D 700

ROTARY SEALER

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v.1.0

WARNING

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

CONTENTS

SYMBOLS:

warning meaning danger

warning meaning particular suggestion

warning meaning suggested maintenance

1. INTRODUCTION

1.1 Use and safekeeping of this manual

We thank you for the trust you put in us by buying our heat-sealer serie Gima D 700.
We are sure that, following correctly the instructions in this manual, you will find the quality of this product worth of appreciation.
For this reason, please give noted the present instructions to all people who are likely to use this machine.

WARNING
All people 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 indispensable part of the equipment.

It must be safekept for continuos 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.

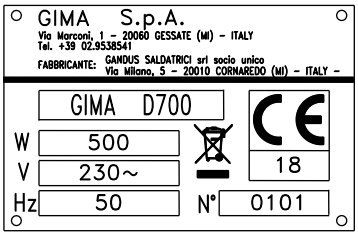
In case of loss or damage, the customer can ask for a new manual of instructions, mentioning:

- model
- serial number
- manufacturing date

This information are written on the identification plate (pict.1.2), situated on the rear of the machine (pict.1.1).

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

pict.1.1



pict.1.2 *(Id. plate n.1-pict.1.1)*

1 Identification plate
2 Main power supply
3 General luminous switch

1.2 Manufacturer's responsability limits

The sealer manufacturer 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 in the scheduled maintenance
- modify the heat sealer without the authorisation of the sealer manufacturer
- use of non original spare parts and not suitable for the model
- partial or total non compliance with the instructions
- exceptional events

1.3 Expected use

The *Gima D 700* is a continuous heat-sealer for closing hermetically sterilization pouches with chirurgical instruments and disposables made with multilayered envelopes like polyester / polyethylene, or other multilayered envelopes bags like paper/polyethylene, aluminium/polyethylene, etc.

The machine has been studied to be used only by an operator.

WARNING
The machine must not be used for other use than the one above mentioned, for which the machine has been designed and built.

WARNING
THE HEAT SEALER MUST NOT TO BE USED FOR THE SEALING OF SINGLE PLASTICS FILMS LIKE POLYETHILENE, PLYPROPYLENE, PVC, AND SO ON.

1.4 Technical characteristics

- Sealing speed 8 m/min
- Electronic temperature control with 10°C - 200°C (±1%)
- Automatic stop of the heat-sealer if the sealing temperature has fallen down from setting value in a range ± 5°C.
- Electronic control of sealing force and speed
- Automatic stop of the machine if the sealing force and speed has fallen down from setting value
  (Fmin = 70N – Fmax = 102N; Smin = 5,0 m/min – Smax = 6,5 m/min)
- Autotest function
- Check internal temperature machine using thermal probe
- Clock and calendar with automatic update
- LC display with 2 lines for 8 characters
- Membrane keyboard with keys with buzzer
- Sealing width 12,5 mm multilines
- Free edge over the seal 0 - 30 mm
- Preadjusted sealing pressure
- Electronic printing group using a 9-needle matrix head.
- 1 USB port for connection to a USB pendrive
- Power supply: 230-240V 50/60Hz or 100-115V 50/60Hz
- Power absorption 500 W
- Acoustic emission level 70 dB(A)
- Dimensions without accessories:
  Width = 473 mm - Depth = 235 mm - Height = 181 mm
- Net weight 14 Kg
- As for DIN 58953 P. 7 specifications
- Built in accordance to the CE rules
- Environmental working conditions:
  Temperature: from 5°C to 40°C (from 41°F to 104°F)
  Humidity relative: 30% - 95% (without condensation)

Gima S.p.a. ***reserves the right to modify the machines they construct without any obligation respect to those previously supplied***

1.5 Transport and moving

We suggest to use the original packing during the transport.
We suggest to handle with care and to keep the packing, in dry environment, following the positioning symbols.

TO AVOID DAMAGE TO THE MACHINE, WHEN IT IS MOVED, IS FONDAMENTAL TO PRESERVE THE ORIGINAL PACKING.

Gima S.p.a. **declines every responsibility for eventual damages to the machine, in case of shipments made without the original packing**

To avoid damage when unpacking and for subsequent movements, act only below the basement.

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

1.6 Safety rules

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

Before electrical wiring, check if the data on the identification plate (pict.1.2) corresponds to the local power supply

WARNING
CONNECT THE MACHINE ONLY TO A POWER SUPPLY WITH A PROTECTIVE DEVICE AGAINST OVERVOLTAGE AND DISPERSION TO EARTH, IN ACCORDANCE WITH THE SAFETY RULES AND CORRECTLY SIZED.

WARNING
UNPLUG THE MACHINE FROM THE MAIN POWER SUPPLY (N.2-PICT.1.1) BEFORE ANY MAINTENANCE OPERATION.

Do not operate with the heat-sealer if the safety panels are open or removed.

Here there are the most important suggestions for the safety and good maintenance of the machine:

- To ensure its good function, keep the heat-sealer clean.
- Before cleaning procedures on the heat-sealer machine unplug it (n.2-pict.1.1) 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.
- 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: from 5°C to 40°C (from 41°F to 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 of 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.
- In case of replacement of the fuses check that they are at the same value

Safety Signs

Signs	DESCRIPTION
	**General Warning**
	**Burns due to temperature dangerous warning**
	**Electricity Danger - Dangerous Voltages**

1.7 To discard the machine

According to the DIRECTIVE 2012/19/EU 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.

2. INSTRUCTIONS FOR USE

2.1 Installation

The equipment can be used in any working environment that is dry and without excessive dust, according to the chap.1.6

Place the sealer on a work surface, leaving an enough large space in front of it for the bags to run over and on the sides the space for the introduction and exit of the bags from the machine.

Be sure that the heat sealer is at least 30 mm from the back wall in order to allow a perfect release of the heat produced inside and that on the sides there is the necessary space to allow a an easy loading and unloading of the bag that are being sealed.

2.2 Pouches introduction adjustment

To easily open the sealed medical pouches, it is necessary to leave a free edge over the seal.

According to the specific needs, it is possible to obtain a free edge from 0 to 30 mm. doing as follows:

- loosen the locking knob (n.1-pict.2.1) and move it:
  - on the right to reduce the free edge over the seal (min. 0 mm)
  - on the left to increase the free edge over the seal (max to 30 mm)
- at the end of this operation, lock the knob (n.1-pict.2.1)

1 Knob to infeed guide
2 Infeed guide

pict.2.1

2.3 Electrical wiring

Check that the main luminous switch (n1-pict.2.3) is switch off, in the " **0** " position (OFF).

Introduce the socket (n.3-pict.2.3) of the main power supply cable (n.4-pict.2.3) into the plug of the general switch (n.2-pict.2.3) before inserting the plug of the supply cable (n.4-pict.2.3) into the single phase socket.

Respecting the chapter 1.6, insert the plug of the main power supply (n.4-pict.2.3) into the single phase socket with protected earth from a anti-eletrical shock magnetothermic switch, after checking that the data of the plate are the same of the power supply net.

pict.2.2

1 USB port

pict.2.3

1 General luminous switch
2 Plug of the general switch
3 Socket of the supply cable
4 Power supply cable

2.4 Connecting to external devices

Through the **USB port** situated on the left side of the machine (see pict.2.2) you can connect the machine to an USB pendrive to save the traceability dates.

Enabling traceability (see par.3.3.2 - D), when we switch on the machine, the system checks the connection to the USB pendrive; once the diagnostics have been completed, the machine displays the basic temperature display (pict.2.4).

If the USB pendrive is not inserted in the USB port of the machine, the alarm is shown:

ERROR 62 PUSH SET	NO PENDRIVE

Do not insert or disconnect the USB pendrive into the USB port when the machine is on

2.5 Switch on the machine

Switch on the machine through the main GREEN luminous switch (n.1-pict.2.3) on position " **I** " (ON).
The display lightens and the first screen that is displayed on the software version of the machine:

Firmware 2.00

After that the sealer does an autodiagnostic on the main components and evaluates the sealing paramerters values. In case there is any alarm situation, the dilpay will show the relative bad functioning (see chap.3); for ex. the low temperature alarm:

ERROR 12 PUSH SET	LOW TEMPERAT

After this diagnostics, if there is no alarm, the display shows the measured temperature on sealing bars (**T**) and the set temperature (**Ts**):

T =160°C Ts=165°C

pict.2.4

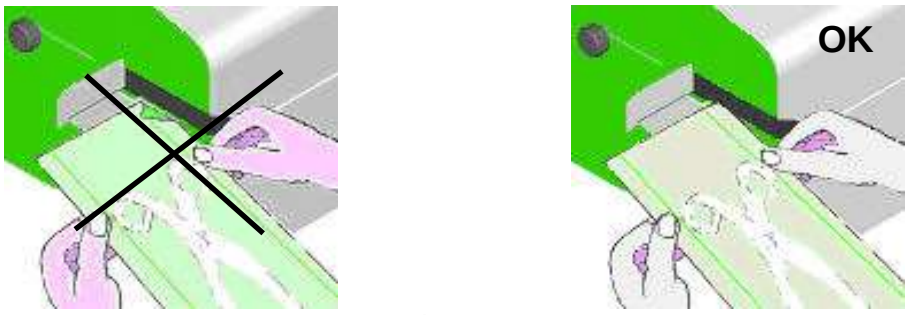
After switching on the machine, the sealing bars begin their heating; *when the current and set temperature are at the same value, the sealers is ready to be used.*

The temperature stabilization takes some minutes.

2.6 First employ

WARNING:

- **In order to avoid imperfect seals, bad functioning and/or machine stops, the operator always must introduce into the machine the pouch well stretched as shown on the pict.2.5.**



pict.2.5

- **The DIN 58953 P7 rules requires the pouches can be filled up max until ¾ of their length**
- **Do not apply any kind of label and/or adhesive on the pouches near the sealing area**
- **For proper operation of the sealing machine, avoiding alarms and / or anomalies in the trace data storage, it is important that the pouches are introduced with a relative distance not less than 50 mm.**

After switching on the machine (see par.2.5) and reaching the set sealing temperature, the machine is ready to do the first seal.

When introducing the first pouch into the sealing machine through the infeed guide the motor will automatically start running and the pouch will be feeded into the machine.

If the operator does not introduce any pouches into the sealing machine for approx. 10 sec, the gearmotor will stop automatically, in order to avoid useless consumes; it will start again running automatically when a new pouch is introduced.

3. CONTROL PANEL

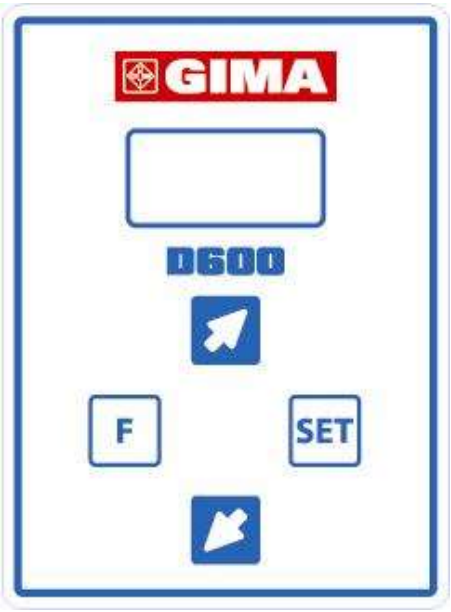
In this section will be described the panel commands, which can be done by the operator to manage the working adjustments and the desired machine configuration.

The command panel allows the operator to visualize, set and/or modify the sealing temperature parameters.

Main menu visualized are two:

- VISUALISATION MENU : it contains the working views
- SETTING MENU : enables changes in the working settings

3.1 Keys symbols



pict.3.1 (*control panel*)

The keyboard keys show the following functions:

F - Key with a double function: to shift from a view to the following or get out, without saving, from the selected section

Set - Key with a double function: to *enter the menu from settings of confirm the changes made*

 - key **Up** to increase the selected date (number or character)

 - key **Down** to decrease the selected date (number or character)

3.2 Operative visualizations

When starting the machine (see par.2.5) the display visualizes the firmware version and the software elaborates a diagnostic of the machine. Once completed, in case of no alarms or immediately after stopping the alarm, the view concerning the sealing temperature is visualized:

1)

```
T  =175°C
Ts=185°C
```

where:

T is the real sealing temperature
Ts is the set la sealing temperature

*If the **sealing temperature** is not between **(Ts+5°C)** and **(TS-5°C)** the machine stops the transport of the pouches and the alarms is activated.*

By pushing the key F the view concerning the strength and speed is shown

2)

```
F  =100,0
S  =5,9
```

where:

F is equal to the real sealing strength in Newton
V is equal to the real sealing speed in m/min

The reference sealing strength of the machine is ***85N.***
*If the sealing strength is not between **70N** and **102N** the machine does not stop the transport of the pouches and the alarms starts.*

*The reference sealing speed of the machine is **8 m/min.***
*If the sealing speed is not between **7,0m/min** and **8,5m/min** the machine stops the transport of the pouches and the alarm starts.*

When pushing the key **F** the view concerning system date and hour is shown

3)

```
22-06-10
08:31:58
```

where:

22-06-10 corresponds to the system date, in the example in day-month-year
08:31:58 corresponds to the system hour in hour-minutes-seconds

When pushing the key **F** the view concerning the print string.

4)

```
T=160°C  T
XYZ  HKJ
```

dove:

T=160°C	è la temperatura reale di saldatura
T	sul display compare la scritta " **T** " solo se la tracciabilità è attiva
XYZ HKJ	è la stringa di stampa che scorre sul display

3.3 Operating settings

Through the operating settings it is possible to set the working mode and all date concerning the pouch to be sealed.

3.3.1 Logic selection and changes of setting views

- By pushing the key **SET** from any of the 4 visualization views (1, 2, 3, 4) the machine shows the first setting view (A). By pushing many the key **Up** or **DOWN** a rotating menu is shown: it goes from one view to another.

- From a setting screen, to return to the display screen (1, 2, 3, 4), press the **F** key or simply do not do any changes for 90 seconds.

- To select and change a setting view, it is necessary to push the **SET key**, the date (number or character) will start blinking and it will be possible to change it.

Cases:

- If the date is selected from a set of predefined options (see **LANGUAGE** and **DATE**), by pushing **SET** the whole date will blink and it will be possible to visualize the following date by pushing the keys **Up** and/or **Down**; by pushing the **SET** key the choice will be confirmed and the date will stop blinking.

- If the date is a ***numeric value*** (see **TEMPERATURE**), by pushing **SET** the whole date will blink and it will be possible to increase it through the key **Up** or decrease through the key **Down**; by pushing then key **SET** change and date will be confirmed and the date will stop blinking.

- If the date is ***alphanumeric*** (see **OPERATOR** and **BATCH**), by pushing **SET** the first left character will blink and it will be possible to find the desired character by pushing keys **Up** and/or **Down**; to confirm the selected character it will be necessary to push key **SET**: it will stop blinking and the one on the right side will start blinking. The modification of the data will be acquired only after having confirmed all the characters of the string; then pressing the **Up** or **Down** button the system will propose the next settings screen.

  NOTE

  - **List alphanumeric settable characters:**
    A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
    0 1 2 3 4 5 6 7 8 9 ( ) : BLANK ' * + , -. / ! " # & < = > ? @

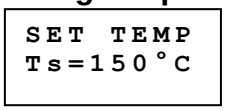
  - To **cancel the whole string** it is necessary to push for 3 seconds key **SET** when the first left character is blinking

- To **cancel the single character** it is necessary to select the **BLANK** in the desired position
- By pushing keys **Up** and/or **Down** the characters will change quickly; by pushing once the key the change will be slow.
- By pushing key **F** with the blinking date no change will be done and the following view of the setting menu

3.3.2 Setting views sequence

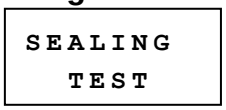
Following the proposed views sequence; push key **UP** to move from one view to the following.

A) Sealing temperature

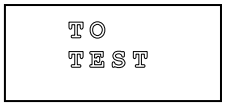


Sealing temperature in °C (**Ts**) ; temperature value can be between 10°C and 200°C

B) Sealing Test



Pushing the **SET** button the following flashing screen will be proposed



When pushing SET button, motor starts and the machine waits for the introduction of the pouch on which the following data will be printed, with a width of 23 ch / "

Example.**: 27-04-2016 10:23 °C 160 m/min 08.1 N 089.1**

27-04-2016	-	Production Date
10:23	-	Production Hour
°C 160	-	Sealing Temperature
m/min 08.1	-	Speed
N 089.1	-	Pressure

If the pouch is not introduced, the motor switches off after about 20sec

C) Set print

Pushing the **SET** button will display visualized:

By pushing the SET button it will be possible, using the **UP** and / or **DOWN** button, to set "YES" (print active) or "NO" (print OFF); press the SET button to confirm or F to exit the selection.

The printing width will be set on the next screen

```
CHARACT.
C/" 23
```

Pushing the **SET** button it will be possible, using the **UP** and / or **DOWN** button, to set a print character with a width between 6 characters / inch (larger characters) and 23 characters / inch (narrower characters); press the **SET** button to confirm or **F** to exit the selection

The next screen will be the verse of printing

```
DIRECTIO
STRAIGHT
```

Push the **SET** button it will be possible, using the **UP** and / or **DOWN**, to choose between ***STRAIGHT*** (direct printing) or ***REVERSE*** (print opposite to the right side); press the **SET** button to confirm or **F** to exit the selection

The print order will be defined on the next screen

```
SEQUENCE
°CS-----
```

Push the **SET** key the first position on the left will start to flash and with the **UP** and / or **DOWN** button the symbols corresponding to the strings to be printed can be displayed (see table below); pressing the **SET** key will confirm the selected symbol while pressing the **F** button will exit without saving; the selection will be saved only after confirming with the **SET** button all 8 positions of the string

IF THE SYSTEM ARE EMPTYED EMPTY OR SYMBOLS DOUBLE THE SYSTEM MEMORIES A PRINT STRING WITHOUT EMPTY SPACES BETWEEN A SYMBOL AND THE NEXT AND WILL ELIMINATE THE DOUBLE SYMBOLS.

Table of print symbols

PRINTING	SYMBOL
Production Date	
Expire Date	
Batch	
Operator	
Sealing Temperature (°C)	**°C**
Sealing Pressure (N)	
Sealing Speed (m/min)	S
Traceability code (identification number of heat sealer + indentification pouch code)	**T**
BLANK (empty)	**-**

D) Traceability setting (*see par.3.5*)

```
TRACE
  NO
```

By pushing key **SET** the two following blinking views will appear:

```
  TO
MODIFY
```

```
PUSH SET
```

By confirming through key **SET**, through keys **Up** and **Down** it will be possible to activate the traceability (**YES**) or deactivate (**NO**)

```
TRACE
 YES
```

The next screen will be the **identification number of the heat sealer**

```
SEALER
N. 01
```

By confirming through key **SET**, through keys **Up** and **Down** it will be possible to modify the machine ID

```
SEALER
N. 01
```

The machine ID number is between **01** and **99**. This number is important when dealing with traceability (*see par.3.5*).
It is important that every machine is identified by a univocal number.

On the next page of the traceability file with the description of the individual columns

DESCRIP. COLUMNS	DESCRIP. YES

Using the **UP** and / or **DOWN** button, it is possible to activate the saving of the first descriptive line (YES) or deactivate it (NO); press the **SET** key to confirm or **F** to exit the selection.

By activating the traceability, the corresponding traceability code (machine identification number and envelope identification code) is printed on each envelope as the first data item of the print string; the tracking code is printed even if printing is disabled.

In the traceability file, the record for the welded envelope is generated only after the printing phase and after the time required for the envelope has elapsed to exit the heat sealer. If the printing phase has not taken place, the record is not generated.

E) System Date and hour (of the machine)

MODIFY DATE/H

By pushing key **SET** the view of the **system date** will be visualized

DD-MM-YY 22-03-10

hh-mm-ss : day-month-year
HH-MM-MM : hour:minuts:seconds

By pushing key **SET** the number of the day will start blinking; by keys **Up** and/or **Down** it will be possible to increase and/or decrease the number; by pushing key **SET** the date will be confirmed or F to exit

The "production date format" screen that can be set with different sequences will follow:

FORM PR. dd-mm-yy

yy-mm-gg : year-month-day
dd-mm-yy : day-month-year
mm-gg-yy : month-day-year
yy-mm : year-month
mm-yy : month-year
yy : year

The production time print page will follow

PROD T. YES

By pressing the **SET** button it will be possible, using the **UP** and / or **DOWN** button, to set **"YES"** (printing now active) or **"NO"** (printing now deactivated); press the **SET** button to confirm or **F** to exit the selection.

Pressing the **SET** button will display the "expiry date format" screen which can be set with different sequences:

SIZE EXP dd-mm-yy	
	yy-mm-gg : year-month-day
	dd-mm-yy : day-month-year
	mm-gg-yy : month-day-year
	yy-mm : year-month
	mm-yy : month-year
	yy : year

The following "machine date and time setting" screens follow.

YEAR 2016	MONTH 10	DAY 10

By pressing the **SET** button it will be possible, using the **UP** and / or **DOWN** button, to make the setting; press the **SET** button to confirm or **F** to exit the selection.

F) Beeper mode activation

BEEPER YES

By pressing the **SET** button it will be possible, using the **UP** and / or **DOWN** button, to set **"YES"** (sound mode on) or **"NO"** (sound mode off); press the **SET** button to confirm or **F** to exit the selection.

G) Language display

LANGUAGE ENGLISH

Up to 6 languages can be set the display of the machine:
ITALIAN, ENGLISH, SPANISH, GERMAN, DUTCH, FRENCH, PORTUGUESE.

H) EXPIRY DATE

DATE EXPIRY

Pressing the SET key will display:

EXP. T. MONTH

By pressing the **SET** button, the word **MONTH** will flash and using the **Up** and **Down** button it will be possible to select **MONTHS** or **DAYS.**

On the next screen you can set the number of **MONTHS** (minimum: 1, maximum: 99 months) or **DAYS** (minimum: 1, maximum: 999 days).

```
EXP. T.
MONT.  1
```

I) Operator's name

```
OPERATOR
SILVIA
```

Operator's name is a string composed by max 8 alphanumeric characters

L) Batch code

```
 BATCH
AB01
```

The batch code is a string composed by max 8 alphanumeric characters

3.4 Machine alarms

When an alarm condition arises, the machine shows an acoustic signal (*beep*) and 2 blinking views are visualized, one after the other: the first with the alarm code (*for the codes list see Tab.1*) and with the operation that needs to be executed to stop the alarm, the second with a description of the aberration.

By pushing key **SET** the acoustic signal stops and the two blinking views disappear. In case one of the sealing parameters (temperature, strength, speed) is beyond the set limits, in visualization views 1) and/or 2) the relating number value will blink. If alarm is blocking (see Tab.1) the motor of the machine stops and does not start.

Example alarm views:

```
ERROR 32
PUSH SET
```

```
  LOW
FORCE
```

after pushing key **SET**, in the visualization view 2) the strength value blinks

```
F =75,0
S =6,2
```

Tab.1 – ALARMS LIST

Cod.	Message	Blocking Alarm	Aberration Description	Action
11	HIGH TEMPERAT	YES	High Temperature, beyond the superior limit	Push **SET** per reset alarm e wait
12	LOW TEMPERAT	YES	Low Temperature, below the inferior limit	Push **SET** per reset alarm e wait
21	HIGH FORCE	YES	High Strength, beyond the superior limit	Push **SET** per reset alarm e check cause

22	LOW FORCE	YES	Low Strength, below the inferior limit	Push **SET** to reset alarm and check cause
31	HIGH SPEED	YES	High Speed, beyond the superior limit	Push **SET** for **3 sec** to reset alarm and check cause
32	LOW SPEED	YES	Low Speed, below the inferior limit	Push **SET** for **3 sec** per reset alarm e check cause
13	DAMAGED PROBE	YES	Probe bars temperature broken	Probe replacement
23	DAMAGED LOAD C.	YES	Load cell broken	Load cell replacement
14	INT TEMP FAULT	YES	Probe of the board damaged	Board replacement
24	CALIBR. LOAD C.	YES	Loss load cell calibration	Execute load cell calibration
15	CALIBR. PID	YES	Error heating parameters	Execute Auto tuning
17	CALIB. PROBE	YES	Errors in temperature detection	Board replacement
71	SEALER VENTILAT	NO	Temperat. inside machine equal to 50°C (prealarm temperat. machine)	Reset alarm and check cause
72	INTERNAL TEMPERAT	YES	Overcoming temperature limit inside the machine (higher internal temp. equal to 60°C)	Reset alarm and check cause
41	SET LOSS	NO	Settings loss	Reset alarm and check cause and consequences
51	DATA/HOUR LOSS	NO	Low battery	Battery replacement
62	MISSING PENDRIVE	NO	No connection to pen drive USB	Reconnection to pen drive or traceability deactivation
62	NO PENDRIVE	YES	No connection or lost connection to the USB pendrive	Reconnection to the pendrive or deactivation of traceability
63	FILE SYSTEM	YES	It is generated if traceability is active	Reset alarm and check cause and consequences
64	ERROR SCRIPT.	YES	It is generated if traceability is active	Reset alarm and check cause and consequences
81	ALARM SERVICE	NO	Reached 365 days since the last calibration	Call technical service (see par.3.7)
25	CALIB. EXPIRED	NO	Reached 365 days since the last calibration	Call technical service (see par.3.7)
Cod.	**Message**	**Blocking Alarm**	**Aberration Description**	**Action**

3.5 Traceability

By activating the traceability (see par.3.3.2-D)

the firmware of the machine creates in the pen-drive USB connected to the machine a txt file with the following name:

Trace_N. machine_yyyymmdd.txt **yyyymmdd** : year manth day

For example if **machine N. is equal to** 02, the file name is **TRACE_02_20160225.txt**

When a pouch is sealed and only after print phase, in the traceability file a data record is created with all the information concerning the pouch, including blocking alarms eventually arisen during the sealing of the pouch itself.
Every record of the file is composed by 11 columns separated by point and comma:

DATE	HOUR	MACHINE SOFTWARE VERSION	MACHINE ID	POUCH ID	SEALING TEMP.	SEALING SPEED	SEALING FORCE	BATCH	OPERAT.	ALARM CODE
YYYY/MM/DD *(°)*	hh.mm.ss *(°)*	4 alphanum characters	2 numeric character	5 alphanum character	3 numeric character (in °C)	5 character (in m/min)	5 characters (in N)	8 alphanum characters *(°°)*	8 alphanum characters *(°°)*	2 numeric characters *(°°°)*
2010/03/25	*16.38.59*	*1.01*	*01*	*015GL*	*125*	*007.4*	*100.1*		*P1*	*00*

Note

- *(°)* Y = year M = months D = days h = hours m= minutes s = seconds n= number

- *(°°) if no operator is present, there are 8 characters Blank*

- *(°°°)* alarm code:

  - if a blocking alarm linked to the pouch is present, the column “alarms” will show a 2 numbers code (see Tab.1)

  - if no alarm code is present, when the pouch leaves the machine, in the column “alarm” will be written 00

if the machine is switched off or if the USB pendrive is extracted before writing the alarm code or the code 00, no code will be present in the alarm column and this will indicate non-compliance.

- The pouch ID code is composed be an alphanumeric code of 5 progressive alphanumeric characters.

Example: 00001– 00002 – 00003 - … - 00009 – 0000A – 0000B - … – 0000Z – 00011 - … 0001Z - …. –00021

Example file traceability created by a machine identified by 01 and with version software 01

file name: **Trace_01_20160225.txt**

EXAMPLE TRACEABILITY FILE with column description disabled:

27/04/2015	15.50.43	1.01	14	_14GL	29	9.7	102.9	L1505R	Kevin	0
27/04/2015	15.50.53	1.01	14	_14HL	---	10.0	104.7	L1505R	John	12
27/04/2015	15.51.06	1.01	14	_14IL	30	9.7	++++	L1505R	Rebecca	21

EXAMPLE TRACEABILITY FILE with column description enabled:

Date	Hour	Firmware	Id.sealer	Id pouch	T (°C)	S (m/min)	F (N)	Batch	Oper.	Alarm
27/04/2015	15.50.43	1.01	14	_14GL	29	9.7	102.9	L1505R	Kevin	0
27/04/2015	15.50.53	1.01	14	_14HL	---	10.0	104.7	L1505R	John	12
27/04/2015	15.51.06	1.01	14	_14IL	30	9.7	++++	L1505R	Rebecca	21

N.B : when the welding parameters (temperature, speed or strength) are out of the preset limits and generates an alarm, in the corresponding column, the numeric value will be replaced by "---" or "++++".

3.6 Block – Unlock display

The display lock is a software option which prevents any change in the recorded parameters/data; with a locked display all views of all menu can be visualized but it is impossible to carry on any change.

To lock or unlock a display, it is necessary to push key **F** during the starting phase of the machine.

If the lock or unlock procedure has been correctly carried on, the system will show the initial view.

X) `DISPLAY LOCKED` or Y) `UNLOCKED DISPLAY`

If the system has been locked, once you enter the menu of operative settings, the system shows the view X) for 3-4 seconds before showing the initial view of the menu.

4. CORRECT FUNCTIONING

4.1 Sealing temperature

The sealing temperature value has to be set according to the thickness, the kind and the condition of the material to seal.
Check that the set temperature corresponds to the suggested one by the bags manufacturing house.

Should this value be unknown, following a table containing indicative adjustment values of the heat sealer, according with the material used.

NORMAL STERILIZATION BAGS (*)

MATERIALS	PAPER/POLYPROPYLENE-POLYESTER	HEAT SEALABLE PAPER	TYVEK
FLAT POUCH	160 °C – 170 °C	150 °C – 170 °C	120 °C-130 ° C
GUSSETED POUCH	165 °C – 175 °C	155 °C – 165 °C	- - - - - - -

(*)Gima S.p.a. takes no responsability for the given data reliability.

For other materials or in case of troubles in finding the correct temperature, please send *Gima S.p.a.* a sampling of bags to allow comparative tests and calculate the relevant adjustment values.

To set a new sealing temperature value see par. 3.3.

Make some tests to check the correctness of the new temperature value.

4.2 Sealing pressure

The sealing pressure is already set by the manufacturer according with all materials in normal use.

In case you should need a pressure increase/decrease for special purposes see par.5.5.

4.2.1 Pressure control

Through the data showed on the display (see par.3.2) it is possible to check the correct sealing force, which, when the motor if off and with working temperature, must be close with the preset original value of the identification plate (85,0 N).

Beside, the pressure display shows the right behaviour range of the sealing pressure (-15N / +17N). If, when the sealer is on stand-by, the pressure value will close to one of the

indicated limits, act as described in par. 5.5 to restore the original set value. If the modification exceedes the tolerance limits for the good functioning the machine shows the correspondant alarm on the display; check the cause.

Avoid using the sealer with pressure values that exceed the preset value of the identification plate, as the correspondant alarm could appear and the mechanics of the machine is exposed to a higher wear and tear.

4.3 Sealing quality

Aiming to obtain steady high quality seals, please follow these guidelines:

- during the sealing cycle the bag should not be submitted to any traction or moves;

- make sure that the part of the bag to be sealed is clean and dry;

- place carefully the mouth of the bag to be sealed inside the in-feed guide; during this operation, remove the air in excess;

- keep the mouth of the bag spread out until it is fully introduced in the sealing area of the machine; this will prevent from any damage to the sealing (see par. 2.6);

- never feed the pouches into the in-feed guide using a feeding speed higher than the machine transport speed;

- pouches feeding too much fast, can interfere with the in-feed photocell characteristic that might cause a transport stop;

- do not stop the sealer during the sealing, with the exception of emergency situations;

- should the bags be of small/medium size or with a light and not bulky contents, they can be conveyed by the machine over the support surface;
  Should the bags be heavier and larger, the entrainment will be easier by using the slip rolls during the sealing (see par.9.1). The operator should in any case drive the bag during the sealing process.

Never introduce into the machine bags on which labels or adhesive tapes are applicated; this origins rests of material into the sealing tunnel, which causes the bags jam into the machine.

To obtain perfect seals and to make the work easier, the DIN 58953 rules state that the pouches must not to be filled more than the 3/4 of their length, letting always not less than 30 mm between the content and the internal edge of the seal.

4.4 Normal stop of the heat sealer

To switch off the heat sealer press the main GREEN luminous switch (n.3-pict.1.1) to the position " **O** " (off).

With the exception of emergency situations, do not stop the machine during the running of one or more pouches in the sealing area. This will avoid the overheating of the bags and the burning of material.

4.5 Emergency stop

In case of emergency, unplug the power cord (n.2-pict.1.1) from the machine. This action causes the complete disconnection of power supply and the consequent immediate stop of moving parts.

After solving any issue, to restart the sealer it is necessary to act on the main the GREEN light switch (n.3-pict.1.1) on " **O** " (off), reconnect the power cable and then run as described at par.2.5.

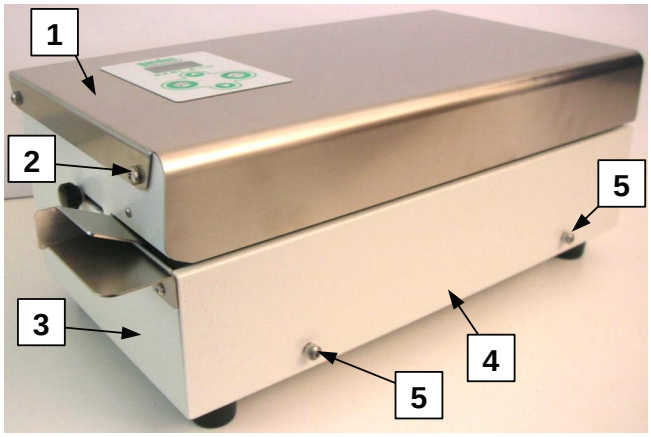
Since the temperature during the stop has come down, you will have to wait several minutes before the sealer will starts transport up to the temperature is reached.

4.6 Printer

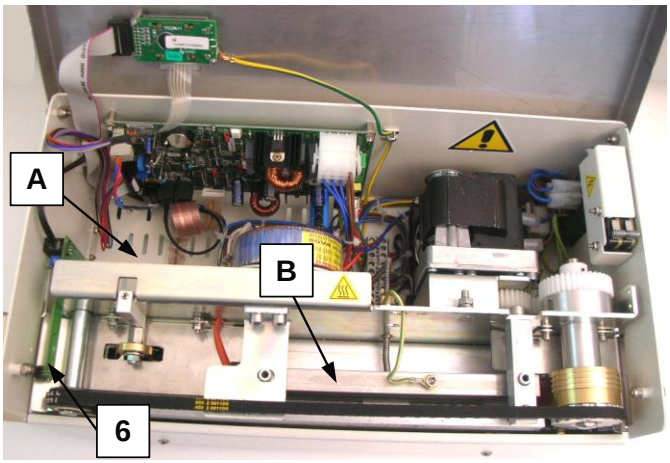
The sealer has a built-in dot matrix printer (n.4-pict.4.3) with ink ribbon (n.7-pict.4.4).
The printing function is electronically controlled by the infeed photocell (n.6-pict.4.2), which activates the print when the pouch is completely transited out of the reading range of the photocell. If you choose the printing function from the control panel (see par.3.2.5) the printer will print the data set by the operator on the pouches before it goes out of the machine.

The printer works correctly if the print quality is neither too soft or to strong.

The photocell works correctly if the printing phase stops automatically after the pouch is out of the reading range of the photocell.



pict.4.1

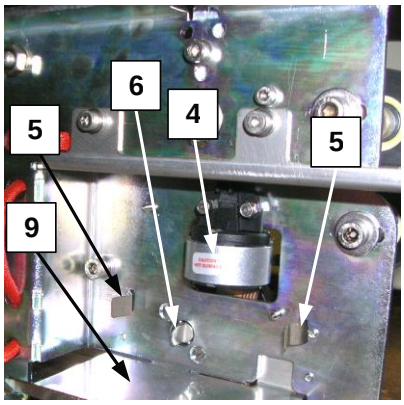


pict.4.2

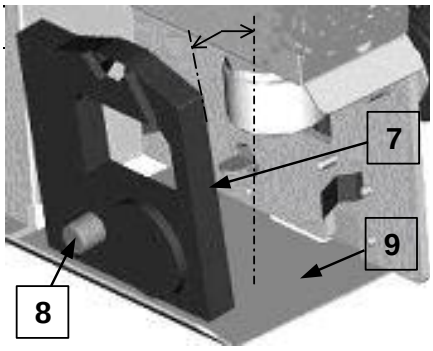
1 Upper cover
2 Screw upper cover
3 Frame
4 Frontal cover
5 Screw frontal cover

6 Infeed photocell

A Space for insertion ink cartridge
B Sealing bar



pict.4.3



pict.4.4

4 Printing head
5 Spring for fixing ink cartridge
6 Pallet -shaft transport rotor ink cartridge

7 Ink cartridge
8 Ink cartridge rotor
9 Guide sheet for ink cartridge

4.6.1 Insert of the ink ribbon case

To insert the case, follow these guidelines:

- ⚠ **Swith off the sealer acting on the main switch (n.3-pict.1.1) and disconnect the power cable (n.2-pict.1.1).**

- Loosen the 2 screws (n.2-pict.4.1) and turn the upper cover (n.1-pict.4.1) until its total

openness: the screws (n.2-pict.4.1) will be screwed to the frame machine (n.3-pict.4.1).

IF THE SEALER IS OFF FROM FEW TIME, TO AVOID BURNS NOT TOUCH SEALBARS (pos. B-pict.4.2).

- Insert the ink cartridge (n.7-pict.4.4) inside the print area (pos.A-pict.4.2)
- Position the ink cartridge on the guide (n.9-pict.4.4): keep it tilted slightly to the rear of the machine (see pict.4.4)
- Having identified the two coupling springs (n.5-pict.4.4), slightly rotate the cartridge and insert it into the inner spring
- Without pushing, carrying the ink cartrige at the outer clip and insert until you hear a "click" into place.

This last operation has to be done without exercising any stress on the ink cartridge vanes (n.6-pict.4.3): if there were any blocks to its placing, turn the rotor slightly and retry the input.

Warning: To avoid breaking of the ink cartridge, its rotor (n.7-pict.4.4) should be rotated only in the direction of the arrow on the cassette tape itself.

- Close the cover of the machine (n.1-pict.4.1) and completely screw the two screws (n.2-pict.4.1)
- Turn on the machine (see par.2.4) and run a test print

When the machine is on and the engine in motion, should not feel bad dragging noises that indicate the ink cartridge is not running properly.

General note :

- Before introducing the ink cartridge, always check that the ink cartridge has no curlings.
- To avoid damages to the printing head dots (see pict. 5.15), do not print without the ink cartridge inside.
- In case you do not employ the sealer for some days, we suggest you to check the cleaning status of the printing area (see par. 5.9).
- In cases of high environmental temperature, we suggest you to remove the ink cartridge, if the sealer has not to be used for long time.

4.6.2 Extraction of the ink ribbon case

To take out the ink cartridge, follow the instructions here below:

- **Switch off the sealer acting on the main switch (n.3-pict.1.1) and disconnect the power cable (n.2-pict.1.1).**

- Loosen the 2 screws (n.2-pict.4.1) and turn the upper cover (n.1-pict.4.1) until its total openness: the screws (n.2-pict.4.1) will be screwed to the machine frame (n.3-pict.4.1).

  IF THE SEALER HAD BEEN OFF FROM FEW TIME, TO AVOID BURNS DO NOT TOUCH THE SEALBARS (pos. B-pict.4.2).

- Grab the cassette tape and remove the two coupling springs (n.5-pict.4.4)

- Replace with a new ink cartridge (see par.4.6.1)

- Close the upper cover (n.1-pict.4.1) and completely screw the two screws (n.2-pict.4.1)

4.7 Bag jamming

In case of a bag jamming into the machine, do as follows:

- **Switch off the sealer acting on the main switch (n.3-pict.1.1) and disconnect the power cable (n.2-pict.1.1).**

- **Do not rip the bag towards the external of the machine to avoid:**

  1. irremediable damages to the printing head needles

  2. creation of bag residuals, which could block the sealing tunnel and/or the printing area, with a consequent jam of the following bag.

To avoid jamming follow the instructions of par.2.5 and par. 4.3

4.7.1 Bag jamming in the pressure and/or printing zone

A) SIMPLE BAG JAMMING

Do as follows

- **Switch off the sealer acting on the main switch (n.3-pict.1.1) and disconnect the power cable (n.2-pict.1.1).**

- Loosen the 2 screws (n.2-pict.4.1) and turn the upper cover (n.1-pict.4.1) until his total openness: the screws (n.2-pict.4.1) will be screwed to the frame machine (n.3-pict.4.1).

  IF THE SEALER IS OFF FROM FEW TIME, TO AVOID BURNS DO NOT TOUCH SEALBARS (pos. B-pict.4.2).

- Extract the ink ribbon case (see par.4.6.2)

- Insert the reverse lever (n. 2-pict.4.7), supplied together with the sealer, into its holes on the upper motor pulley (n.1- pict.4.7): see pict.4.7.

- **Rotate the reverse lever (n. 2-pict.4.7) anticlockwise manually, slowly and carefully, up to the pouch is completely removed by the pressure wheel.**

  Pay attention to this operation because it should cause irreparable damage to the motor: if the movement of the belt was not prevented stress and go to step B).

B) HARD BAG JAMMING

Do as follows:

- **Swith off the sealer acting on the main switch (n.3-pict.1.1) and disconnect the power cable (n.2-pict.1.1).**

- Loosen the 2 screws (n.2-pict.4.1) and turn the upper cover (n.1-pict.4.1) until its total openness: the screws (n.2-pict.4.1) will be screwed to the machine frame (n.3-pict.4.1).

- Extract the ink ribbon case, (see par. 4.6.2)

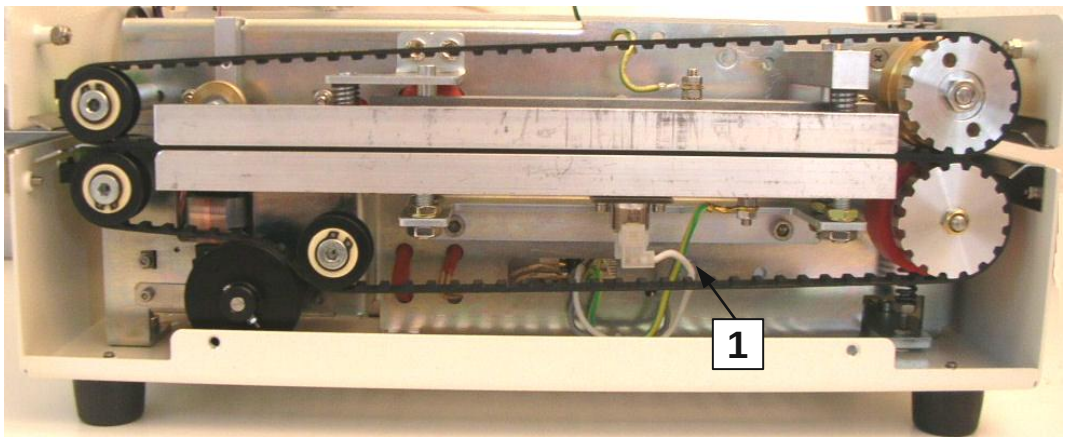
- Disconnect the motor group (3-pict.4.6): turning clockwise it after loosing the upper locking screw (n.2-pict.4.8) and the rotation screw (n.1-pict.4.5)

- Only if necessary, reduce sealing pressure (see par.4.2)

- Insert the reverse lever (n. 2-pict.4.7), supplied together with the sealer, into its holes on the upper motor pulley (n.1- pict.4.7): see pict.4.7.

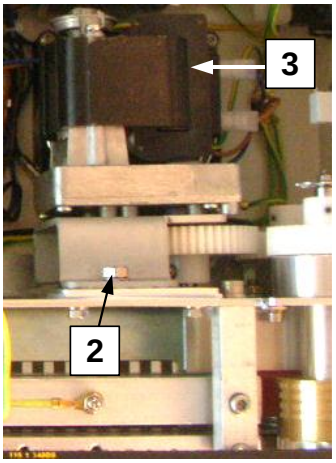
- **Rotate the reverse lever (n. 2-pict.4.7) anticlockwise manually, slowly and carefully, up to the pouch is completely removed by the pressure wheel.**

- At this point, slowly and smoothly pull the jammed envelope



pict.4.5

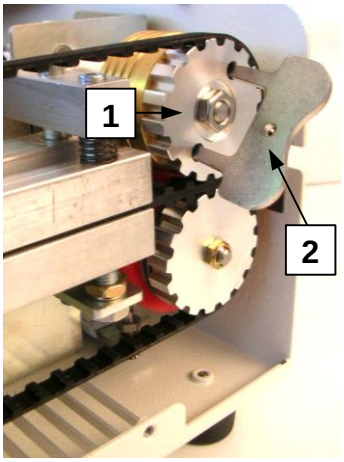
1 Rotation screw motor reducer



pict.4.6

2 Motor reducer

3 Upper locking screw motor reducer



1 Upper motor pulley

2 Reverse Lever

pict.4.7

4.7.2 Machine Restore to the correct functioning

After leaving free the bag, before restarting the machine, do as follows:

- Be sure that there are no bag pieces into the sealing area
- Restore the sealing pressure if modified (see par. 5.5) and reconnect the motor to the transmission
- Remount the ink ribbon case
- Close the upper cover (n.1-pict.4.1)and screw the two screws (n.2-pict .4.1)
- Close the front cover (n.4-pict.4.1) and tighten fully grasped the 2 screws (n.5-pict.4.1)

- Plug the power cord (n.3-pict 1.1)

Now the machine is ready to restart.

4.8 Pouches expulsion

If there is activated an alarm that blocks the transport of the pouches into the machine, holding down the key **Up** the motor of the sealing machine will start for their expulsion; releasing the button the motor will stop.

5. MAINTENANCE

THE MAINTENANCE OF THE SEALER MUST BE MADE ONLY BY QUALIFIED TECHNICIANS, WHO MUST HAVE READ THE INSTRUCTIONS IN THIS MANUAL.

BEFORE ANY OPERATION, TURN OFF THE MACHINES WILL TAKE THE SWITCH (n.3-fig.1.1) BY POSITION O (OFF) AND DISCONNECT THE POWER CORD (n.2-pict.1.1).

IF THE SEALER HAD BEEN OFF TO LITTLE TIME, TO AVOID BURNS NOT TOUCH SEALBARS (n.2-pict.5.14).

5.1 Opening the machine

Turning off the luminous green general switch (n.3-pict.1.1) **in position " O " (switch off)** ***and unplug the power cord form the main supply (n.2-pict.1.1)***

5.1.1 Upper cover

To access the internal components need to open the cover (n.1-pict.4.1):

- Loosen the 2 screws (n.2-pict.4.1) screws (n.2-pict.4.1) will be bolted to the machine frame (n.3-pict.4.1).
- Slowly turn the machine cover (n..1-pict.4.1) to its full opening

5.1.2 Front cover

To remove the front cover (n.4-pict.4.1) needs unscrew the 2 screws (n.5-pict.4.1) from the machine frame

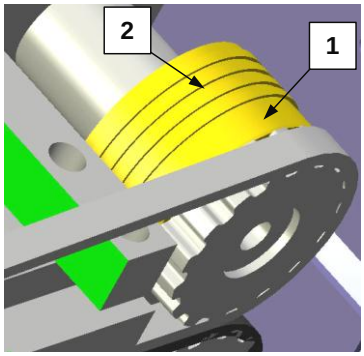
5.2 Main previous maintenance rules

PRESSURE WHEEL

Check periodically the pressure wheel (n.1-pict.5.2) grooves (n.2-pict.5.2) in order to make sure that they are clean without any rest of pouches; on the contrary, clean

them with a soft band or with a small plastic or wooden stick.

Do not use any metal objects, which could damage irreparably it.



1 Pressure wheel
2 Pressure wheel grooves

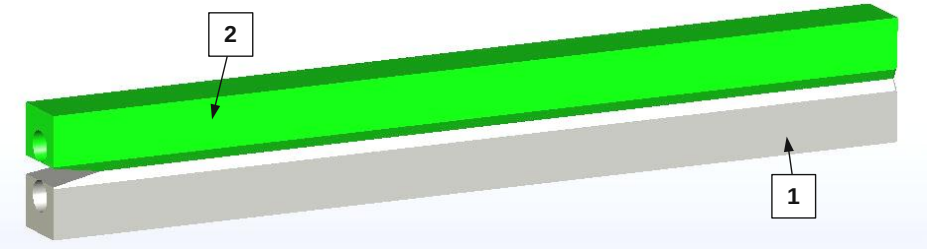
pict.5.2

SEALING JAWS

Check periodically that the surfaces (in PTFE made) of the sealing jaws (n.1 and n.2-pict.5.3) in contact with the pouches are clean without any rest of pouches; on the contrary, clean them with a soft band or with a small plastic or wooden stick.

Do not use any metal objects, which could damage irreparably them

To access to the sealing jaws see par.5.8



pict.5.3

1 Lower sealing jaws
2 Upper sealing jaws

PRINTING UNIT

Keep clean the wire print head (n.2-pict.5.21) and the surface of the counter print roller (n.2-pict.5.20), to avoid the rest of ink.

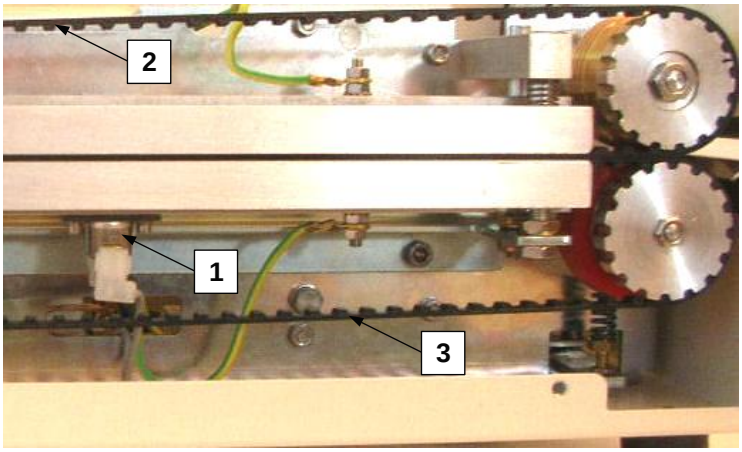
TO AVOID ANY DAMAGE ON THE WIRE PRINT HEAD, DO NOT USE THE MACHINE WITHOUT INSERTING THE INK CARTRIDGE.

CONVEYOR BELTS

We suggest to put a thin layer of silicone grease on the conveyor belts, in order to facilitate the sliding in the guide rails and pulleys.
Keep the straps "dry" or non-lubricated, could cause friction and squeaks during operation of the machine.

WARNING: Do not use too much grease in order to avoid to leave it on the pouches to be sealed. We suggest a quantity equivalent to a "grain of rice."

5.3 Electrical and thermoelectrical protections



1 Safety thermostat
2 Upper transport belt
3 Lower transport belt

pict.5.4

5.3.1 Thermic protection through thermostat (n.1-pict.5.4), which intervenes if there is a lack on the PLC temperature electronic control.

Its intervention will prevent from any danger of overheating, by stopping the machine.

If you do not switch off the machine through the main green luminous switch (n.3-pict.1.1), after the stopping of the machine through the thermostat (n.1-pict.5.4), the sealer will restart as soon as the temperature lowers till a value under the intervention one.

In this case, stop the machine and contact the Manufacturer.

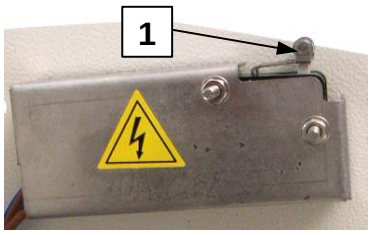
5.3.2 Thermal protection by software

Using a temperature probe, located on the board, is measured the temperature inside the machine; when it reaches 60°C, the software stops the machine and stops the heating. The cause of the overheating could be caused by a fault in the cooling fan or when the machine is placed in a too hot environment.

5.3.3 Electrical protection by microswtiches (n.1-pict.5.5), which interrupt the electrical circuit of the machine when you open the upper cover.

In the electrical diagram of the machine, the microswitches are placed immediately downstream of the line fuses.
With the machine switched on (see par.2.4), where careless the upper cover was open, the microswitches operate causing the shutdown of the machine and of the general green main switch (n.3-pict.1.1). Closing the cover, the microswitches will be actuated and the machine restarts.

The microswitches are a further protection for the operator in replacing the ink cartridge (see par.4.6), this **operation should always be done off the machine and unplugging the power cord.**



pict.5.5

1 Safety microswitches

5.3.2 Line fuses and main board fuse

The machine has 2 line fuses (see pict.5.17)

The board of the machine is equipped with a fuse 5 x 20 - 3.15 AT (F3-fig.5.16)

5.4 Replacement of the sealing jaws temperature probe

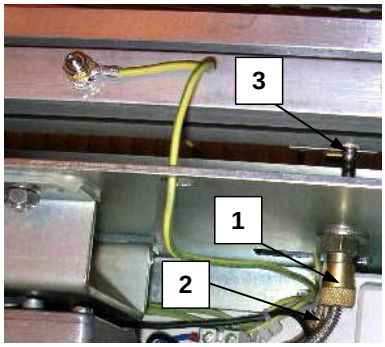
The probe measuring the sealing jaws temperature is a thermocouple type J and does not need any maintenance

For the replacement:

1. open the upper cover of the machine, following the instructions par.5.1.
2. disconnect the cable of the probe (see cap.6-electrical diagram) from the main board
3. disengage the probe mount, turning the locknut (n.1-pict.5.6)
4. take out the sensible terminal of the probe (n.3-pict.5.6) from the lower sealing jaw
5. take out the cable (n.2-pict.5.6) from the locknut and remove the probe from the machine
6. replace it with a new one

during the mounting operation of the new probe strew the sensible terminal with conductor paste

7. close upper cover of the machine



1 Ring temperature probe
2 Wire temperature probe
3 Terminal temperature probe

pict.5.6

5.5 Sealing pressure

With the machine on, using the data on the display (see par.3.2) you can check the value of the sealing force: in working conditions and with motor stopped, the strength of the seal must be close to the preset value equal to 85N.

5.5.1 Sealing pressure adjustment

The sealing pressure is already set by the manufacturer according with all materials in normal use.

Should you need a pressure increase/decrease for special purposes, turn the regulation nut do as follows:

1. open the frontal cover as described in par.5.1.
2. using a key, turn anticlockwise the nut (n.3-pict.5.7) in order to make it free to rotate.
3. using a key, turn the screw head pressure (n.2-pict.5.7):
   - Rotating clockwise pressure decrease
   - Rotating anticlockwise pressure increase
4. Keep the head screw (n.2-pict.5.7) stop, turn clockwise the nut (n.3-pict.5.7) and lock it
5. Close the frontal cover of the machine

Any pressure increase must be limited to not damage the counter wheel ring (n.3-pict.5.7) and the motor .

5.5.2 Replacement pressure spring

If you need to replace the pressure spring (n.1-pict.5.7), do as follows:

1) open the frontal cover as described in par.5.1.

2) using a key, turn anticlockwise the nut (n.2-pict.5.7) in order to make it free to rotate.

3) using a key, rotate clockwise the screw head pressure (n.3-pict.5.7) in order to make it free the spring pressure (n.1-pict.5.7)

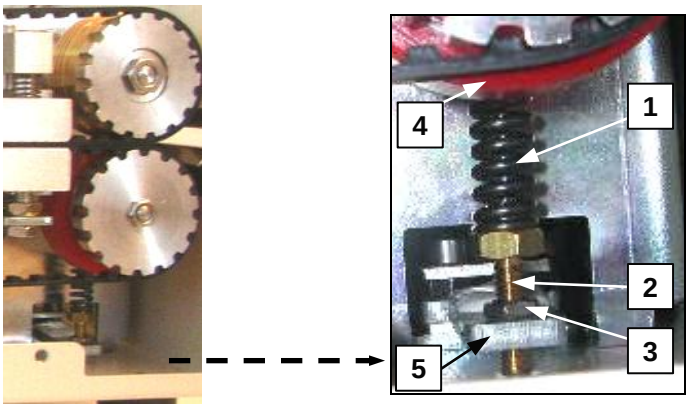
Be careful not to damage the load cell

4) remove the spring pressure and replace it by new.

5) using a key, turn the screw pressure (n.2-pict.5.7) to obtain a sealing force (see par.3.1.4) between 85N and 88N.

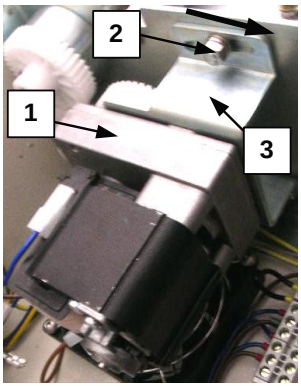
6) lock nut (n.3-pict.5.7) and close the frontal cover.

The sealing force must take a value between 85N and 88N.



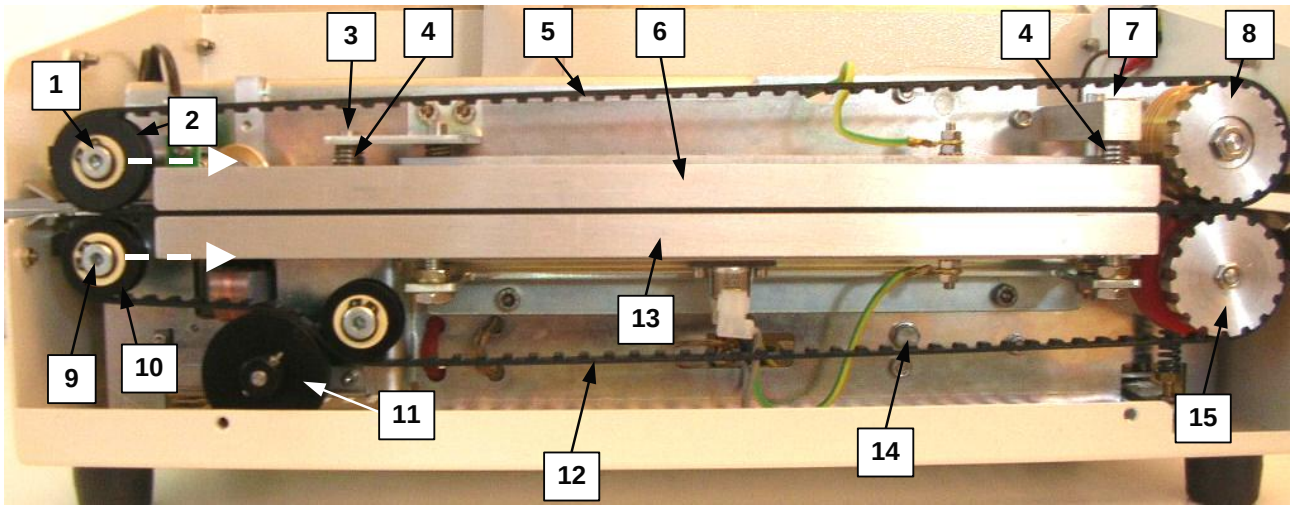
1 Pressure spring
2 Screw pressure
3 Nut
4 Counter wheel
5 Load cell

pict.5.7



1 *Motoreducer*
2 *Upper screw Locking motoreducer*
3 *Support motoreducer*

pict.5.8



pict.5.9

1 *Pin upper pulley*
2 *Upper pulley*
3 *Plug upper bar*
4 *Transport bar spring*
5 *Upper transport belt*
6 *Upper transport bar*
7 *Pin upper pulley*
8 *Upper motor pulley*
9 *Pin lower pulley*
10 *Lower pulley*
11 *Print pulley*
12 *Lower transport belt*
13 *Lower transport bar*
14 *Lower screw locking motoreducer*
15 *Lower motor pulley*

5.6 Replacement of the transport belts

The transport belts do not need any previous maintenance.
Their replacement is suggested only in case the teeth or the cover, which are in contact with the pouches, are worn out.

Extract the ink ribbon case

Act as follows:

- open the upper cover and the frontal cover following the instructions to the par.5.1
- discharge the sealing pressure (see par.5.5)

- After loosening the upper screw lock (n.2-pict.5.8) and the screw rotation (n.14-pict.5.9), disconnect the motoreducer unit (n.1-pict.5.8) by rotating in the direction of the arrow the arrow fig.5.8

- disengage the motor reducer (n.1-pict.5.9) turning it anticlockwise (see arrow in pict.5.7)

A. TAKE OUT THE UPPER BELT TRASPORT

- remove the upper transport jaw (n.6-pict.5.9) unscrewing the two guide pins (n.3-pict.5.9 and n.7-pict.5.9)

 *Be careful not to loose the spring pressure (n.4-pict.5.9)*

- unscrewing the lock screw (n.1-pict.5.9) of the *upper pulley pivot.*

- move the upper conduct pulley (n.2-pict.5.9), according to the arrow direction of pict.5.9

- take out the upper transport belt (n.5-pict.5.9) from the upper motor pulley (n.8-pict.5.9) with a low pressure towards the outside

B. TAKE OUT THE LOWER BELT TRASPORT

- unscrewing the lock screw (n.9-pict.5.9) of the upper conduct pulley (n.10-pict.5.9)

- move the conduct motor pulley (n.10-pict.5.9), according to the arrow direction of pict.5.9

- take out the lower transport belt (n.12-pict.5.9) from the lower motor pulley (n.15-pict.5.9) with a low pressure towards outside

C. How to mount the lower trasport belt

- Insert the lower transport belt (n.12-pict.5.9) first of all on the lower motor pulley than on the lower conduct pulley (n.10-pict.5.9)

- Stretch the lower transport belt (n.10-pict.5.9) and fixing the pivot lower conduct pulley (n.9-pict.5.9) with the relative screw

 *Verify the correct insertion of the lower belt in the pulley by turning slowly in the lower motor pulley*

 Correct tensioning when the belt has small vertical oscillations during the transport

D. How to mount the upper trasport belt

- Insert the upper transport belt (n.5-pict.5.9) first of all on the upper motor pulley (n.2-pict.5.9), then on the upper conduct pulley (n.2-pict.5.9)

- Stretch the upper trasport belt and fixing the lower pivot lower conduct pulley (n.1-pict.5.9) with the relative screw

Correct tensioning when the belt has small vertical oscillations during the transport

Verify the correct upper belt fitting up on the pulleys, turning the upper motor pulley

E. RESTORE THE MACHINE

- remount the upper transport jaw (n.6-pict.5.9) screwing the two guide pins (n.3 and n.7-pict.5.9)

- restore the correct sealing pressure (see par.5.5)

- reposition in its correct way the motoreducer (n.1-pict.5.8)

- remount the front cover and the upper cover.

5.7 Replacement of the heating element

Act as follows:

- open the upper cover and the frontal cover following the instructions as described in par.5.1

1. EXTRACTION OF THE UPPER SEALING JAW

- remove the upper transport jaw (n.6-pict.5.9) unscrewing the two guide pins (n.3-pict.5.9 and n.7-pict.5.9)

Be careful not to loose the two pressure springs (n.4-pict.5.9)

- disconnect the two cable edges of the upper heating element from their terminal bloc (see electric scheme cap.6)

- unscrew the locknut of the ground cable (n.2-pict.5.12)

- unscrew the nut n.3-pict.5.12)

- unscrew the no-head screw (n.1-pict.5.12) of the heating element

- unscrew the two guide pins (n.1 and n.4-pict.5.14)

- remove from the machine the assemby jaws+heating element (n.2-pict.5.14)

2. REPLACEMENT OF THE UPPER HEATING ELEMENT

- insert the new heating element in the upper sealing jaw in such a way that it is completely contained into the jaw seat.

  During the remounting operations do not exceed with the tightening, especially in the lock no-head screw *of the heating element*

- remount everything by following the reverse procedure

3. REPLACEMENT OF THE LOWER HEATING ELEMENT

- Extract the upper sealing jaw (see point 1)

- disengage the probe mount, turning the locknut (n.3-pict.5.14), and remove the probe

- disconnect the cable edges of the heating elements from their terminal bloc

- disconnect the two terminal (n.3-pict.5.113) edge of the safety thermostat (n.4-pict.5.10)

- unscrew the locknut (n.2-pict.5.13) of the lower ground cable (n.4-pict.5.13)

- unscrew the nut n.1-pict.5.13

- unscrew the no-head screw (n.3-pict.5.13) of the heating element

- unscrew the lower locknuts (n.2-pict.5.10) securing the lower sealing jaw the traverse of the machine and remove the assembly heating element+jaw

  Never loosen the register nuts (n.3-pict.5.10)

- insert the new heating element in the sealing jaw in such a way that it is completely contained into the jaw seat and lock it with the the no-head screw (n.3-pict.5.12)

  During the remounting operations do not exceed with the tightening, especially in the lock no-head screw of the heating element

- remount everything by following the reverse procedure

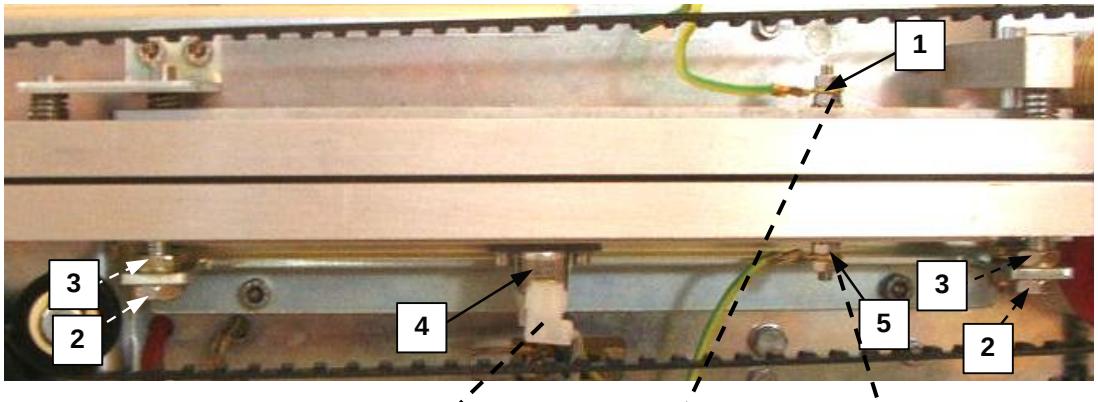
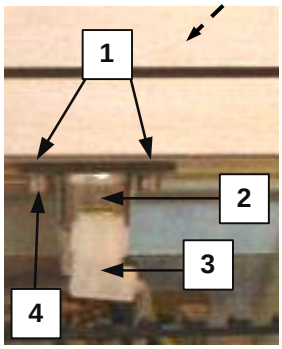


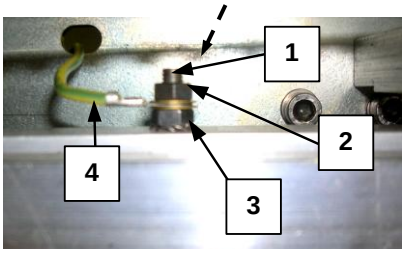
fig.5.10

1 *Screw of the upper ground cable*
2 *Lower locknut*
3 *Upper adjusting nut*
4 *Safety thermostat*
5 *Screw of the lower ground cable*



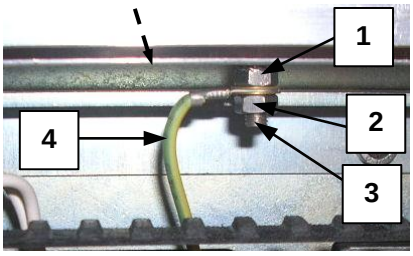
pict.5.11 *(pos.4-pict.5.10)*

1 *Spacer washers*
2 *Safety thermostat*
3 *Terminals thermostat cable*
4 *Screw lock thermostat*



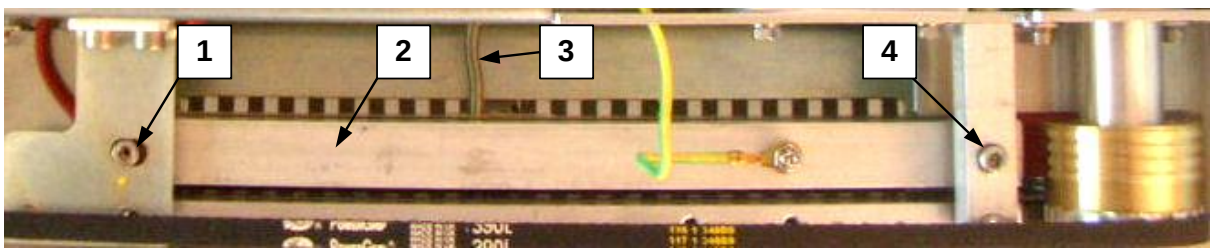
pict.5.12 *(pos.1-pict.5.10)*

1 *No-head screw*
2 *Nut*
3 *Nut*
4 *Upper ground cable*



pict.5.13 *(pos.5-fpict.5.10)*

1 *Nut*
2 *Nut*
3 *No-head*
4 *Lower ground cable*



pict.5.14

1 *Pin of the upper sealing jaw*
2 *upper sealing jaw*
3 *Cable of the temperature probe*
4 *Pin of the upper sealing jaw*
5 *Infeed photocell*
6 *Main board*

5.8 Replacement of the sealing jaws

The replacement of the sealing jaws is necessary only in case of worn out of the surface coating.

For the replacement procedure act as described in the par.5.7

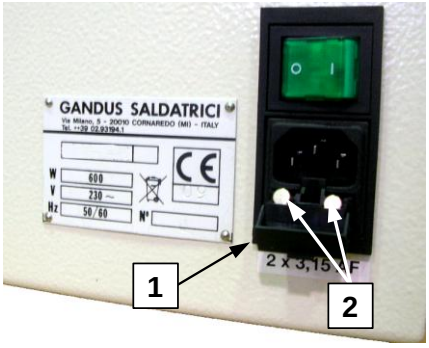
- Do the same operations described in paragraph 5.7 without disconnecting the cables of the the terminal heating element.
-
- Remove the protection thermostat (n.4-pict.5.10) from the lower sealing jaw.

When you remount the thermostat, be sure to remount the spacer washers (n.1-pict.5.1) placed between the plate and the lower sealing jaw.

5.9 Replacement of the line fuses

Turning off the luminous green general switch (n.3-pict.1.1) and unplug it form the main supply (n.2-pict.1.1)

- open the fuse box drawer (n.1-pict.5.15) as shown
- pull out the fuses to be replaced (n.2-pict.5.15), eventually helping you with a suitable screw-driver
- inseret the new fuses and close the fuse box pushing the drawer



1 Line fuses
2 Fuse box drawer

fig.5.15

5.10 Replacement of the battery

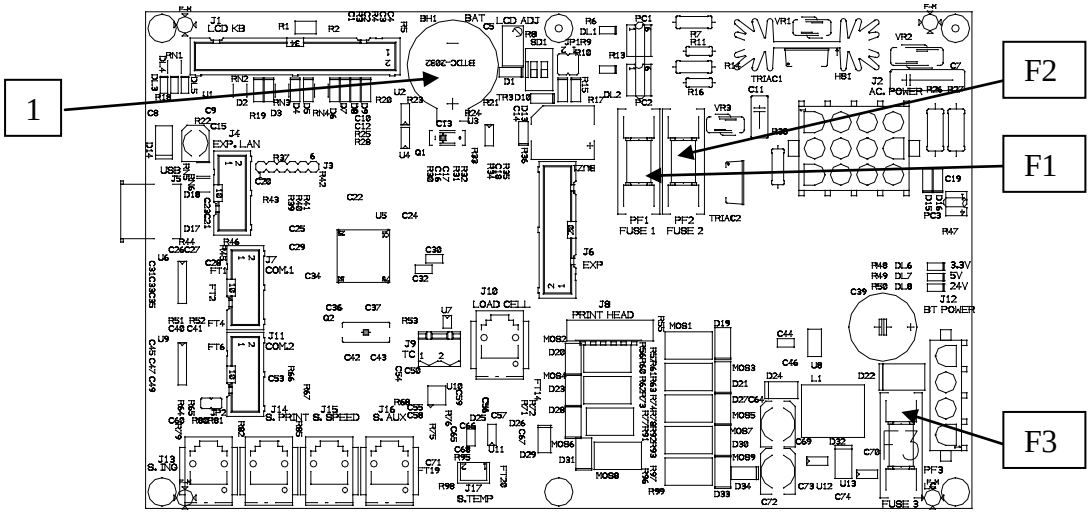
When the display shows the relative message at the end of the BATTERY TEST, it is

necessary to replace it.

The keeping data battery has to be replaced with the machine switched off. This is important in order to avoid any damages on the main board (pict. 5.16)

Do as follows:

- open the upper cover and the front cover following as described in par.5.1
- remove the battery
- insert the new battery keeping the symbol “+” upwards
- switch on the machine and wait for the positive result of the BATTERY TEST
- Set current date and time (see par. 3.3.7)



pict. 5.16

1 *battery*
F1 motor fuse
F2 heating element fuse
F3 power line fuse

5.11 Replacement of the motoreducer

If you need to replace the motoreducer (n.1-pict.5.8) do as following:

- open the upper cover and the frontal cover of the machine as described in par.5.1

- disconnect the 2 motor power cable terminals and the motor ground cable terminal

- Unscrew the lower screw (n.14-pict.5.9) and the upper screw (n.2-pict.5.8) locking the motor

- Remove the motor unit (n.1-pict.5.8) with its support (n.3-fig.5.8) from the machine and

replace everything with a new

- Put the new motor unit-motor support paying attention to the engaging between the teeth of gears

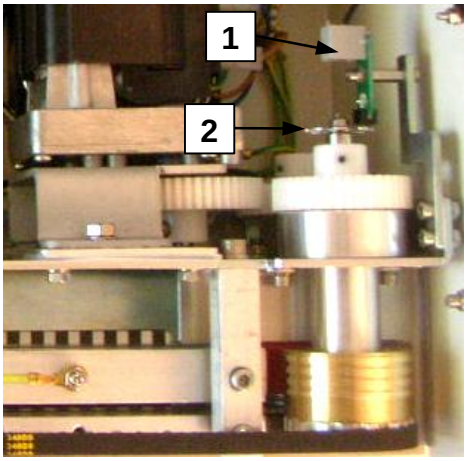
- Connect the terminals of the motor power cables and those of the ground cable

- Close the upper cover and the frontal cover of the machine

5.12 Speed control

The speed control unit is realized with the photocell n.1-pict.5.17 reading the rotation of the camb n.2-pict.5.17

The low speed error message appears if the photocell n.1-fig.5.17 has disconnected, faulty or not properly positioned, then placed not perpendicular and at a distance of approximately 1-2 mm from the cam.



pict. 5.17

1 *speed control photocell*
2 speed cam

5.13 Replacement of the load cell

If you need to replace the load cell (n.5-pict.5.19) do as following:

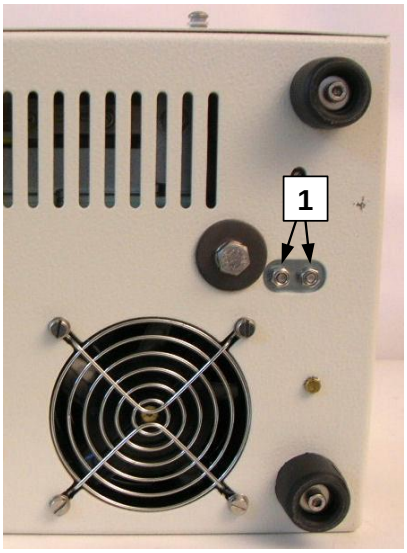
- open front cover of the machine as described in par.5.1

- using a key, turn anticlockwise the nut (n.2-pict.5.19) in order to make it free to rotate.

- using a key, rotate clockwise the screw head pressure (n.3-pict.5.19) in order to make free the spring pressure (n.1-pict.5.19)

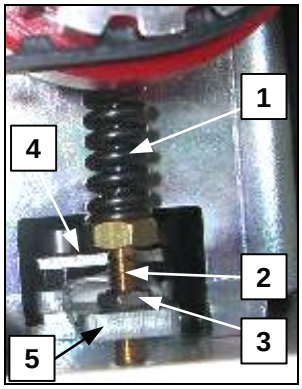
- remove the spring pressure (n.1-pict.5.19)

- unscrew the screw pressure (n.2-pict.5.19) and remove it from the load cell (n.5-pict.5.19)
- unscrew the two nuts (n.1-pict.5.18) at the bottom of the machine frame; these nuts lock the load cell at the frame.
- open the upper cover and the frontal cover of the machine as described in par.5.1
- unscrew the lower screw (n.14-pict.5.9) and the upper screw (n.2-pict.5.8) locking the motor
- push the motor unit (n.1 and n.3-pict.5.8) in order to have access to the load cell (n.5-pict.5.7)
- remove the faulty load cell with spacer, the two screws and two nuts (n.4-pict.5.19)
- remove from the load cell fails the spacer, the two screws and two nuts attached to it (n.4-pict.5.19) and mount them in the new one
- put the new load cell
- put the new motor unit-motor support paying attention to the engaging between the teeth of gears
- put the pressure screw (n.2-pict.5.19) and the spring pressure (n.1-pict.5.19) in order to obtain a sealing force (see par.3.1.4) between **85N** and **88N**.
- close the upper cover and the frontal cover of the machine



pict.5.18

1 Nut for load cell



pict.5.19

1 Pressure spring
2 Screw pressure
3 Nut
4 Spacer, screws and nuts for load cell
5 Load cell

5.14 Infeed photocell calibration

The motor of the sealer should be running even when no pouches are inserted into or, on the contrary, should not start; in these cases it is necessary to do the infeed photocell calibration (n.5-fig.5.14).

To do this calibration, proceed as follows:

- with the closed cover, during the sealer switch on phase, press for approx. 3 seconds the key **Down**: the display will show alternatively the two here-below flashing screens:

where 329 is the current value of the photocell reading.

If the reading value is at 0 the photocell should be disconnected or lacked

- insert a pouch in the infeed guide and press the key **Set**: the display will show alternatively the two here-below flashing screens:

When the photocell reads the presence of the pouch, the current reading value has to decrease (see the ex. from 329 to 39)

- take out the pouch and press the key **Set**: the sealer will switch on.

For correct operation, the value of the photocell reading with pouch and the one without pouch must differentiate at least 100 units.

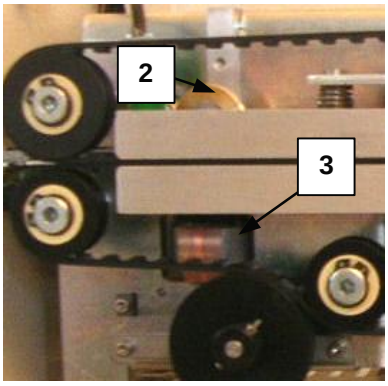
5.15 Printing unit

The on board printer needs some simple but necessary maintenance operations.

It is composed by the following components :

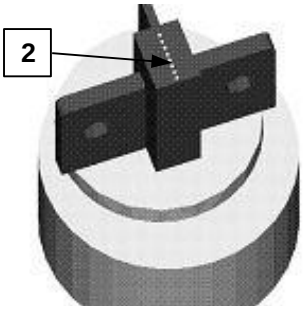
- printer head (n.1-pict.5.20)

- ink-cartridge (n.7-pict.4.4)



pict.5.20

2 Counter print roller
3 Printing head



pict.5.21

2 Print wire zone

PRINTING HEAD

Keep clean the print wire zone (n.2-pict.5.21) and the surface of the counter print roller (n.2-pict.5.21), to avoid the rest of ink.

Do as follows:

- open the upper cover and the front cover following as described in par.5.1
- extraction of the ink ribbon case (see par.4.6.2)
- use a cotton wad with alcohol and clean the print wire zone (n.1-pict.5.21) and the surface of the counter print roller (n.2-pict.5.20)
- check the counteroll check the counter print roller rotate freely on its pivot

Do not change the gap between the printing wheel and the printing head, just pre-adjusted for the normal used pouches

TO AVOID ANY DAMAGE ON THE WIRE PRINT HEAD, DO NOT USE THE MACHINE WITHOUT INSERTING THE INK CARTRIDGE.

If the cleaning operation is done after an intensive use of the machine, be sure that the printing head is not too hot, to avoid any problems in case of contact.

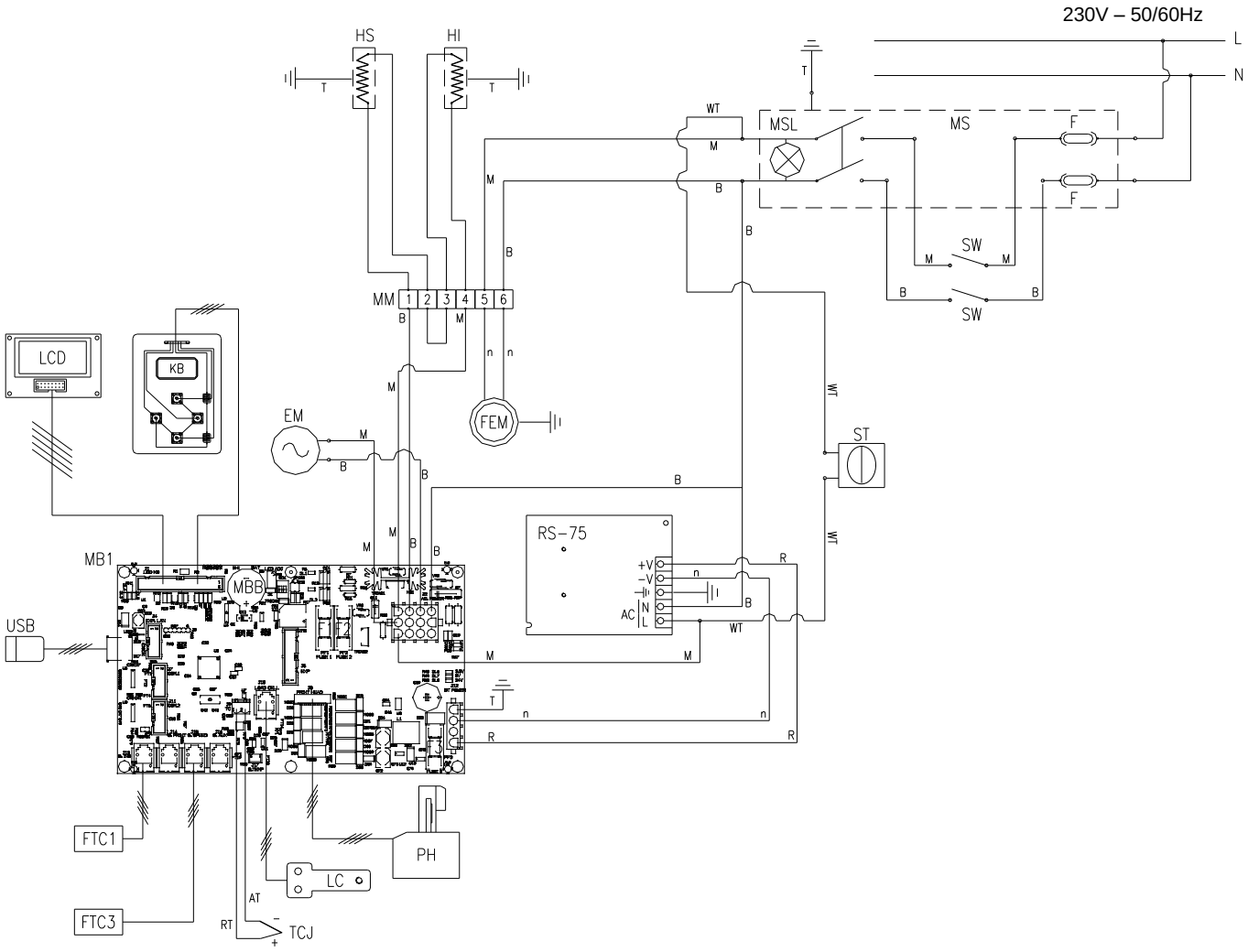
INK CARTRIDGE

If the use of the sealer is intensive, periodically verify :

- there is not a ink surplus accumulation on the ink-ribbon visibile part
- the ink-ribbon is not worn out (tear and/or fringe)
- the ink-ribbon is correctly driven by the machine transmission

6. ELECTRIC SCHEME

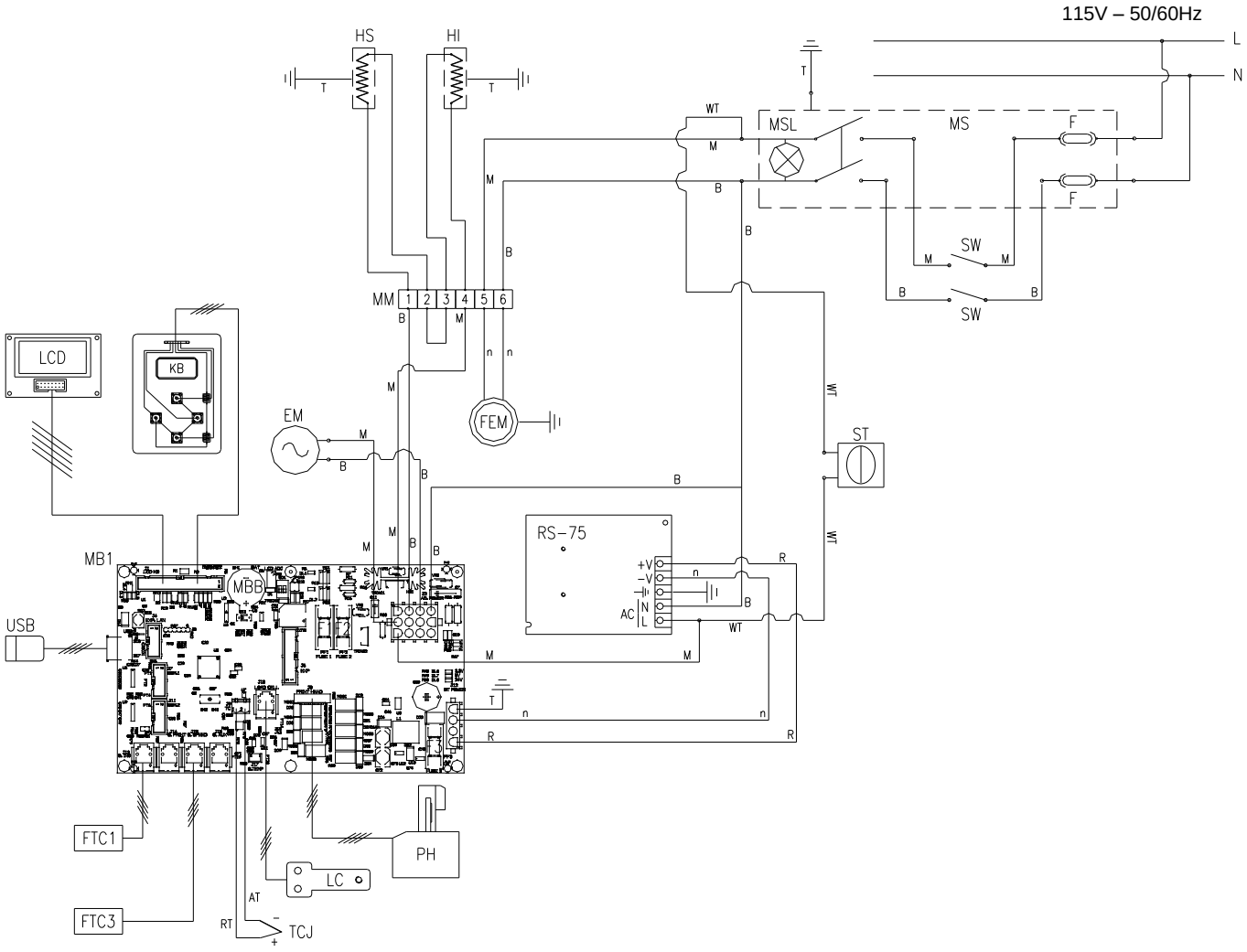
6.1 Electric scheme 230V – 50/60Hz



Legend

AT	blue color thermocouple cable
B	blue color cable
EM	motoreducer 230Vac
F	line fuses 3,15AF
FEM	fan - 230Vac
F1	motor fuse – 1AT
F2	heating element fuse – 3,15AF
F3	power line fuse - 3,15AT
FTC1	infeed photocell
FTC2	print photocell
FTC3	control speed photocell
HI	lower heating element 200W 110Vac
HS	upper heating element 200W 110Vac
LC	load cell
LCD	LCD display board
KB	command keyboard
MB1	main board
MBB	battery main board
MM	terminal board
MS	main switch
MSL	main switch lamp
n	black color cable
PH	printing head - 9 wire
R	red color cable
RS-75	power supply 24 Vdc
RT	red color thermocouple cable
ST	safety thermostat
SW	microswitch
T	ground cable
TCJ	thermocouple J
USB	USB port
W	white cable
WT	safety thermostat cable

6.1 Electric scheme 115V –50/60Hz



Legend

AT	blue color thermocouple cable
B	blue color cable
EM	motoreducer 115Vac
F	line fuses 6,3AF
FEM	fan - 115Vac
F1	motor fuse – 3,15AT
F2	heating element fuse – 6,3AF
F3	power line fuse - 3,15AT
FTC1	infeed photocell
FTC2	print photocell
FTC3	control speed photocell
HI	lower heating element 250W 55Vac
HS	upper heating element 250W 55Vac
LC	load cell
LCD	LCD display board
KB	command keyboard
MB1	main board
MBB	battery main board
MM	terminal board
MS	main switch
MSL	main switch lamp
n	black color cable
PH	printing head - 9 wire
R	red color cable
RS-75	power supply 24 Vdc
RT	red color thermocouple cable
ST	safety thermostat
SW	microswitch
T	ground cable
TCJ	thermocouple J
USB	USB port
W	white cable
WT	safety thermostat cable

7. WARRANTY TERMS AND SPARE PARTS

7.1 Warranty terms

The 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 *Gima S.p.a.*, 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 work-hour and transportation fee.

Gima S.p.a. declines every responsibility for eventual damages to the machine, in case of deliveries made without the original packing

7.2 Spare parts 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

8. PROBLEMS & SOLUTIONS

Here below you will find the possible troubles that can occur during the normal functioning of the sealer and for each one the possible solution.

In case you cannot solve the troubles with these instructions, put in contact with our dealer or with us directly.

8.1 Power supply

- *The sealer does not function and the main green luminous switch (n.3-pict.1.1) does not light.*

  a) The fuses (n.2-pict.5.15) are burnt out: replace them with new one of the same type and class

1 Fuses box
2 Fuses

fig.6.1

  ! *If they burn out again after the replacement, put in contact with the seller or manufacturer because it could be a short circuit of the electrical system in the machine*

  b) The power cord (n.2-pict.1.1) is not connected or interrupted: connect it again or replace it

- *The sealer does not function and the main green luminous switch (n°1 pict. 1.1) lights*.

  a) Verify that the main board is correctly powered: the led has to be lighted If it not happens, check the fuses on the board (see electrical diagram)

  b) The safety thermostat has intervened: turning the luminous green general switch (n.3-pict.1.1) and unplug it form the main supply (n.2-pict.1.1)

8.2 Sealing

- *The seal has some defects alongside the edges:*

  a) verify if the set sealing temperature value is suitable for the pouches to be sealed (see table par 4.1)

  b) wait for the stabilization of the sealing jaws temperature especially if you made a new temperature adjustment

- *The seal, even if done at the correct temperature, is not strong:*

  follow the instructions par. 4.3

- *The sealing jaws temperature remains at the ambiance temperature:*

  a) The common fuse actuators (F1) or heating element fuse (F2) (see cap.6) is interrupted: replace with same type and class

  b) Verify that the electrical heating element is not broken: broken or disconnected

- *The seal, at the beginning, shows a shrink of the plastic material:*

  a) check that the sealing path is free and clean. Verify that the pouch, if it is heavy or voluminous, does not find any obstacle in its in-feed

  b) verify that the internal or external pouch edges are clean and dry, before doing the seal

  c) check that the sealing jaws and the counter pressure are clean (see par.5.2)

  d) check if the sealing jaws are clean

8.3 Transport

- *The in-feed motor does not stop automatically after 10 sec. from the last sealed pouch:*

a) check the vertical alignment between the in-feed photocell transmitters (n.5-pict.5.14) and if they are clean. The alignment is correct if the led lights only when a pouch is inserted

  b) check that the linking phone cord is correctly inserted into the in-feed photocell plug and in the main board

  c) the in-feed area of the machine is exposed to excessive brightness of the environment; calibrate the in-feed photocell.

- *The in-feed motor does not transport:*

  a) The fuse (F1) (see cap.6) is damaged, replace it with same type and class

  b) the motor gears are worn out: replace the motor reducer

  c) check that the power linking " faston " to the motor reducer are correctly inserted

  d) verify that the led switches on (par.5.12) when a pouch is in-feeded; on the contrary put in contact with your dealer or directly with Gima S.p.a.

- *Pouches jam, at the exit:*

  a) Follows the instructions into the par. 2.6, 4.6.

8.4 Alarms

If an alarm message appears on the display of the machine, go to the paragraph 3.4 and follow the instructions about how to solve it.

8.5 Printer

- The print characters are not very marked on the welded envelope:

a) check the state of use of the printing ribbon: if necessary replace with new one

b) check that there are no excessive accumulations of ink in the print head area and the counter-mold roller

- The printing characters are too marked on the welded envelope:

a) The printing ribbon may be excessively inked. Replace it and perform some printing tests.

b) check the cleaning status of the printing area

- *The on-board electronic printer does not print on the envelope:*

a) the printer may be disabled:

b) the entrance area of the machine is exposed to excessive brightness of the environment; reposition the machine or protect the entrance area from light.

c) the printhead needles may be blocked in their seat by excess ink and / or paper dust. Perform cleaning

d) the print head is electrically interrupted. Check that the flat cable connector is correctly inserted in its main board housing (see wiring diagram)

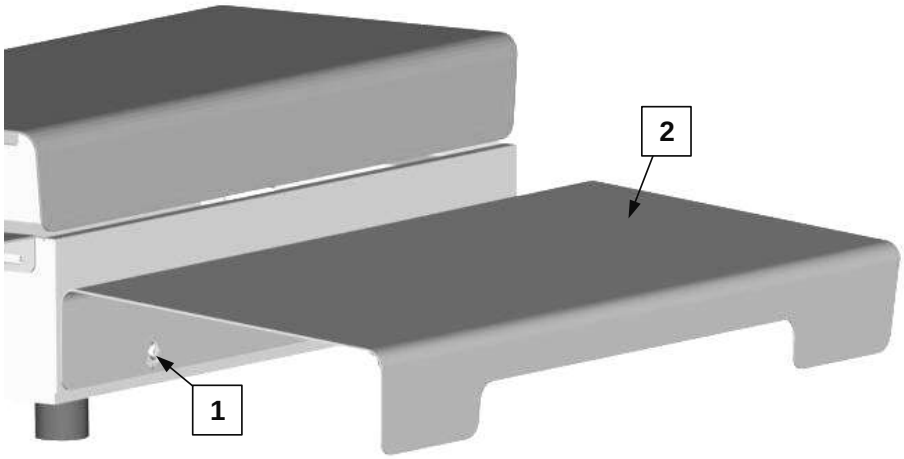
9. ACCESSORIES

9.1 Working plane

The working plane is an accessory, which makes easier the pouches sliding during sealing operation.

APPLICATION OF WORKING PLANE TO THE SEALER

To applicate the working plane to the sealing machine, it is necessary to introduce the cavity (n.1-pict.9.1) on the backside of the plane into the two screws on the front cover n.5-pict.4.1 of the sealing machine



pict.9.1

DICHIARAZIONE CE DI CONFORMITA' DELLA MACCHINA
EC DECLARATION OF CONFORMITY OF THE MACHINERY

Gandus Saldatrici S.r.l. socio unico
via Milano, 5 - 20010 Cornaredo (Mi), Italy

dichiara, sotto la sua responsabiltà, che la termosaldatrice per il confezionamento
declares, under its own responsability, that the sealing machine for packaging

GIMA D700

N° | | |

è conforme alle seguenti direttive:
is in conformity with the following directives:

DIRETTIVA MACCHINE 2006/42/CE
MACHINERY DIRECTIVE 2006/42/EC

le norme armonizzate di riferimento per la dichiarazione sono:
the relating harmonized rules for the declaration are:
EN ISO 12100 - EN ISO 13857 - EN 60204-1

DIRETTIVA EMC 2014/30/UE
EMC DIRECTIVE 2014/30/EU

le norme armonizzate di riferimento per la dichiarazione sono:
the relating harmonized rules for the declaration are:
EN 61000-3-2 - EN 61000-3-3 - EN 55014-1 - EN 55014-2

DIRETTIVA BASSA TENSIONE 2014/35/UE
***LOW VOLTAGE DIRECTIVE* 2014/35/EU**

la norma armonizzata di riferimento per la dichiarazione é:
the relating harmonized rule for the declaration is:
EN 60204-1

Persona autorizzata a redigere la dichiarazione di conformità e a costituire il fascicolo tecnico:
Person authorised to draw up the declaration and compile the technical file:

Giancarlo Guglielmini
(President)
c/o **Gandus Saldatrici S.r.l. socio unico**
via Milano, 5 - 20010 Cornaredo (Mi), Italy

gandus SALDATRICI PACKAGING MACHINES

gandus SALDATRICI PACKAGING MACHINES

Cornaredo (Mi), Italia : 16 Gennaio 2018
Cornaredo (Mi), Italy : *16th January 2018*

Fabbricante / Manufacturer / Constructeur / Hersteller

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