

GGM GASTRO

**CHAMBER VACUUM
PACKAGING MACHINE**

GGM24

GGM32

GGM42

GGM52

USE AND MAINTENANCE MANUAL
ORIGINAL INSTRUCTIONS



Warning!

This appliance is not suitable to be used by people (children included) with reduced physical or mental capabilities or with lack of experience and knowledge, otherwise they have been instructed by someone responsible of their safety.

Children must be controlled in order they do not play with the appliance.



DANGER - WARNING!

The sealing bar may reach high temperatures during and after the usage process. It is recommended to watch out and avoid direct contact until the cooling process is over.



DANGER - WARNING!

The machine is to be used in inner environments.



DANGER - WARNING!

**The device cannot be opened by the end user.
Should the power wire be damaged,
or should there be any electric repairs, they must be replaced by
the manufacturer, or by authorized personnel only, in order to avoid any risk.**



THE MACHINE IS SUPPLIED WITH GROUND PROTECTION WIRE.

The ground protection system is identified by the proper symbol.



The manufacturing company is therefore in no way responsible for the non-observance on the part of the user of the safety precautions listed in this handbook.

CHAPTER 1

IDENTIFICATION OF THE "USER MANUAL"

The instructions handbook is a document issued by the manufacturing company and is an integral part of the machine. This document is adequately identified for easy tracing and/or subsequent references.

All rights relating to the reproduction and disclosure of the information contained in this handbook and the documentation quoted and/or attached are reserved.

Aim of the document

This handbook contains the information necessary to the customer and assigned personnel for the correct installation, use and maintenance of the machine at good conditions and at maximum safety.

Safety precautions and manufacturer's responsibility limits.

Every operator-machine interaction relating to the intended use of the machine and its overall life cycle has been carefully and thoroughly analysed by the manufacturing company during the design phase, construction phase and the drafting of the instructions handbook.

It is nevertheless understood that experience, adequate training and "common sense" of the personnel operating on the machine are of primary importance. These requirements are therefore considered indispensable during all machine operating phases and consultation of this handbook. The non-observance of the safety precautions or specific warnings indicated in this handbook, the use of the machine by unauthorized personnel, violate all safety standards regarding the design, construction, and intended use of the machine and relieve the manufacturer from every liability in the case of damage to persons or property.

Regulatory references

The following definitions are used according to:

- Attachment "I" to the directive 89/392/CEE and subsequent issues;
- "Machines Directive" 2006/42/CE replacing 98/37/CE.

Waste of the machine after its usage cycle

Electric and electronic appliances contain dangerous substances with effects potentially harmful for health people and environment. It is recommended to waste it properly, it means in the authorized garbage dump.



Machine manufacturer identification data and positioning of the "CE MARKING" plate.

Identification of the manufacturing company as producer of the machine takes place in accordance with the legislation in force by means of the following documents:

- Declaration of conformity;
- (CE marking;)
- Instructions Handbook
- A special plate applied to the machine is marked permanently with the following data concerning **CE MARKING**.

CHAPTER 2

HOW TO CONSULT AND USE THE INSTRUCTIONS HANDBOOK

This document is an integral part of the machine. Preserve a copy of this instructions handbook for the entire working life of the machine even if transferred or sold to third parties. Requests for further copies of this document must be made by means of purchase order addressed to the manufacturing company.

To maintain the instructions handbook in good conditions:

- Use the instructions handbook taking care not to damage its contents. In particular, do not leave the instructions handbook around during use and remember to return it to its proper place immediately after consultation.
- Do not remove, rip out or rewrite parts of the instructions handbook. Any changes required must be referred to and subsequently supplied by the manufacturing company.
- Keep the instructions handbook in a safe place, away from damp, heat and other environmental elements which could damage it.

Definitions

The following definitions are used according to the "Machine Directive" CEE 89/392 and subsequent issues:

- **Operator:** person or persons assigned to machine operation, adjustment, routine maintenance or cleaning
- **User:** body or person responsible for and/or owner of the machine.

CHAPTER 3

WARRANTY

The manufacturing company engages, for 12 (twelve) months from the date of shipment and direct delivery of the goods, to assure the customer or concessionaire the integrity and the good working of the components regarding the above mentioned machine.

All machine components normally subject to wear, that is to say components in which use causes a constant wear and tear, are not included in the warranty:

1. Electrical resistances – Teflon – Rubber gaskets – Chamber opening pistons – Sealing diaphragms – Air filters – Oil filters – Oil change – Pump blades
2. If the vacuum pump of a machine under warranty is sent to the manufacturing company because of aspiration problems and malfunction, the manufacturing company has the right to check whether any foreign bodies have been aspirated (liquids, solids, sauces, etc..). If this should be the case, the repair (materials and the labour) will be duly charged, since the problem is not due to manufacturing defects, but to customer negligence during use.
3. Possible problems linked to the electronic panel cards of the circuit will have to be examined by the manufacturing company before sending the part which has to be replaced under warranty. A sudden change in voltage, an electrical overfeeding, a disturbance in the external current network, could cause damages which are not to be attributed to the manufacturing company.
4. Possible problems with pneumatic, structural, mechanical parts will be duly solved as per warranty terms without any charge.

5. During the warranty period, for interventions under warranty, the replaced materials will not be charged, while the labour will be duly charged. During the warranty period, for interventions not included in the warranty for various reasons, both the materials replaced and the labour will be duly charged.
6. During the warranty period, should any external intervention of our technicians be requested, the travel costs (to and from) will be fully charged independently of the reason behind the intervention.
7. Any interventions on the machines are to be carried out at the manufacturer's premises both during the warranty period and after the warranty period; we point out that no transport costs (to and/or from) will be refunded.
8. The transport for any materials sent to the manufacturing company, both during the warranty period and after the warranty period, must compulsorily take place in ex works.
9. Any materials sent to the manufacturing company with transport charges will be automatically refused.
10. Any components considered defective (pump, electronic panel card, etc..) and mishandled by the customer during the warranty period will not be considered under warranty. The manufacturing company has the task of carrying out this function in a strict manner.



Do not remove the CE MARKING plate and/or replace it with a different one. Should the CE MARKING plate be accidentally damaged, detached from the machine or the manufacturer's seal removed, the customer must compulsorily and immediately inform the manufacturing company.

The plate is placed on the external side of the machine

User obligations

The user must inform the manufacturing company immediately of any safety system defect and/or malfunction and of any presumed danger encountered. It is strictly forbidden to the user and/or third parties (excluding duly authorized personnel of the manufacturing company) to make modifications of any kind or extent to the machine and its functions or to this technical publication. In case of malfunctions or danger due to the non-observance of the above, the manufacturing company cannot be held responsible for the consequences. It is advisable to request any

modifications directly to the manufacturing company.

CHAPTER 4

GENERAL SAFETY PRECAUTIONS

It is recommended to comply strictly with the following safety precautions:

1. never touch the metal parts of the machine with wet or damp hands;
2. do not pull the supply cable or the machine itself to disconnect the plug from the current outlet (ref. page 1);
3. children or unqualified personnel are not allowed to use the machine without supervision;
4. electrical safety of the machine is ensured by its correct connection to an effective earthing as in accordance with the electrical safety standards in force; it is necessary to check this fundamental requirement and, if in doubt, ask for a thorough check by professionally qualified personnel. The manufacturing company cannot be held responsible for possible damages caused by the lack of a plant earthing;
5. in the case of a possible damage to the safety earthing, disconnect the machine in order to prevent its activation;
6. Always use safety fuses comply with the safety standards in force , the correct value and with suitable mechanical properties ;
7. avoid the use of repaired fuses and the creation of short circuit between the terminals present on the fuse holder
8. the user of the machine must not replace its supply cable; in the case the supply cable is damaged or needs replacing, refer only to the manufacturing company of the machine for its replacement;
9. keep the cable away from hot parts;
10. always switch off and disconnect the machine from the power supply before beginning any general cleaning or washing operation;

11. clean machine coating, panels and controls using soft and dry cloths, or cloths slightly soaked in mild alcohol or detergent solution.

Obligations in the case of malfunction and/or potential danger

Operators are obliged to signal any deficiency and/or potentially dangerous situation immediately to a direct superior..



Image 5.1. Pump oil level indicators



Before connecting the vacuum packaging machine, make sure that the plate data corresponds with the supply mains data UL.

CHAPTER 5

INSTALLATION

Remove the packaging and check that the machine is undamaged. In particular, look for any possible damages caused by transport. If in doubt, do not use the machine and refer to the manufacturing company.

Place

Position the machine horizontally in a place with low humidity percentage and far from heat sources.



Do not install the machine in an explosive atmosphere.



Disconnect the power supply plug before starting any checking operation which may require parts.

Controls and inspections

Before starting the machine, check the oil level through the sight glass located on the motor/pump. (Fig. 5.1). In order to access the pump, unscrew the back panel of the machine and remove it.

After level checking and casing re-installation, connect the plug to a current outlet. If it is not possible to connect the plug and the outlet, the outlet must be replaced with the correct one by professionally qualified personnel who should also check that the outlet cable section is correct for machine power consumption.

It is not advisable to use adapters, multiple outlets and/or extensions. If this should be the case, use only simple or multiple adapters and extensions in accordance with the safety standards in force. Do not exceed current capacity limit and maximum power level marked on the multiple adapter.

Particular warnings

1. It is recommended to reset the machine after every usage.
2. When using a tri-phase power supply, pay attention to the motor rotation direction indicated by an adhesive label (fig. 5.2). Should the rotation be on the opposite direction (a loud metal noise will be heard out and the chamber won't get closed), invert two of the three supply wires on the plug.
3. By a standard usage of the machine, no particular cleaning operation of the chamber machine is required. Should it be needed (i.e. bags inner product pours out of the bag), it is recommended to use a rag soaked with alcohol.



Image 5.2. Adhesive labels indicating the rotation direction.



The earthing (yellow-green) must not be moved or disconnected. In the case of power 3P + N ie in the presence of the neutral wire (blue) must not be moved or dissected.



Before cleaning the machine, disconnect the plug.

CHAPTER 6

USAGE OF THE PACKAGING MACHINE

Vacuum packaging

1. Connect the bipolar plug, if 230 V, or the three-pole plug, if 380 V, to the current outlet
2. Press the line main switch and the ON/OFF button thus connecting the electric circuit which supplies the modular card for the automatic cycle phases.
3. Set the vacuum time (or percentage) required, the sealing time and the gas injection time (if the machine is equipped with such a system).
4. Position the bag (or bags) inside the vacuum chamber; put the bag opening perfectly flat on the sealing bar. Put the exceeding part of the bag, if any, in the fissure between the chamber and the sealing bar (image 6.1).
5. Two or three removable food polyethylene shelves are positioned inside the vacuum chamber to level the product thickness according to the sealing bar. The polyethylene shelves can be removed depending on necessity.
6. Lower the bell-lid and press adequately on it until it remains closed, thus permitting the work cycle to begin.
7. The different cycle phases are automatic and after a time preset by the manufacturer the bell-lid opens thus enabling the subsequent cycles to begin.

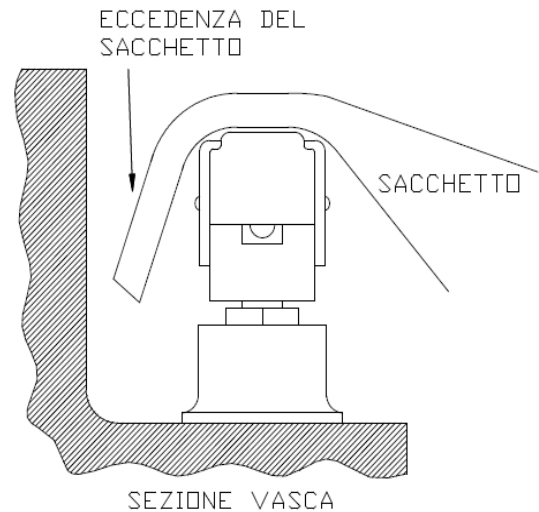


Image 6.1. Bag correct placement inside the chamber.

Vacuum-packaging with inert gas injection OPTIONAL (ref. tab 1)

1. Set the work cycle with inert gas injection on the control panel by pre-selecting the relative time.
2. Connect the hose coming from the gas cylinder to the hose connection positioned on the side/rear of the vacuum packaging machine by means of the relevant clamp, then set the gas cylinder gauge at a pressure value of 1 ATA.
3. Position the bag containing the product inside the vacuum chamber, fitting the gas nozzle inside the bag opening (image 6.2); make sure that there are no folds obstructing the gas flow.

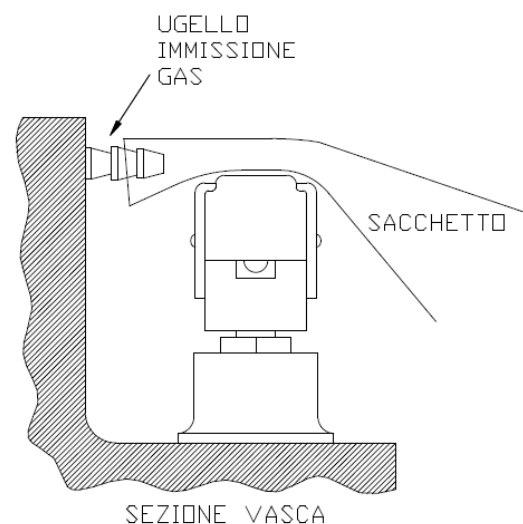


Image 6.2. Positioning of the bag with gas option active.

Vacuum packaging of liquid or semiliquid products

By means of the chamber vacuum packaging machines of our range it is possible to vacuum package liquid or semi-liquid products (soups, sauces, etc..) thus increasing their duration time and keeping hygiene and taste unaltered.

1. Vacuum cycles are set as described in the chapter Vacuum packaging.

2. The SOFT-VACUUM option allows the packaging of liquid products.
3. All the vacuum packages can be stored in a refrigerated cabin.

Tab 1. EXAMPLES OF PACKAGING WITH PROTECTIVE ATMOSPHERE

| PRODUCT | OXYGEN % (O2) | CARBON DIOXYDE % (CO2) | NITROGEN % (N2) |
|---|------------------|---------------------------|--------------------|
| Sliced salami | - | 20 | 80 |
| Roast meat | 80 | 20 | - |
| Beer/can drinks | - | 100 | |
| Biscuits and oven products | - | 100 | 100 |
| Coffee | - | 100 | 100 |
| Fresh meat | 70/80 | 30/20 | -/- |
| De hydrated meat and spices | - | - | 100 |
| Minced meat | - | - | 100 |
| Chocolate | - | 100 | - |
| Fresh cheese / Mozzarella | -/- | 20/- | 80/100 |
| Mature cheese / Cream / Butter /Margarine | - | - | 100 |
| Fresh salad / parsley | - | 50 | 50 |
| Yogurt / Puff pastry | - | 100 | - |
| Powdered milk | - | 30 | 70 |
| Baking powder | - | 100 | 100 |
| Apples | 2 | 1 | 97 |
| Sliced bacon | - | 35 | 65 |
| Sandwich loaf / Bread | - | 100 | - |
| French toast / Toasted bread | - | 80 | 20 |
| Pasta | - | - | 100 |
| Fresh pasta / tortellini / Lasagne | - | 70/100 | 30 |
| Potatoes / French fries / Snacks / Hop | - | 0 | 100 |
| Anchovies, sardines... | - | 60 | 40 |
| Fish | 30 | 40 | 30 |
| Pizza | - | 30 | 70 |
| Poultry | - | 75 | 25 |
| Tomatoes | 4 | 4 | 92 |
| Pre-cooked food | - | 80 | 20 |
| Sausages | - | 20 | 80 |
| Escalopes | 70 | 20 | 10 |
| Fruit juices | - | - | 100 |
| Trouts / Fish-breeding | - | 100 | - |
| Wine / Oil | - | - | 100 |



For the packaging of food with protective atmosphere, ensure to be using food certified gases, not explosive ones.

CHAPTER 7

OPERATION

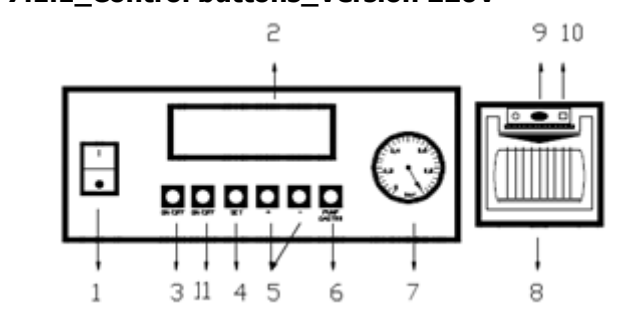
7.1_VACUUM CYCLE DESCRIPTION LCD DISPLAY

The cycle starts when you close the chamber (lid), by activating the suction of the pump. VAC writing will appear on the display together with the countdown (in seconds) of vacuum time up to 0 (zero). Should the gas option be active, the GAS writing will appear during the cycle, as it will be injected inside the chamber. Afterward, sealing will start as the SEAL writing appears on the display. At the end of this process, the cooling of the resistance starts, indicated by the COOLING writing. As it disappears, the OPENING writing will appear on the display and the lid will open automatically.

NOTE: Should it be needed to interrupt the cycle in advance for any reason, press ON/OFF for 3 seconds. The machine automatically allows the air to enter again and let the lid open.

During the normal vacuum cycle, press the button "PUMP GASTRO" for 3 seconds to seal in advance and anticipate the process.

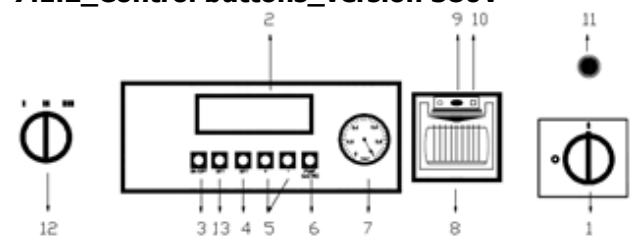
7.1.1_Control buttons_Version 220V



1. General switch O-I
2. LCD display
3. ON/OFF: to switch the electronic board on and to anticipate the end of the cycle without sealing.
4. SET: to set programs (vacuum, sealing and gas).
5. + and -: to select the required program and to increase or decrease the cycle parameters.

6. PUMP GASTRO: to activate the functions of vacuum in GN trays, pump cleaning and heating and manual sealing.
7. Vacuum gauge
8. Printer (OPTION)
9. Lighting button (indicating power electricity ON) to replace printer thermopaper
10. Button for paper scrolling

7.1.2_Control buttons_version 380V



1. General switch O-I
2. LCD display
3. ON/OFF: to switch the electronic board on and to anticipate the end of the cycle without sealing.
4. SET: to set programs (vacuum, sealing and gas).
5. + and -: to select the required program and to increase or decrease the cycle parameters.
6. PUMP GASTRO: to activate the functions of vacuum in GN trays, pump cleaning and heating and manual sealing.
7. Vacuum gauge
8. Printer (OPTION)
9. Lighting button (indicating power electricity ON) to replace printer thermopaper
10. Button for paper rolling
11. Light for power ON
12. Bar selector

7.1.3_User setting menu

Switch on the machine before entering the user setting menu (switch O-I or power light must be enlightened), press contemporarily SET and ON/OFF buttons for a few seconds. It will appear on the display:

1. Language setting (Lang)

Use **+** and **-** buttons to choose the desired language: English, Italian, Spanish, German and French.

By pressing the **SET** button it is possible to confirm and pass to the following option.

2. Vacuum sensor setting (Vac Type)

By using this option (VACUUM SENSOR), it is possible to select the percentage of vacuum desired within the chamber:

0: time in seconds

1: vacuum percentage

By pressing the **SET** button it is possible to confirm and pass to the following option.

3. Display setting (Display)

It is possible to set the display mode (PRINTER OPTION):

0: fixed: hour/date

1: intermittence: hour/date – machine setting

By pressing the **SET** button it is possible to confirm and pass to the following option.

4. Time/date setting

It is possible to set time and date by using the buttons **+** and **-**, by pressing the **SET** button, the cursor passes to the following value (Time is set in 24h format and date as DD/MM/YY i.e. 07th September 2013 appears as 07/09/13).

By pressing the **SET** button it is possible to confirm and pass to the following option.

5. User name setting

It is possible to insert the user name by following two methods:

- by pressing **+** and **-** buttons to choose characters and then **SET** to pass to the following option

- by using the keyboard (USB KEYBOARD OPTION).

By pressing the **SET** button, it is possible to pass over the empty positions and then confirm the set parameters to close this menu.

Afterward the stand-by writing will appear.

7.1.4_Program setting

Switch the machine on by pressing the button **ON/OFF**. It will appear appear the stand-by writing:



The number " 1 " indicates which program is being used. By pushing the buttons **+** and **-** it is possible to change to the following program (10 or 20 programs)

1. Vacuum time setting

By pressing the button **SET** for some seconds in each program, it will appear:



By using the buttons **+** and **-** it is possible to increase or decrease the seconds (between 0 and 50) of vacuum.

By pressing the button **SET** it is possible to confirm or to switch to the following option.

2. Vacuum percentage setting (VACUUM SENSOR OPTION)

By pressing the button **SET** for some seconds in each program, it will appear:



By using the buttons **+** and **-** it is possible to increase or decrease the seconds (between 0 and 99) of vacuum.

By pressing the button **SET** it is possible to confirm or to switch to the following option.

3. Pump intermittence setting (liquids and creams) (SOFT VACUUM OPTION 20 programm)

This option allows the pump intermittance working to vacuum liquids and creamy products.



by pressing the buttons **+** and **-** it is possible to set the intermittence working of the pump. (The cycle consists of 4 seconds of vacuum and 7 seconds of pause until the end of the whole process to total vacuum ;

Vacuum Type 0: standard vacuum

Vacuum Type 1: soft vacuum with pump intermittence

By pressing the button **SET** it is possible to confirm or to switch to the following option

4. Sealing time setting

By pressing the **SET** button, it will appear:



By using the buttons **+** and **-** it is possible to increase or decrease the time of sealing (tenths of seconds, between 0 and 4 seconds).

By pressing the button **SET** it is possible to confirm or to switch to the following option.

Should there not be further options, the stand-by writing appears again showing the number of the program modified. This means that all parameters are properly set.

5. Gas flush setting
(GAS OPTION)

By pressing again the SET button, it will appear:

By using the buttons **+** and **-** it is possible to increase or decrease the time of gas injection (tenths of seconds, between 0 and 9.9 seconds).

By pressing the button **SET** it is possible to confirm or to switch to the following option. Should there not be further options, the stand-by writing appears again showing the number of the program modified. This means that all parameters are properly set.



Do not set time of gas flush longer than vacuum time, otherwise the lid would open again by anticipating the end of the cycle.



Make sure that the gas pressure entering the chamber is not higher than 1 – 1.5 bar

6. Food preservation time setting
(PRINTER OPTION)

By pressing the **SET** button, it will appear:

By using the buttons **+** and **-** it is possible to set the first number, indicating the number of sticky labels to be printed (between 1 and 9).

NB: by setting 0, the printer will not print any labels.

By pressing the button **SET** the cursor moves to the second number, indicating the number of preservation days needed before expiry date. (between 1 and 183).

NB: beyond the number of preservation days previously set, the machine will print both the packaging and expiry date.

By pressing the button **SET** it is possible to confirm or to switch to the following option. Should there not be further options, the stand-by writing appears again showing the number of the program modified. This means that all parameters are properly set.

7. Product name and ingredients setting
(PRINTER WITH KEYBOARD + USB KIT)

By pressing again the SET button, there will be an empty line on the display:



By using the keyboard, it is possible to insert a text of up to 16 lines to be printed on the labels (i.e. food name, ingredients...).

7.2_VACUUM IN GASTRO TRAYS

In order to vacuum in GN trays, keep the lid open and connect the suction pipe to the nozzle in the chamber, placed in front of the sealing bar (image 7.1), together with the lid of the container.



Image 7.1 Suction nozzle

After having checked that the manual valve of the pipe is closed (direction: toward above), press the **"PUMP GASTRO"** button to make the suction cycle start. Once the vacuum level is desired within the tray (check the vacuum gauge), press the **"PUMP GASTRO"** button again to stop the cycle. During this cycle the display shows the message Empty gastro with the LCD model and VGA. Finally, disconnect the hose from the container by lowering the manual vent valve.

7.3_ MANUAL WELDING

During normal processing cycle by holding down the "PUMP GASTRO" for 3 seconds you can make the welding advance compared to the end of its preset vacuum.

CHAPTER 8

MAINTENANCE AND PRECAUTION

Pump heating

During winter time or with cold weather, it is advisable to pre-heat the pump in the morning in order to liquefy the oil before it circulates throughout the machine.

When the chamber lid is open press the button "**PUMP GASTRO**" for 3 seconds and let the pump work for about 15/20 seconds, and after that, press again the button to stop the pump.

Ordinary pump cleaning cycle

In order to make the ordinary pump cleaning press on the button "**PUMP GASTRO**", and while pressing, lower the chamber lid.

The writing **Pump cleaning** will appear on the display.

During this cycle, lasting around 10 minutes, the pump will work with intermittance.

NOTE: To end at any moment the cleaning cycle, pushing for some seconds **SET**.

Warning of the pump cleaning cycle

Every 10000 cycles on the machine display appears "OIL", instead of the program number: this shows that it's necessary to do the pump service.

To enter the pump service mode, push the **PUMP GASTRO** button lowering the lid at the same time. on the display it will appear **Pump cleaning**.

Once the cycle is finished, "OIL" will disappear and the program number will appear on the display.

In order to stop the cleaning cycle any time, keep the **ON/OFF** button pressed for some seconds.



The pump maintenance is not strictly linked to the 10000 cycles, but to the preserved product (i.e. when using it with flour products, oil check must be done monthly).

Furthermore, for an often usage of the machine, pump cleaning must be done every 6 months.



The working of the machine and the pump must not be continued, as the pump is not suitable to be used continuously.

Internal components

Access to the machine internal components is permitted to the manufacturer's qualified personnel only. In case unauthorized personnel entering the machine of his/her own will, the manufacturing company cannot be considered responsible for possible accidents and damages to persons or things.



All electric components are protected inside the machine body and it is necessary to remove the relevant safety casing (which is fastened with screws) to reach them. Before entering the machine body, disconnect the current plug from the electric supply panel.

Inner chamber maintenance and cleaning

It is possible to maintain a correct hygiene of the machine, by following a few simple steps.

1. Clean the sealing bars (Image 8.1) and the sylicon bar on the lid (Image 8.2) every 15 days with alcohol.



Image 8.1. Sealing bar within the chamber

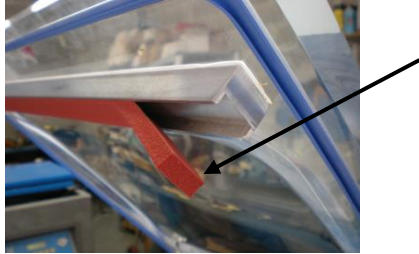


Image 8.2. Silicon bar placed on the lid

equipment supplied by the manufacturer company only.



The check of pump, filters and electrovalves must be done every 2000 working hours by authorized personnel only.

2. Replacement of the sylicon bar on the lid (Image 8.2).
3. Replacement of electric resistances, sealing bar teflon (Image 8.3) and the gasket on the lid (Figura 8.4) almost every 200 working hours.

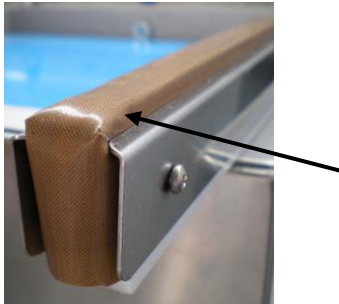


image 8.3. Sealing bar teflon

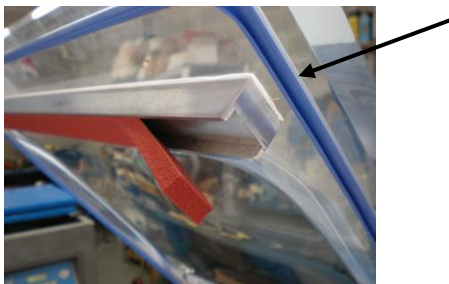


Image 8.4. Gasket on the lid



In case of electric shocks causing a bad working of the keyboard and/or the electronic board, take the USB device out and connect it again after a few seconds, in order to start it again properly.



In order to grant a proper working of the keyboard, it is recommended to use the

CHAPTER 9

PROBLEMS SOLVING

? AFTER SWITCHING ON, THE MACHINE DOES NOT START

1. Check that the plug is correctly inserted into the current outlet and in case check the contacts inside the plug itself.
2. Check that the micro-switch, positioned at the back under the left hinge , is correctly energized when the bell-lid is lowered.
3. Check the safety fuses that are on the electronic board that is in the machine and near the general switch (In the machines with the wiring in a box, the fuses are in the box).
4. If a three-phase motor is installed, disconnect the machine and open the rear door to check the possible intervention of the motor magneto-thermo overload.

? THE MACHINE STOPS UNEXPECTEDLY WHILE IT IS RUNNING

1. Check that the rear micro-switch is correctly energized.
2. Check the safety fuses that are on the electronic board that is in the machine and near the general switch (In the machines with the wiring in a box, the fuses are in the box).
3. Verify that there is voltage in the line.

? THE MACHINE WORKS PROPERLY BUT THE BAG IS NOT SEALED OR IS NOT SEALED CORRECTLY AT LID OPENING

4. Lift the sealing bar to check that the 2 cables are well fixed to the sealing bar itself
5. Verify that between the welding bar and the gasket of the lid there is a distance of at least 4-5 mm
6. Verify that the welding time is suitable for the bag thickness
7. Verify that the area in which the welding is
8. made, isn't wet or has got some creases.
9. Verify that the silicone of the lid is not damaged.

? THE MACHINE DOES NOT ATTAIN THE OPTIMUM VACUUM

1. Close the bell and when you reach the pressure of about 70/cmHg off the line,

checking if the pointer of the vacuum gauge stays in place or if recedes. In the first case we are diagnosing losses, so the problem is due to other source (vane pump, oil change, cleaning pump). In the second case it is in the presence of air infiltration in bell then:

- Check the integrity of the seal on the lid;

Thus requiring replacement of parts mentioned above, you can ask the manufacturer

2. Check that the bag during the vacuum cycle does not swell. If this happens:
 - Check the correct positioning of the bag
 - Check the correct positioning of the sealing bar in its housing
 - Check there is the correct distance between the sealing bar and against the bar (4-5 mm)
3. Verify that the weld is uniform and without breaks that could seep air
4. Check that the setting of the vacuum is adequate for the product you are crafting

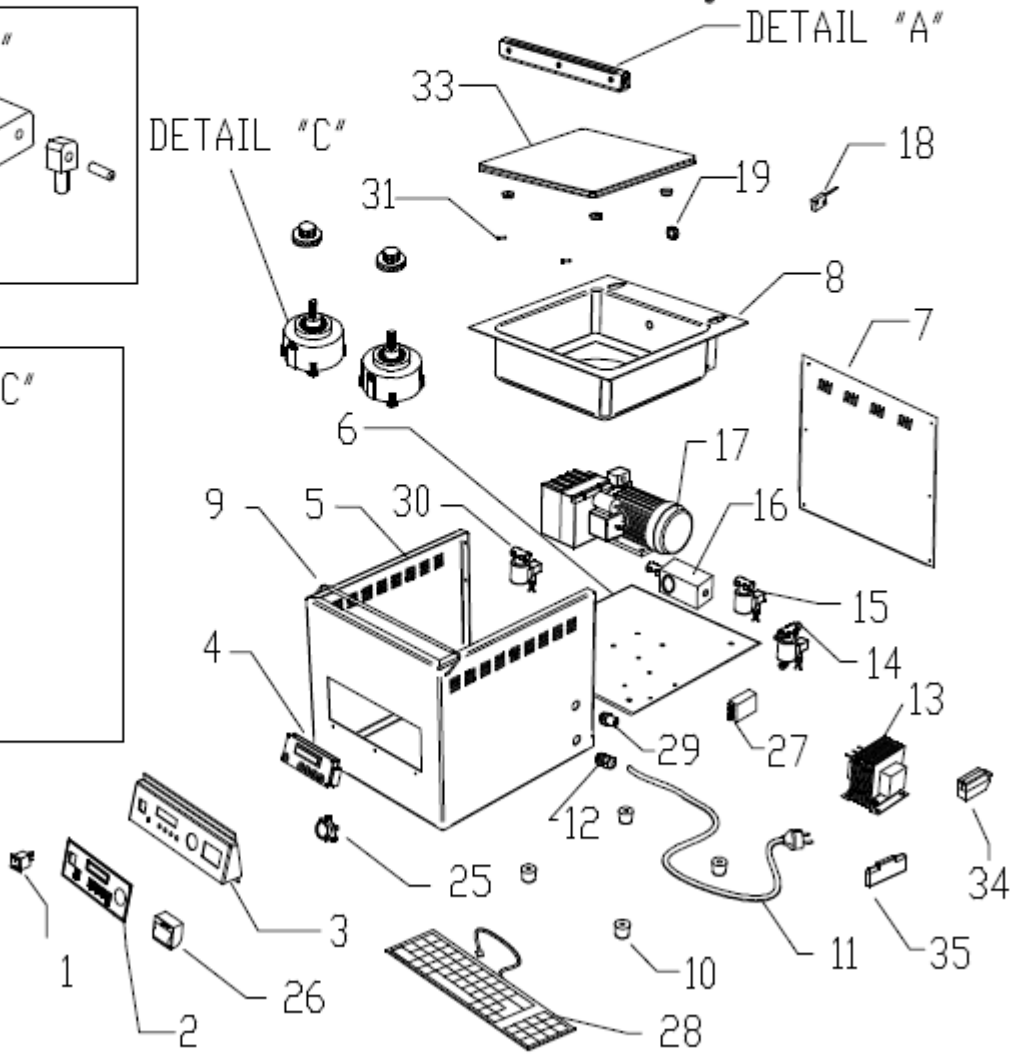
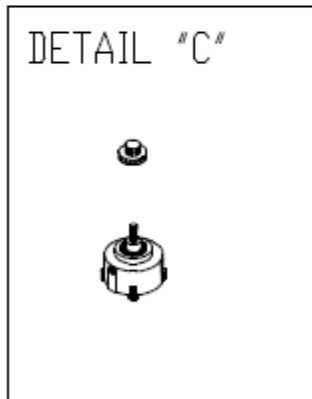
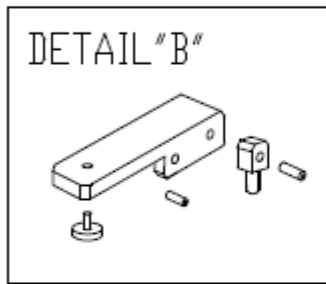
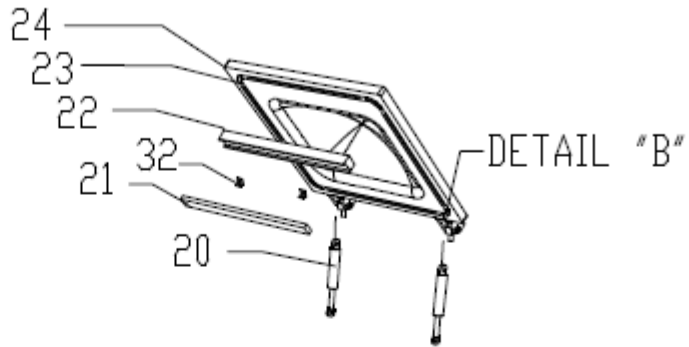
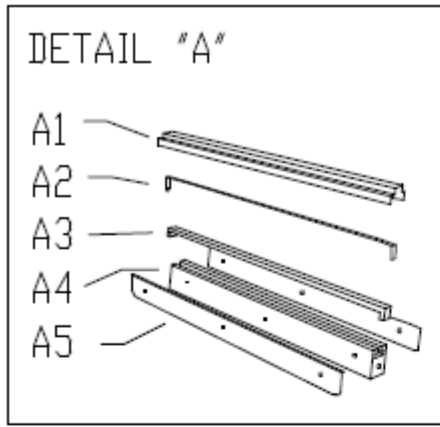
? DO NOT LIFT THE LID ON OR RAISE A LITTLE

1. Verify the proper operation of the pistons placed inside the machine.

CHAPTER 10

TOP CHAMBER

10.1_ EXPLODED VIEW

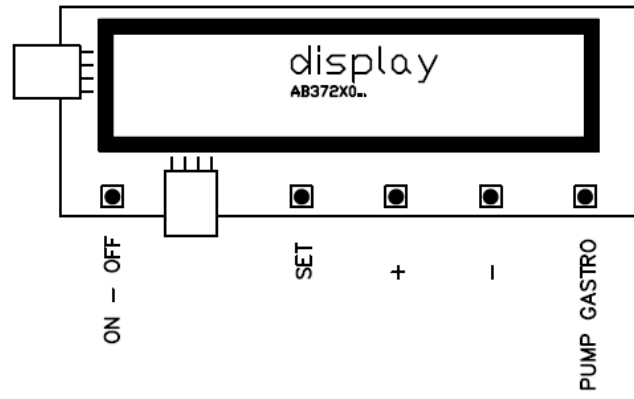


10.2_ LIST OF COMPONENTS OF THE EXPLODED VIEW

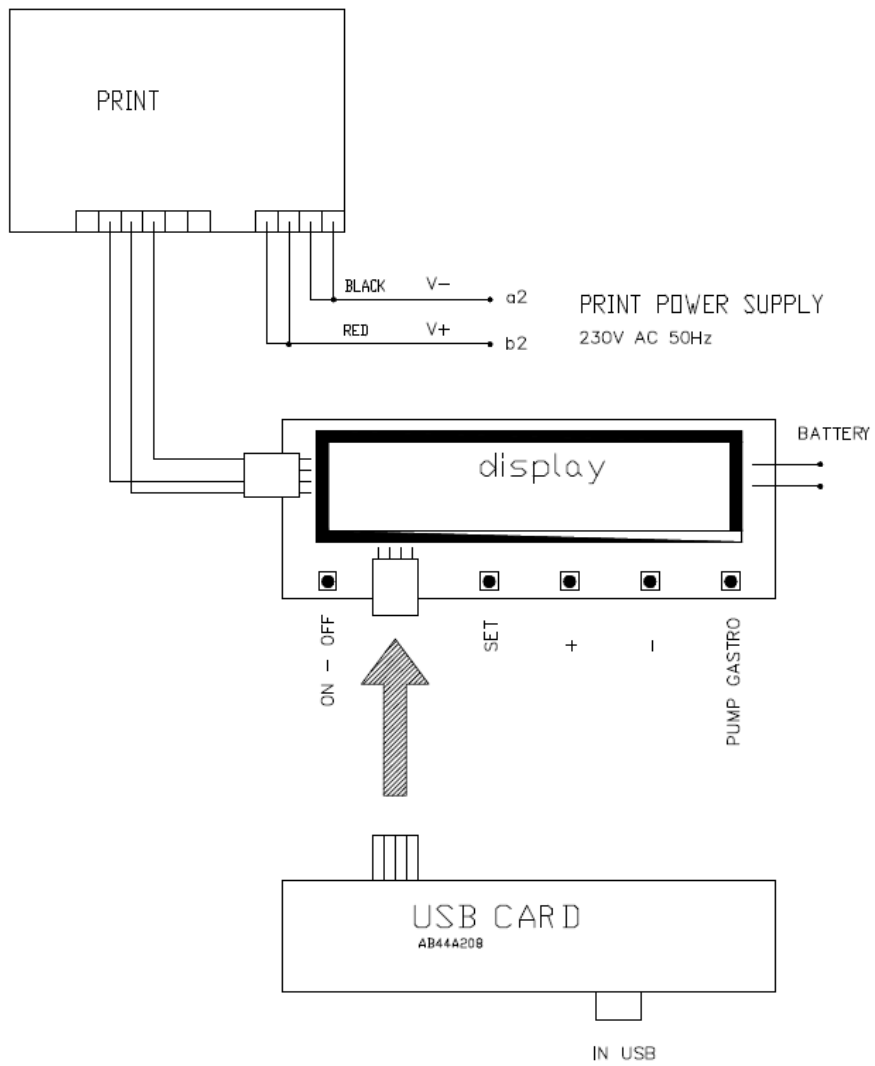
| Rif. exploded | Mod. machine | Description | Quantity |
|---------------|----------------|---------------------------|----------|
| 1 | All models | SWITCH O-I | 1 |
| 2 | All models | ADHESIVE LEXAN LCD1 | 1 |
| 2 | All models | ADHESIVE LEXAN LCD2 | 1 |
| 2 | Mistral Ghibli | ADHESIVE LEXAN LCD2 PRINT | 1 |
| 2 | All models | ADHESIVE LEXAN 7 SEGMENTS | 1 |
| 3 | Auster Eos | FRONT PANEL CONTROLS LCD1 | 1 |
| 3 | Mistral Ghibli | FRONT PANEL CONTROLS LCD1 | 1 |

| | | | |
|----------|-------------------------|-------------------------------------|---|
| 3 | Auster Eos | FRONT PANEL CONTROLS LCD2 | 1 |
| 3 | Mistral Ghibli | FRONT PANEL CONTROLS LCD2 | 1 |
| 3 | Mistral Ghibli | FRONT PANEL CONTROLS LCD2 PRINT | 1 |
| 3 | Auster Eos | FRONT PANEL CONTROLS 7 SEGMENTS | 1 |
| 3 | Mistral Ghibli | FRONT PANEL CONTROLS 7 SEGMENTS | 1 |
| 4 | All models | ELECTRONIC BOARD COMPLET LCD1 | 1 |
| 4 | All models | ELECTRONIC BOARD COMPLET LCD2 | 1 |
| 4 | Mistral Ghibli | ELECTRONIC BOARD COMPLET LCD2 PRINT | 1 |
| 4 | All models | ELECTRONIC BOARD COMPLET 7 SEGMENTS | 1 |
| 5 | Auster | CARTER | 1 |
| 5 | Eos | CARTER | 1 |
| 5 | Mistral | CARTER | 1 |
| 5 | Ghibli | CARTER | 1 |
| 6 | Auster | BASE CARTER | 1 |
| 6 | Eos | BASE CARTER | 1 |
| 6 | Mistral | BASE CARTER | 1 |
| 6 | Ghibli | BASE CARTER | 1 |
| 7 | Auster | BACK CARTER | 1 |
| 7 | Eos | BACK CARTER | 1 |
| 7 | Mistral | BACK CARTER | 1 |
| 7 | Ghibli | BACK CARTER | 1 |
| 8 | Auster | CHAMBER | 1 |
| 8 | Eos | CHAMBER | 1 |
| 8 | Mistral | CHAMBER | 1 |
| 8 | Ghibli | CHAMBER | 1 |
| 9 | Auster | LID STOP | 1 |
| 10 | Eos | LID STOP | 1 |
| 10 | Mistral | LID STOP | 1 |
| 10 | Ghibli | LID STOP | 1 |
| 10 | All models | SUPPORT | 4 |
| 11 | All models | POWER CABLE | 1 |
| 12 | All models | STOP POWER CABLE | 1 |
| 13 | Auster Eos | TRASFORMER150 | 1 |
| 13 | Mistral | TRASFORMER200 | 1 |
| 13 | Ghibli | TRASFORMER400 | 1 |
| 14 | All models | ELECTROVALVE 6212 | 1 |
| 15 | All models (not Ghibli) | ELECTROVALVE 9942 | 1 |
| 16 | All models | CONNECTOR AIR SYSTEM | 1 |
| 17 | Auster | PUMP6 | 1 |
| 17 | Eos | PUMP8 | 1 |
| 17 | Mistral | PUMP21 | 1 |
| 17 | Ghibli | PUMP25 | 1 |
| 18 | All models | SWITCH | 1 |
| 19 | All models | NOZZLE IN | 1 |
| 20 | Auster | PISTONS SPRING 1_370N | 1 |
| 20 | Eos | PISTONS SPRING 1_400N | 1 |
| 20 | Mistral | PISTONS SPRING 2_500N | 2 |
| 20 | Ghibli | PISTONS SPRING 2_750N | 2 |
| 21 | Auster | SILICON RED BAR | 1 |
| 21 | Eos | SILICON RED BAR | 1 |
| 21 | Mistral | SILICON RED BAR | 1 |
| 21 | Ghibli | SILICON RED BAR | 1 |
| 22 | Auster | COUNTER SEALING BAR | 1 |
| 22 | Eos | COUNTER SEALING BAR | 1 |
| 22 | Mistral | COUNTER SEALING BAR | 1 |
| 22 | Ghibli | COUNTER SEALING BAR | 1 |
| 23 | Auster | LID GASKET | 1 |
| 23 | Eos | LID GASKET | 1 |
| 23 | Mistral | LID GASKET | 1 |
| 23 | Ghibli | LID GASKET | 1 |
| 24 | Auster | LID | 1 |
| 24 | Eos | LID | 1 |
| 24 | Mistral | LID | 1 |
| 24 | Ghibli | LID | 1 |
| 25 | All models | MANOMETER | 1 |
| 26 | Mistral Ghibli | PRINT | 1 |
| 27 | Mistral Ghibli | POWER SUPPLY PRINTER | 1 |
| 28 | Mistral Ghibli | KEYBOARD | 1 |
| 29 | Eos Mistral Ghibli | NOZZLE GAS IN | 1 |
| 30 | Eos Mistral Ghibli | ELECTROVALVE GAS 6610 | 1 |
| 31 | Eos Mistral Ghibli | NOZZLE GAS | 2 |
| 32 | Eos Mistral Ghibli | STOPPING BAG GAS | 2 |
| 33 | Auster | SHELF | 2 |
| 33 | Eos | SHELF | 2 |
| 33 | Mistral | SHELF | 2 |
| 33 | Ghibli | SHELF | 2 |
| 34 | All models | TIME SWITCH | 1 |
| 35 | All models | FUSE HOLDER WITH FUSE | 1 |
| DETAIL A | Auster | COMPLETE SEALING BAR | 1 |
| DETAIL A | Eos | COMPLETE SEALING BAR | 1 |
| DETAIL A | Mistral | COMPLETE SEALING BAR | 1 |
| DETAIL A | Ghibli | COMPLETE SEALING BAR | 1 |
| A1 | Auster | TEFLON | 1 |
| A1 | Eos | TEFLON | 1 |
| A1 | Mistral | TEFLON | 1 |
| A1 | Ghibli | TEFLON | 1 |
| A2 | Auster | RESISTANCE Ni Chr | 1 |
| A2 | Eos | RESISTANCE Ni Chr | 1 |
| A2 | Mistral | RESISTANCE Ni Chr | 1 |
| A2 | Ghibli | RESISTANCE Ni Chr | 1 |
| A3 | Auster | BAKELITE | 1 |
| A3 | Eos | BAKELITE | 1 |
| A3 | Mistral | BAKELITE | 1 |
| A3 | Ghibli | BAKELITE | 1 |
| A4 | Auster | PLASTIC SEALING BAR BODY | 1 |
| A4 | Eos | PLASTIC SEALING BAR BODY | 1 |
| A4 | Mistral | PLASTIC SEALING BAR BODY | 1 |
| A4 | Ghibli | PLASTIC SEALING BAR BODY | 1 |
| A5 | Auster | SIDE PLATES | 2 |
| A5 | Eos | SIDE PLATES | 2 |
| A5 | Mistral | SIDE PLATES | 2 |
| A5 | Ghibli | SIDE PLATES | 2 |
| DETAIL B | Auster Eos | HINGE | 2 |
| DETAIL B | Mistral | HINGE | 2 |
| DETAIL B | Ghibli | HINGE | 2 |
| DETAIL C | Auster | SEALING BAR PISTONS UP | 2 |
| DETAIL C | Eos Mistral Ghibli | SEALING BAR PISTONS UP | 2 |

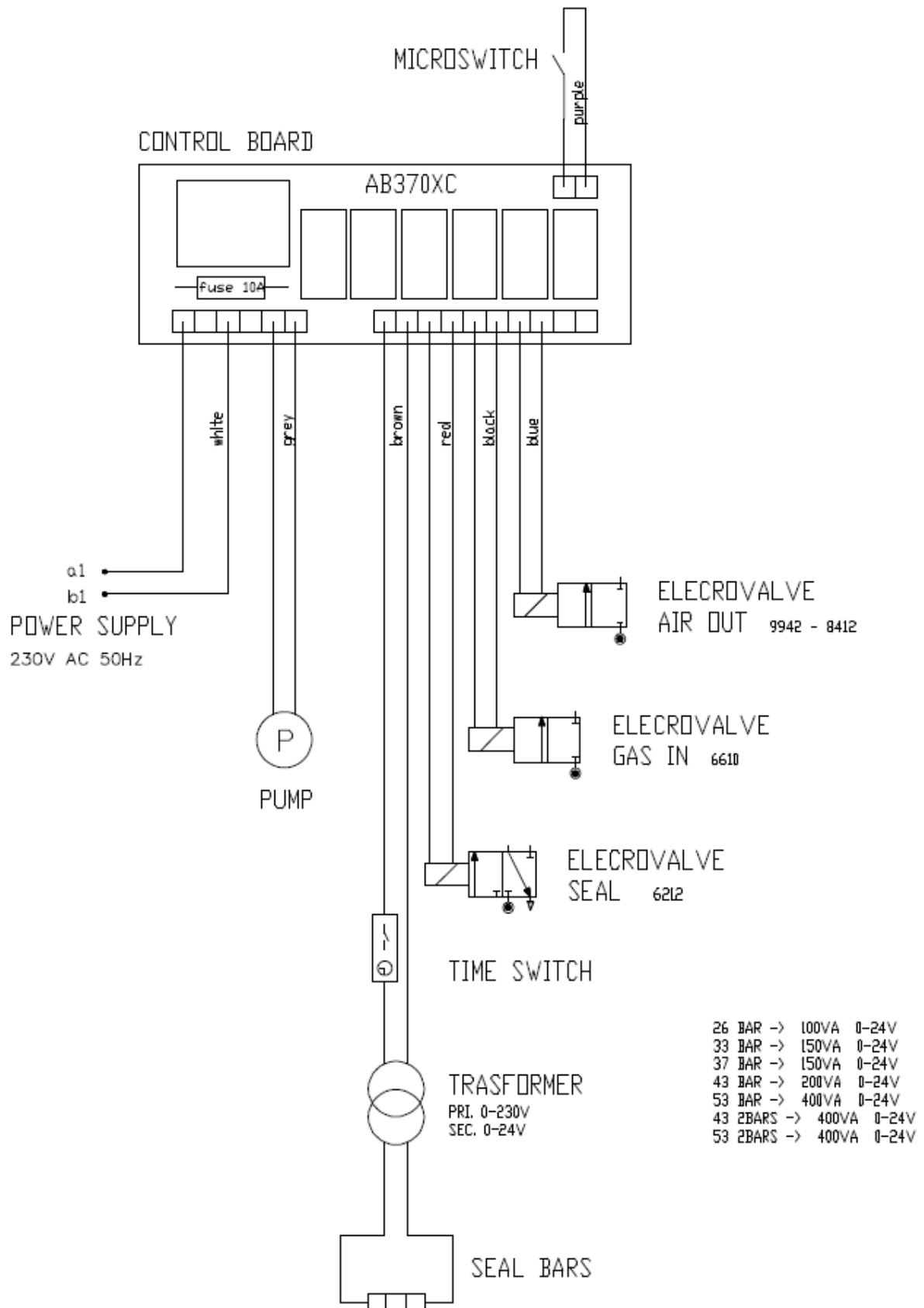
10.3_ DISPLAY BOARD:



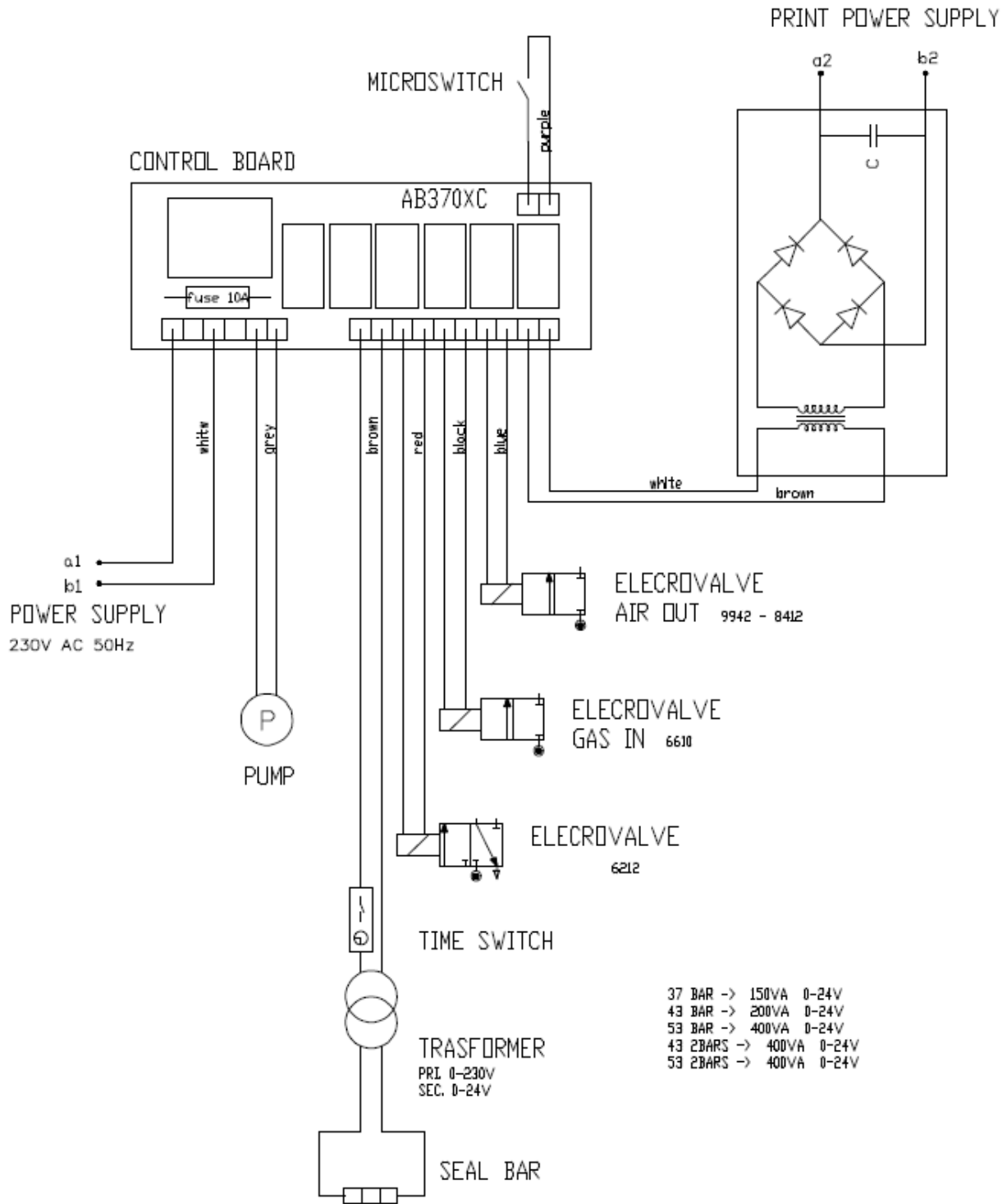
10.4_ PRINTER + KEYBOARD DISPLAY BOARD:



10.5_ STANDARD ELECTRONIC SCHEME:



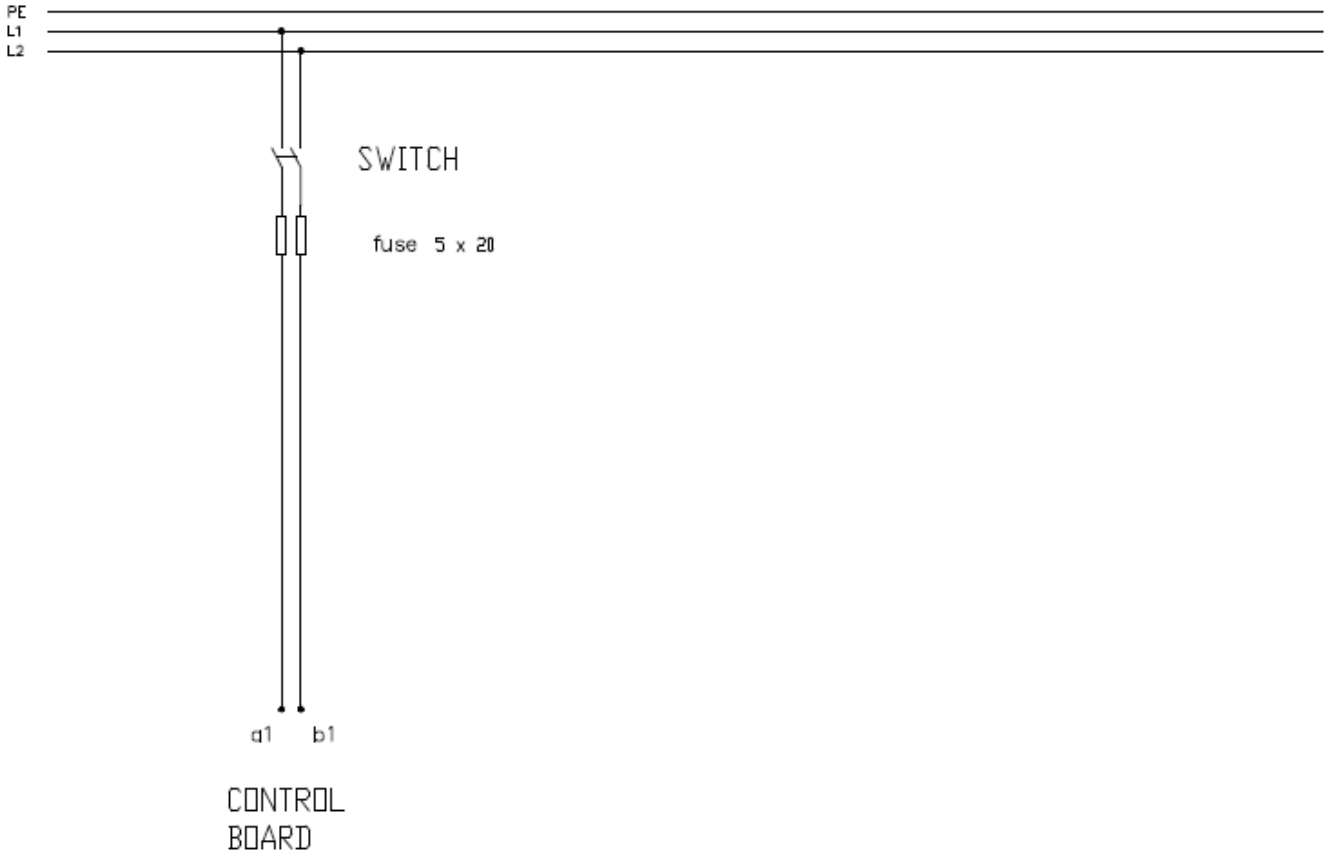
10.6_ PRINTER + KEYBOARD ELECTRONIC SCHEME:



10.7_ POWER SCHEME

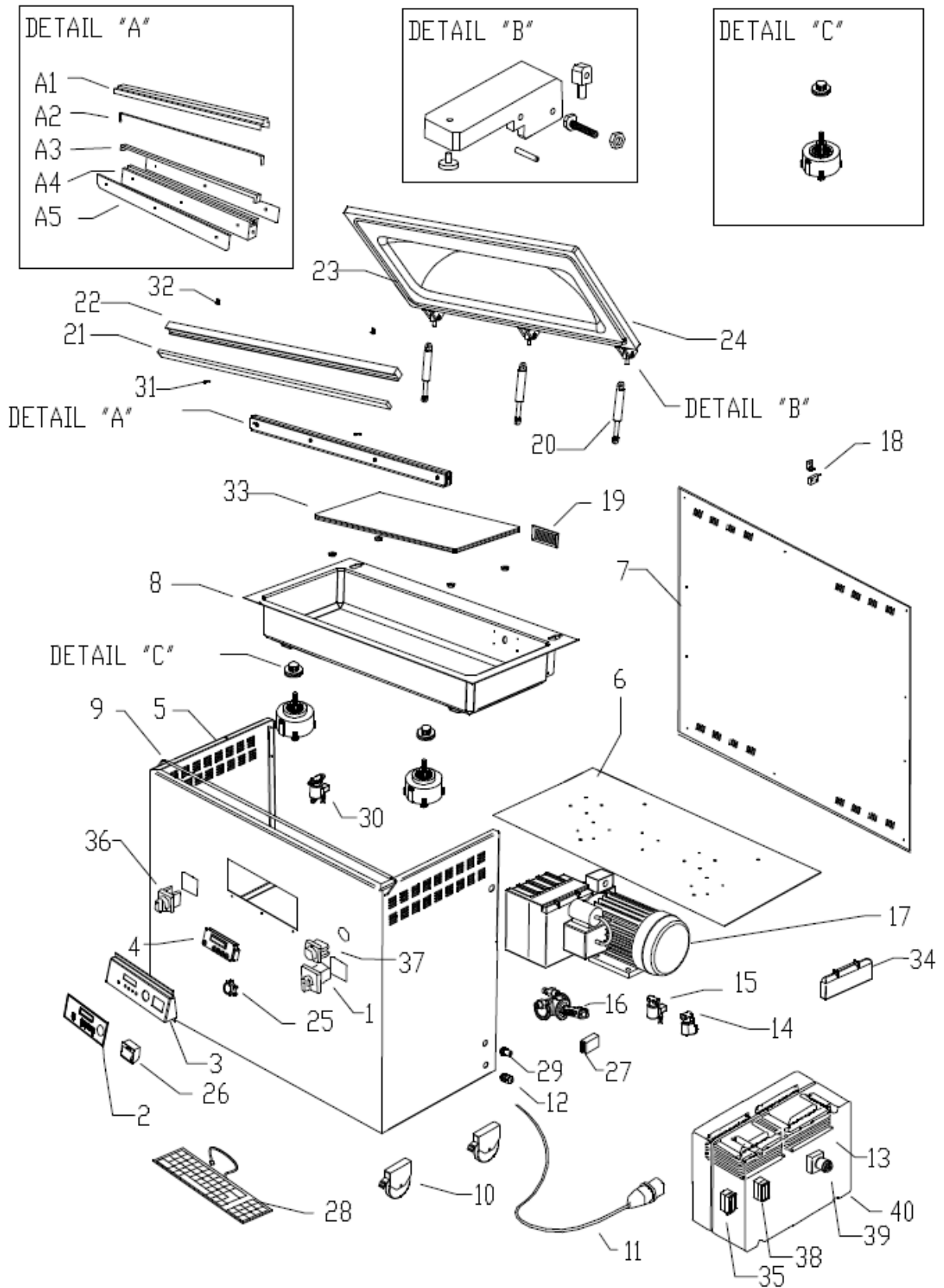
POWER SUPPLY

230V AC 50Hz



FREE STANDING CHAMBER

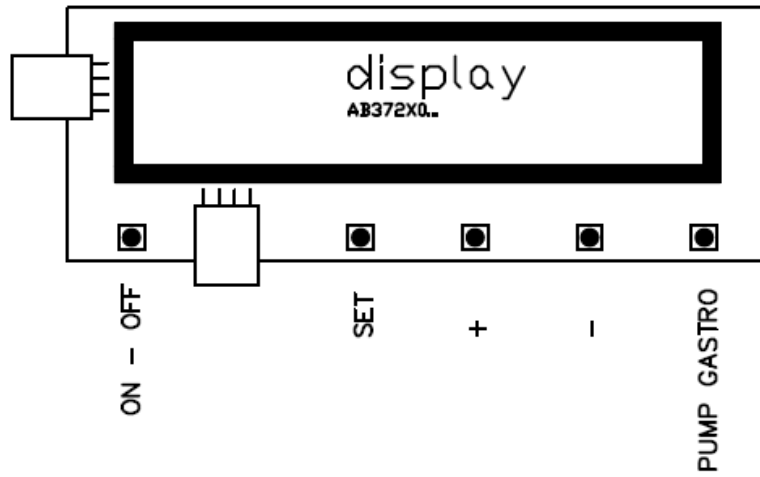
11.1_EXPLODED VIEW



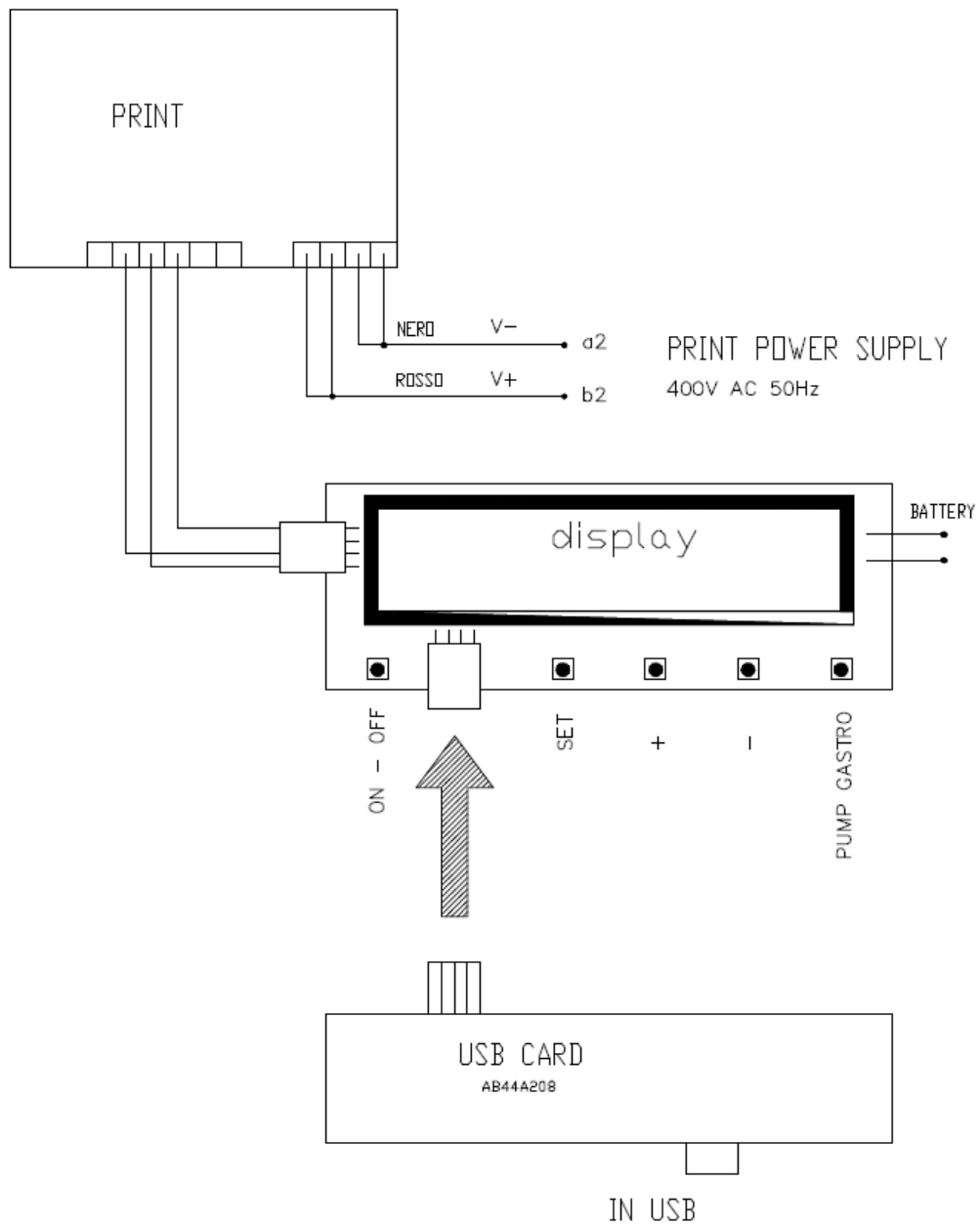
11.2_ COMPONENTS LIST OF THE EXPLODED VIEW

| Rif. exploded view | Mod. machine | Description | Quantity |
|--------------------|------------------------|---|----------|
| 1 | All Models | SWTICH O-1 380V | 1 |
| 2 | All Models | ADHESIVE LEXAN LCD1 | 1 |
| 2 | All Models | ADHESIVE LEXAN LCD2 | 1 |
| 2 | All Models | ADHESIVE LEXAN LCD2 PRINT | 1 |
| 2 | All Models | ADHESIVE LEXAN 7 SEGMENTS | 1 |
| 3 | All Models | FRONT PANEL CONTROLS LCD1 | 1 |
| 3 | All Models | FRONT PANEL CONTROLS LCD2 | 1 |
| 3 | All Models | FRONT PANEL CONTROLS LCD2 PRINT | 1 |
| 3 | All Models | FRONT PANEL CONTROLS 7 SEGMENTS | 1 |
| 3 | All Models | FRONT PANEL CONTROLS 7 SEGMENTS | 1 |
| 4 | All Models | ELECTRONIC BOARD COMPLET LCD1 | 1 |
| 4 | All Models | ELECTRONIC BOARD COMPLET LCD2 | 1 |
| 4 | All Models | ELECTRONIC BOARD COMPLET LCD2 PRINT | 1 |
| 4 | All Models | ELECTRONIC BOARD COMPLET 7 SEGMENTS | 1 |
| 5 | Blizzard | CARTER | 1 |
| 5 | Alysee | CARTER | 1 |
| 5 | Tornado | CARTER | 1 |
| 5 | Monsoon | CARTER | 1 |
| 6 | Blizzard | BASE CARTER | 1 |
| 6 | Alysee | BASE CARTER | 1 |
| 6 | Tornado | BASE CARTER | 1 |
| 6 | Monsoon | BASE CARTER | 1 |
| 7 | Blizzard | BACK CARTER | 1 |
| 7 | Alysee | BACK CARTER | 1 |
| 7 | Tornado | BACK CARTER | 1 |
| 7 | Monsoon | BACK CARTER | 1 |
| 8 | Blizzard | CHAMBER | 1 |
| 8 | Alysee | CHAMBER | 1 |
| 8 | Tornado | CHAMBER | 1 |
| 8 | Monsoon | CHAMBER | 1 |
| 9 | Blizzard | LID STOP | 1 |
| 9 | Alysee | LID STOP | 1 |
| 9 | Tornado | LID STOP | 1 |
| 9 | Monsoon | LID STOP | 1 |
| 10 | All Models | WHEEL | 4 |
| 11 | Blizzard | POWER CABLE 220V | 1 |
| 11 | All Models | POWER CABLE 380V | 1 |
| 12 | All Models | STOP POWER CABLE | 1 |
| 13 | All Models | TRANSFORMER400VA | 1/2 |
| 13 | Alysee Tornado Monsoon | TRANSFORMER600VA | 1/2 |
| 14 | All Models | ELECTROVALVE 6212 | 1/2 |
| 15 | All Models | ELECTROVALVE 8414/8415 | 1 |
| 16 | All Models | CONNECTOR AIR SYSTEM | 1 |
| 17 | Blizzard | PUMP25/40 | 1 |
| 17 | Alysee | PUMP40 | 1 |
| 17 | Tornado | PUMP63 | 1 |
| 17 | Monsoon | PUMP100 | 1 |
| 18 | All Models | PROXIMETER + MAGNET | 1 |
| 19 | All Models | NOZZLE IN | 1 |
| 20 | Blizzard | PISTONS SPRING 3 75 | 2 |
| 20 | Alysee | PISTONS SPRING 2 110110/3 858585 | 2/3 |
| 20 | Tornado | PISTONS SPRING 3 856085 3 958595 3 859585 | 3 |
| 20 | Monsoon | PISTONS SPRING 3 110110110 3 11095110 | 3 |
| 21 | Blizzard | SILICON RED BAR | 1 |
| 21 | Alysee | SILICON RED BAR | 1 |
| 21 | Tornado | SILICON RED BAR | 1 |
| 21 | Monsoon | SILICON RED BAR | 1 |
| 22 | Blizzard | COUNTER SEALING BAR | 1 |
| 22 | Alysee | COUNTER SEALING BAR | 1 |
| 22 | Tornado | COUNTER SEALING BAR | 1 |
| 22 | Monsoon | COUNTER SEALING BAR | 1 |
| 23 | Blizzard | LID GASKET | 1 |
| 23 | Alysee | LID GASKET | 1 |
| 23 | Tornado | LID GASKET | 1 |
| 23 | Monsoon | LID GASKET | 1 |
| 24 | Blizzard | LID | 1 |
| 24 | Alysee | LID | 1 |
| 24 | Tornado | LID | 1 |
| 24 | Monsoon | LID | 1 |
| 25 | All Models | MANOMETER | 1 |
| 26 | All Models | PRINT | 1 |
| 27 | All Models | POWER SUPPLY PRINT | 1 |
| 28 | All Models | KEYBOARD | 1 |
| 29 | All Models | NOZZLE IN GAS | 1 |
| 30 | All Models | ELECTROVALVE GAS 6610 | 1 |
| 31 | All Models | NOZZLE GAS | 2 |
| 32 | All Models | STOPPING BAG GAS | 2 |
| 33 | Blizzard | SHELF | 2 |
| 33 | Alysee | SHELF | 2 |
| 33 | Tornado | SHELF | 2 |
| 33 | Monsoon | SHELF | 2 |
| 34 | All Models | TIME SWITCH | 1 |
| 35 | All Models | FUSE HOLDER WITH FUSE | 1 |
| 36 | All Models | SEALING BAR SELECTOR | 1 |
| 37 | All Models | LIGHT LINE | 1 |
| 38 | All Models | TLR | 2 |
| 39 | All Models | RELE | 1 |
| 40 | All Models | ELECTRICAL PANEL | 1 |
| (1) | Blizzard | SWTICH O-1 220V (rif. espl. pag15) | 1 |
| DETAIL A | Blizzard | COMPLETE SEALING BAR | 1 |
| DETAIL A | Alysee | COMPLETE SEALING BAR | 1 |
| DETAIL A | Tornado | COMPLETE SEALING BAR | 1 |
| DETAIL A | Monsoon | COMPLETE SEALING BAR | 1 |
| A1 | Blizzard | TEFLON | 1 |
| A1 | Alysee | TEFLON | 1 |
| A1 | Tornado | TEFLON | 1 |
| A1 | Monsoon | TEFLON | 1 |
| A2 | Blizzard | RESISTENCE Ni Chr | 1 |
| A2 | Alysee | RESISTENCE Ni Chr | 1 |
| A2 | Tornado | RESISTENCE Ni Chr | 1 |
| A2 | Monsoon | RESISTENCE Ni Chr | 1 |
| A3 | Blizzard | BAKELITE | 1 |
| A3 | Alysee | BAKELITE | 1 |
| A3 | Tornado | BAKELITE | 1 |
| A3 | Monsoon | BAKELITE | 1 |
| A4 | Blizzard | PLASTIC SEALING BAR BODY | 1 |
| A4 | Alysee | PLASTIC SEALING BAR BODY | 1 |
| A4 | Tornado | PLASTIC SEALING BAR BODY | 1 |
| A4 | Monsoon | PLASTIC SEALING BAR BODY | 1 |
| A5 | Blizzard | SIDE PLATES | 2 |
| A5 | Alysee | SIDE PLATES | 2 |
| A5 | Tornado | SIDE PLATES | 2 |
| A5 | Monsoon | SIDE PLATES | 2 |
| DETAIL B | Blizzard | HINGE | 2 |
| DETAIL B | Alysee Tornado Monsoon | HINGE | 2/3 |
| DETAIL C | All Models | SEALING BAR PISTONS UP | 2/3 |

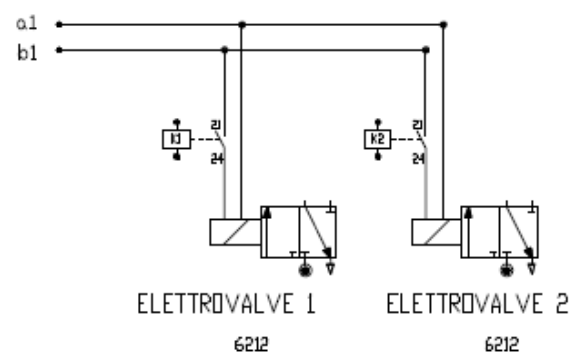
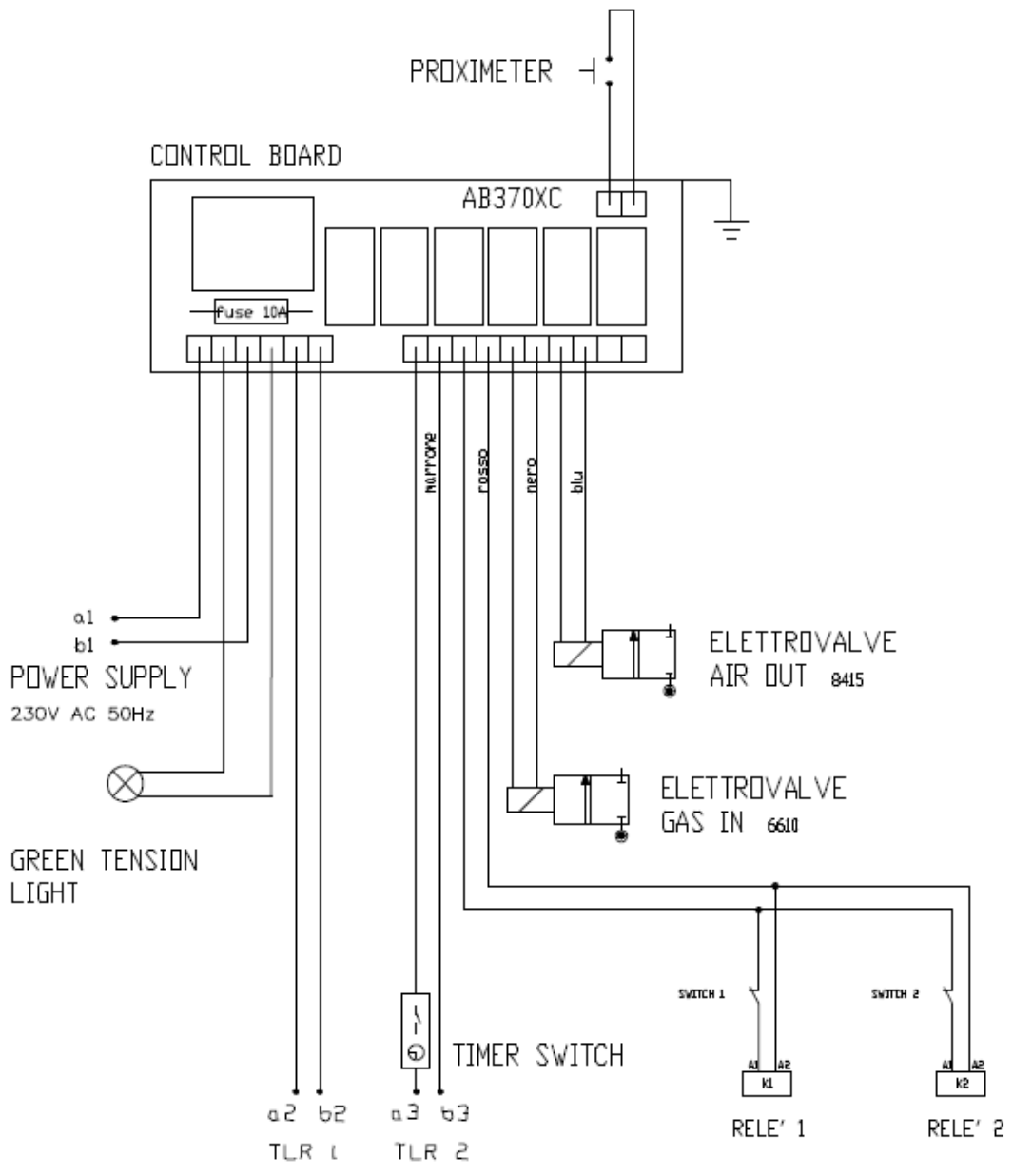
11.3_ DISPLAY BOARD:



11.4_ PRINTER + KEYBOARD DISPLAY BOARD:

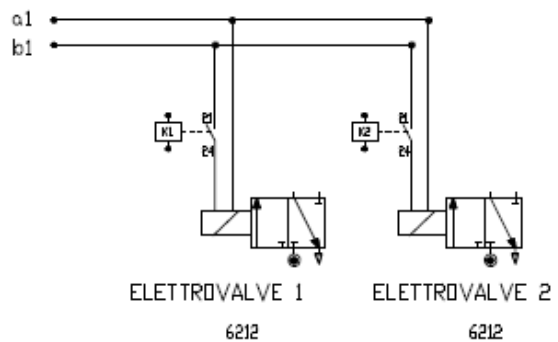
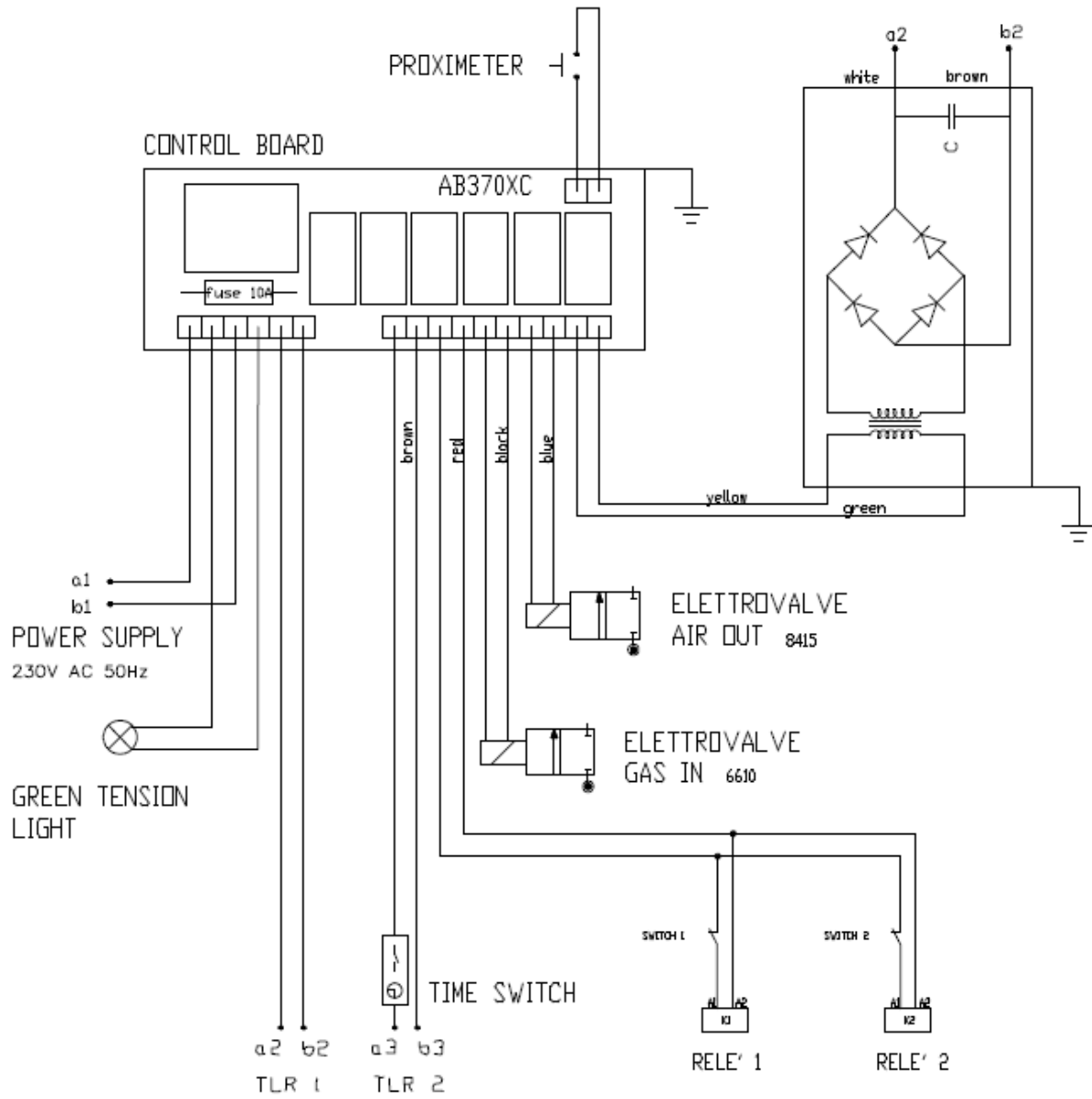


11.5_ STANDARD ELECTRIC SCHEME:



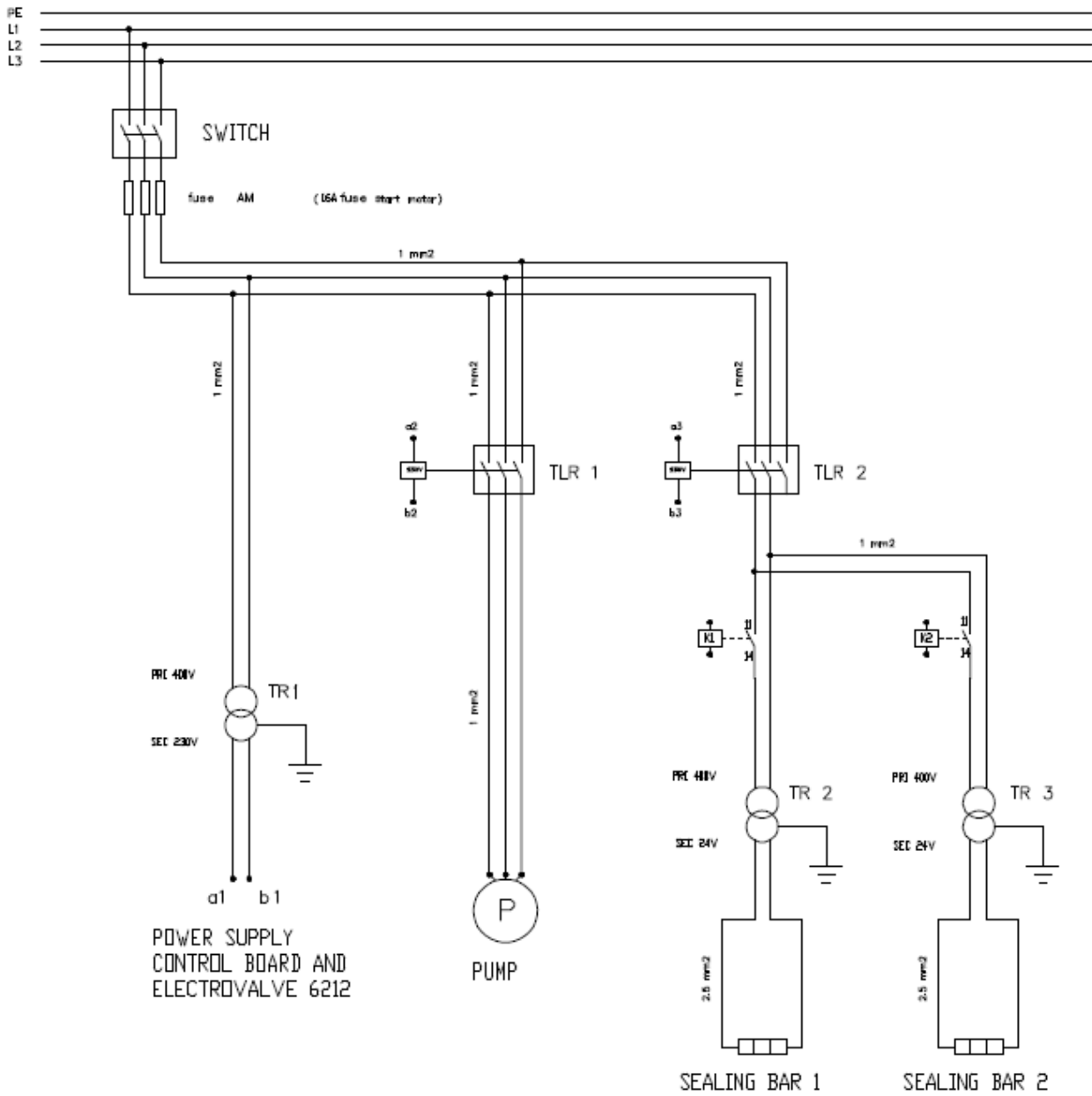
11.6_ PRINT + KEYBOARD ELECTRIC SCHEME:

PRINT POWER SUPPLY



11.7_ POWER SCHEME

400V 50Hz 3P



TRASFORMER

400 VA
 PRI. 0-230V
 SEC. 0-24V BARRA 53

600 VA
 PRI. 0-230V
 SEC. 0-24-36-48V BARRA 63-73-93