - the temperature is too high 	<ul style="list-style-type: none"> - The sealing time is set on a too low value - The sealing time is set on a too high value 	<ul style="list-style-type: none"> - Set the hand wheel as shown on page 5 - Set the hand wheel as shown on page 5
The cooling time is too short or too long	- The cooling electronic circuit is not right set or faulty	- Put in contact with the manufacturer
The seal is not perfect	<ul style="list-style-type: none"> - The protective clothes in glass/PTF are consumed - The rubber of the upper mobile bar is damaged - The sealing wire is damaged 	<ul style="list-style-type: none"> - Remove the sealing bar from its place and replace what necessary (see page 7,8)
The sealing bar does not stay in pressing	<ul style="list-style-type: none"> - The electromagnet is interrupted or disconnected - The micro switch cycle is interrupted 	<ul style="list-style-type: none"> - Check the electrical/mechanical links - Put in contact with the manufacturer
alarm led is lighted on	<ul style="list-style-type: none"> - The safe electronic circuit intervenes because of a lack in the electronic sealing circuit working - The 9 pins flat cable could be not correctly insert 	<ul style="list-style-type: none"> - Put in contact with the manufacturer (we suggest not to use the machine) - Check the links to the control panel and the board n°51 pict. 11

XIII. WARRANTY TERMS

The GANDUS's 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, etc.

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.

XIV. SPARE PARE ORDERING

Always mention:

1. Serial number of the sealing machine
2. Quantity of the spare part you need
3. Position and table number identifying the requested spare part

XV. HOW TO DISCARD THE MACHINE



According to the DIRECTIVE 2002/96/CE rules this symbol indicates that the device, when its work-life is ended, **must not be discarded as a urban waste.**

It can be given to a suitable discharging centers of the electronics and electric equipments or delivered to the dealer if you purchase an equivalent device.

The device owner is responsible for the delivery in to the discharging centers.

To get more informations about the discharging system, we suggest you to contact your local discharging waste service.

The right discharging of the disuse devices avoids such a negative consequences to the ambience and the human health.