



## Bagmatic



# USER MANUAL

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## Important Safety Instructions

### General Safety Precautions

- Keep this instruction manual always at hand. It should remain with the unit if moved to a different place or operated by another user.
- This device is designed to package biological doses and only for professional use in laboratories. It should only be operated following these instructions and never have its design adapted or transformed for any other application as packaging dangerous or flammable fluids.
- Repairs to this device should be performed by personnel authorized by the manufacturer. Any part or accessory occasionally supplied by the manufacturer should only be used for repairs. Otherwise, the equipment may be damaged or cause other damages or injuries.
- The unit lacks electrical power only when disconnected from the socket. Unplug the equipment before any cleaning or maintenance work (never pull on the cord to unplug it). If access to the plug is difficult, disconnect electrical power from the control panel.
- Make sure the cord is not trapped, crushed or damaged by the back of the device, there is danger of electrocution. A damaged power cord should be immediately replaced by a new one, always by a qualified technician.
- The unit lacks pressure only when disconnected from the safety valve or the compressor itself. Remove pressure input before any cleaning or maintenance work.
- Make sure the pressure hose is not trapped, crushed or damaged by the back of the device; it may cause projections of compressed air, unpleasant noises or affect the performance of the unit. A damaged pressure hose should be immediately replaced by a new one, always by a qualified technician.

- Heavy equipment. The equipment should be handled by two people.
- Keep the equipment away from possible splashing of fluids and in a well-aired place.
- Make sure the unit is perfectly leveled and there is no risk of turning over or falling.

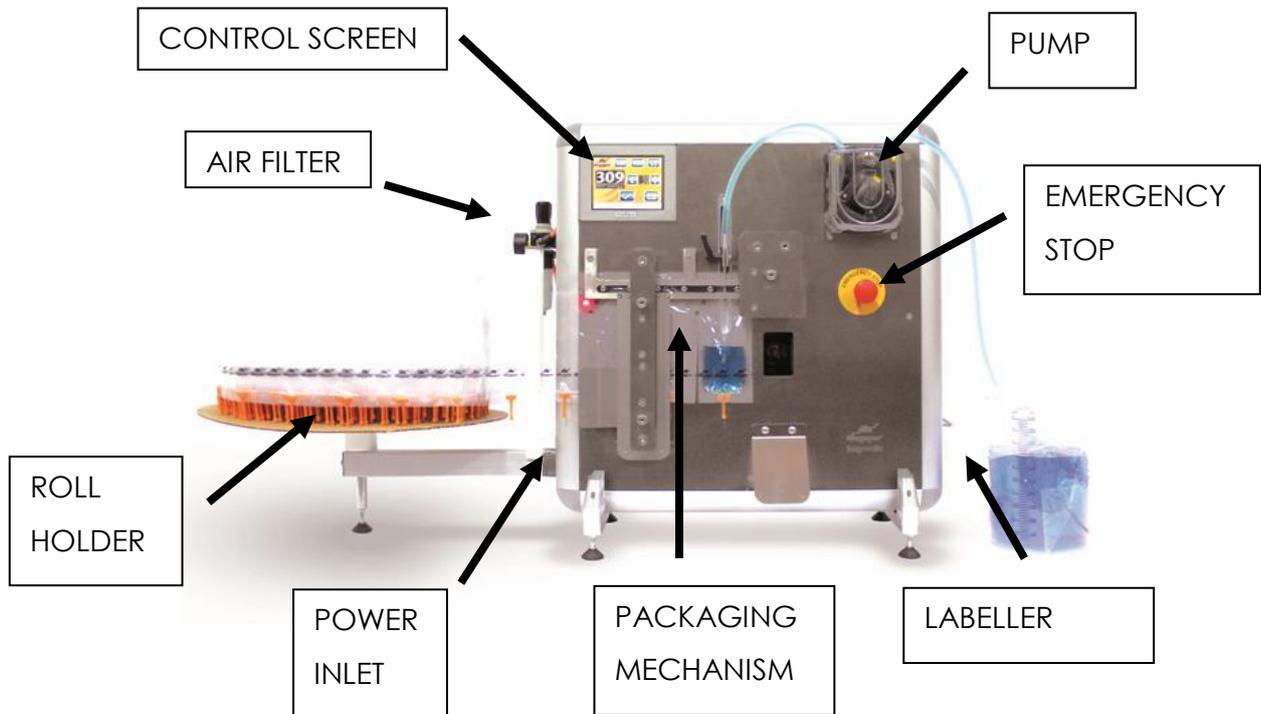
## General Information

Magapor offers the packaging equipment BAGMATIC M-1000, designed for packaging semen automatically in high-capacity production studs, which require high speed and identification of the semen dose.

### Your choice

- The equipment you chose is designed to facilitate the automatic packaging and labeling of doses in high-capacity production studs.
- Thanks to its compact design and low consumption, it fits any installation.
- Its strong built in stainless steel and anodized aluminum satisfies the highest requirements in terms of cleaning and guarantees durability.
- It features industrial control and drive devices from credited brands, which guarantee high reliability and quick availability of spare parts worldwide.
- The use of mechanisms that do not need maintenance reduces preservation of the equipment to a simple cleaning routine.
- The interactive screen enables a visual and intuitive control of the machine. Its multiple connectivity options include connection to PC via Ethernet and to terminals as barcode readers or USB drives.
- It can optionally incorporate a multiple roll holder to work more comfortably with various rolls.

## Description of Main Parts



## Installation and Operation

### Controls and Display

The control and monitoring screen is located on the upper left part of the equipment.

The touch screen interacts with the user, controls the different electromechanical actuators of the equipment and receives signals from the detectors. The whole electronic control system is centralized in this device.

It also enables users to enter the information to be printed on labels, start and stop the packaging, adjust the volume of the dose, and set other necessary parameters for operation.

In case of blister shortage, the screen shows a short alert specifying the problem.



The use of this interface will be further explained in another section of this manual.

On the central right part the emergency stop button can be found. It makes easier the immediate stop and the controlled restart of the machine in case of blockage or accident.

On the rear part is the USB port from where devices such as bar code readers could be connected for automatic data acquisition. Next to it, the Ethernet port can be found, which allows the on line connection of the device to send/receive data through PC.

On the left-hand side is the compressed-air regulator filter. Such device limits the air pressure entering the machine, preventing internal pressure from reaching dangerous values. Current operation pressure can be checked on the in-built gauge.

### **Placement**

Place the equipment on a robust work table, checking it supports approx. 85 Kg of weight. The location chosen should be large enough for, on the one hand, dissipating correctly the heat produced by the machine and, on the other, working freely and comfortably. Consider the room intended for the blister roll at the left and the space needed to place the jug or container for semen at the right.

To prevent vibrations and unpleasant noises, make sure the whole set is perfectly even on its support legs.

It is recommended to provide the work setting with enough light, approx. 300 to 500 lux.

The packaged dose is ejected frontally and falls on the exit ramp by gravity. It is important to save enough space for a collection basket or box.

**Warning:** Heavy machinery - 65 Kg, - handle it with the suitable means and assistance of another person..



### Roll Holder Assembly

To save space, the roll holder comes disassembled from the equipment.

Assembly it is very easy. Assemble the stand rod in the piece placed in the bottom left side and tighten them just as it is shown in the following picture:

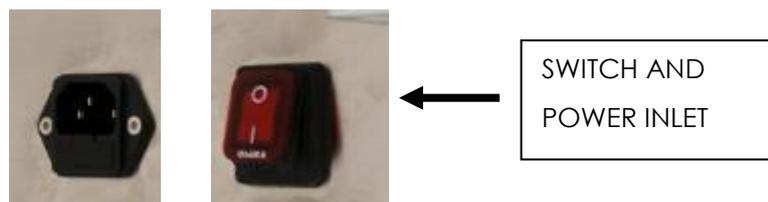
Once assembled, insert the support cone through the hole in the end of the bar and place on it the plate that will support the blister coil. Secure the position with the brake screw



Once assembled, place the white tray that holds the blister roll.

### Connection to Power Supply

The machine has main switch and a power inlet on its left side, to which a power cord matching the type of socket available(european, chinese, etc.) should be attached. The terminal features a 6,3 A protection fuse against short-circuits.



The equipment can be powered at 110V/60Hz or 230V/50Hz without further adjustment. The power inlet itself detects work tension and adapts to it automatically.

**Important:** The equipment has been designed to operate in countries with 110V/60 or 230V/50Hz voltage. For users and the device itself safety, it is important to have an efficient ground wire according to Low Voltage Electro Technical Regulations and a protection device such as a residual-current circuit breaker



**The manufacturer declines all responsibility in the event that such security measures are not adopted.**

### **Pneumatic Connection**

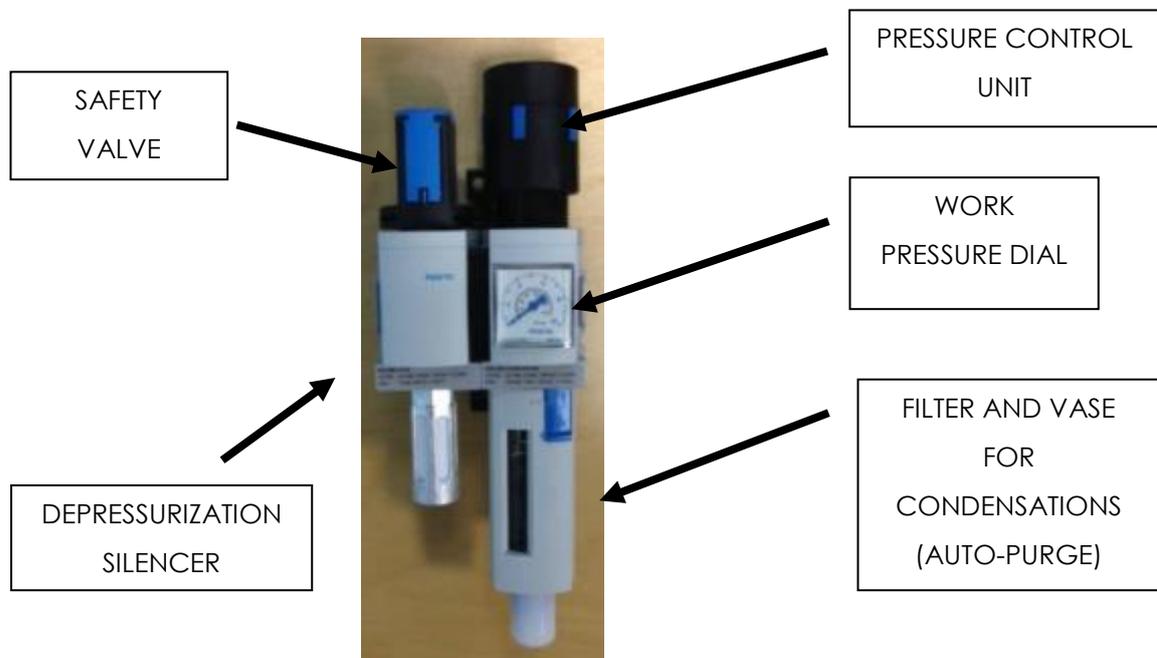
The regulator-filter removes in the incoming dust and suspended particles in compressed air and regulates work pressure to a correct and stable value. The regulator is set by default at 5 bar of work pressure and it is not advisable to modify it. Pressure values under 4 bar may affect correct performance, whereas pressure values over 8 bar may damage the pneumatic components. Work pressure can be adjusted using the rotating knob, although it is recommended not to alter it.

The device incorporates a safety valve that frees air pressure from the equipment without detaching the hose from the pressure inlet point.

Next to the safety valve, there is a coupling for attaching a 8 mm hose of compressed air, included in the package.

Compressor or pressure characteristics must be:

-Minimum pressure in the income of the device: 6 bar
- Maximum pressure in the income of the device 8 bar
-Available flow: 30 L/min
-Tank Minimum capacity: 50 L
-Compressor minimum power: 1.5 HP



The filter-regulator is equipped with a valve for the automatic purge of the condensed water. However, the compressor must be purged periodically, or a humidity separator or dryer must be installed at the outlet of the compressor. Too much moisture in the compressed air can damage the pneumatic circuit of the machine.

**Important:** The equipment has been designed to work in a pressure range between 6 and 8 bar. Increasing the pressure level over 8 bar may damage the machine. Work pressure of the machine is 5 bar.



For safety reasons, the unit features a valve to shut off pressure in case of emergency or whenever the user needs it.

The manufacturer declines all responsibility in the event that such security measures are not adopted.

## Set up

### Main Menu

After connecting the equipment to the power supply and the compressed air point, check the pressure gauge marks 5 bar and the emergency button is not activated (check by turning it). Then, press the general switch.

The screen must turn on and show the main menu after running the system:



This menu contains the start and stop buttons of the machine and gives access to additional menus for setting up parameters or entering information.

The following keys are at the bottom:

- Start/ resume button for the packaging process 
- Stop button for the packaging process 

- Error reset button (hidden) 
- Button for manual pumping (hidden) 
- Button that allow die cutters opening 

On the central part it is possible to find:

- A numeric display of the quantity of doses to be packaged. The numeric counter is updated while doses are packaged, arriving to a zero value when all doses have been packaged.



- A numeric display of the volume to be packaged in each dose, together with the keys for increasing and reducing volume on the right.



The icons at the top give access to the following menus:

- Label setup menu 

- Data input menu by bar code 

- Work parameter adjustment menu 

- Advice and technical support menu 

At the bottom there is a message bar that show simple messages to know the current device state.

When the device is switched on, it appears the message "WAIT PLEASE" showing that the machine is starting. After that, "CHEK TEMPERATURE" message will appear to remember the necessity of waiting 15 minutes to let the sealing jaw reach the work temperature.

### **Threading the blister roll and inserting the pump tube:**

Before starting to package, it is necessary to thread the blister roll and install the pump tube in the machine:

Firstly, the pump tube will be placed. To do this, insert a section of 1.5-2 m of silicon tube suitable for peristaltic pumping in the head of the filling needle and introduce the needle in the support clamp as it is shown in the image:

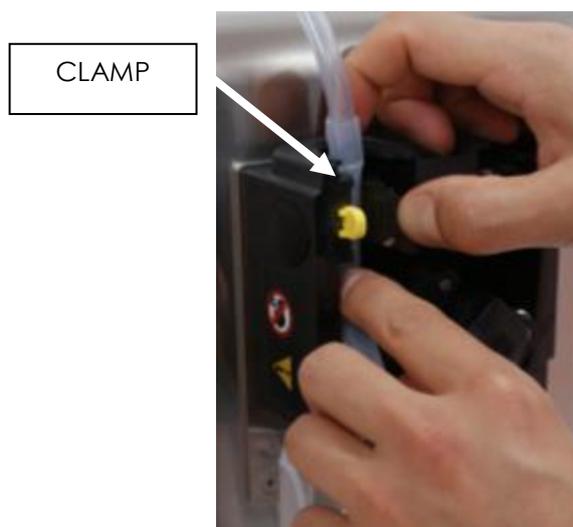


The needle will be inserted in the support clamp, loosening the locking butterfly screw. Do not tighten it again yet, because it will be necessary to make another operation after calibrating the peristaltic pump which involves removing the needle from the clamp.

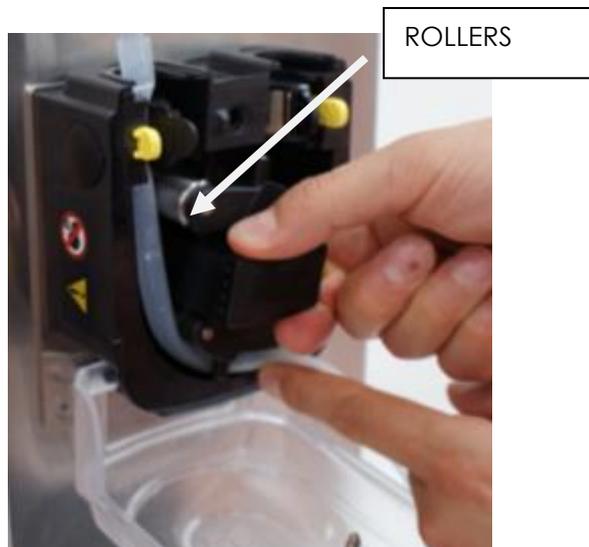
Leave a 40 cm free section of the tube between the support clamp and the pumping headpiece and place the tube inside the headpiece.

Firstly open the cover turning a quarter the close screw with the help of a screwdriver, a coin or something similar.

Open the yellow clamp of the pump headpiece and fix the tube:



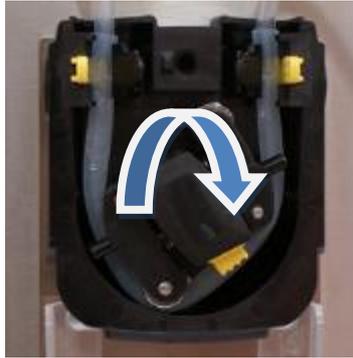
Turn the impeller manually and insert the silicon segment progressively with your left-hand forefinger. The silicon part should stand under the action of the stainless steel rollers in the whole semicircle of the headpiece:



Once inserted all the silicon segment, use the second yellow clamp to fix the opposite free end:



See the result in the previous picture. To end with, close the cover of the peristaltic pump by pressing. Note the pump always turns clockwise during the run, except when the manual reverse is activated for the emptying of the tube.



Secondly, take a blister roll and place it on the roll-holder as shown in the picture. Insert the cardboard tube of the roll in the conic support of the roll-holder, with the tips of the blisters pointing downwards. Observe the instructions for turning the box onto the support included on the packaging of the blister roll.

Once positioned the blister roll, adjust it manually on the cardboard base, so it lies flat and is correctly positioned. Check there are no irregularities such as folds, segments rolled at different height, etc.



Remove the cellophane seal and unwind some blisters.



Press the key  in the main menu to open the die cutters and retract the poles, enabling the threading.

Place the blisters as in the following picture, passing the film between the two white guide bars and behind the horizontal stainless steel guide:



Pull the blisters manually till the opening of the first bag stands just below the filling needle or punch and the upper holes of the blisters match the poles (cylinders) of the horizontal guide.





Once checked, press again  , to close the die cutters and move the poles forwards, threading the machine. Release the blisters now.

If the poles do not enter the holes correctly, open the equipment and thread it again.

In case the height of the blister roll in the roll- holder becomes too high or too low, it is possible to adjust this level by loosening or tightening the support leg slightly.

**Important:** When opening and closing the machine, do not put your fingers or any other body part in the area limited by the guides and safety plates. There is risk of cuts and crushing.

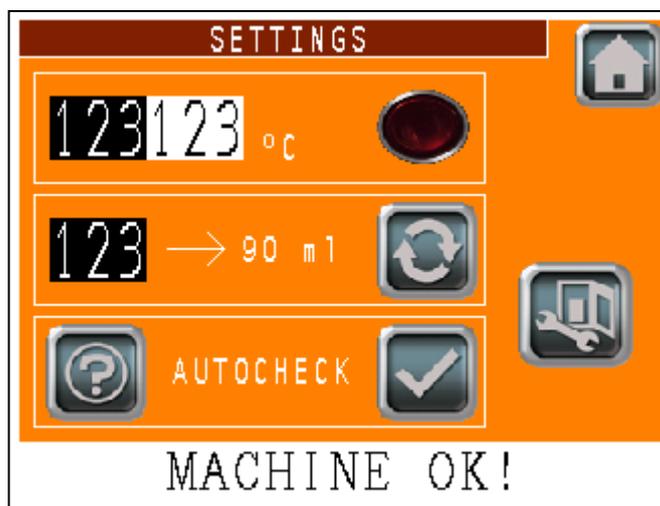


### Parameter adjustment during the run

Once threaded the blisters and placed the pump tube, check and adjust the basic run parameters for correct functioning, the sealing temperature of the blister and the calibration of the peristaltic pump. These adjustments are stored in the device memory so it is just necessary to adjust them once.



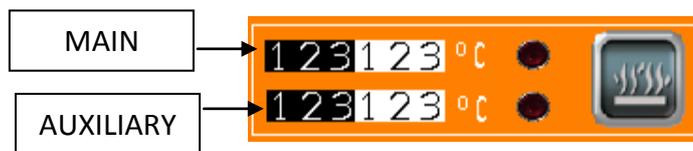
In order to make such adjustment, press the key  in the main menu of the equipment to reach the settings menu (SETTINGS):



In this menu for areas related to the different adjustments can be seen:

- Temperature adjustment of the main sealer and of the additional sealer.
- Activation of the additional sealer.
- Measure of the pumping volume.
- Error checking.
- System parameters checking.
- Manual inverted movement of the pump

First, the working temperature of the sealing clamp must be set.



The first value in black corresponds to the setpoint temperature of the main clamp, which must be set at around 160-170 ° C. The white box on the right shows the real-time temperature of the clamp.

The second black value corresponds to the set point temperature of the auxiliary clamp for the post-cervical format, which should be set at around 150 ° C. The white box on the right corresponds also to the real-time temperature of this auxiliary clamp.

It is advisable to wait until the setpoint value is reached on both clamps before starting work.



When pressing the button  the auxiliary clamp activates (provided that the machine is equipped with the auxiliary sealing mechanism). This option does not necessarily have to change the format of the blister (from 90 ml to 45 ml) when it is packaged in post-cervical format, since the equipment performs an additional sealing in the blister at half height, making the adaptation of the cavity to the packed volume.

Once the option is activated, the sealer will act automatically when a volume of less than 50 ml is introduced, and will stop acting when larger volumes are introduced.

For both seals, once activated, it is convenient to wait about 15 minutes for the set working temperature to be reached before starting to work.

**Important:** Before performing any maintenance task, turn off the equipment and wait 20 minutes. The clamp can cause painful burns.



For calibrating the peristaltic pump, first check that the tube HygiTube is installed in the machine.

Place a 5l. jug or container filled with approximately 2.5 L of distilled water or , best, with extender, on the extendible support. In case you use a larger container that cannot be positioned on the support, check the lowest level of the container is always at the same height as the peristaltic pump and perform calibration with an average volume to reduce the gravitational effect in the dosing.

Place the free end of the silicone tube on the bottom of the jug. It is recommended to use a weight or clamp to maintain the tube at the bottom of the container.

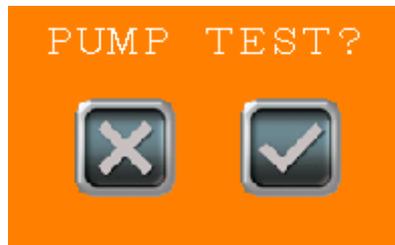
Remove the opposite end (that with a filling needle or punch) from the clamp and introduce it in a glass or small container to collect the fluid pumped.

Enter in the black number field the value of the time expressed in milliseconds during which the pump must rotate to dispense the working volume (represented in the white field). Typically, the values will be between 100 and 250 deciseconds.



Press the key  , to run a pumping test and check manually the volume dosed. The equipment asks for the command to be confirmed before starting to pump.

The calibration process consists of collecting and weighing the samples obtained in each test (discarding the first ones until the tube is purged). When the desired volume is reached with an accuracy of +/- 1 ml, the test will be finished.



The calibration will be extrapolated for the entire working range, so if the pump is calibrated for a volume of 90 ml, the calibration will be valid when entering 45 ml or 60 ml directly on the main screen, although of course the best results will be obtained by calibrating each volume separately.

Similarly to the temperature value, the calibration value is not deleted when you turn off the equipment but is stored in the memory of the machine. However, it is advisable to perform a daily revision and adjustment at the beginning of the day to ensure accurate dosage.

Note that level fluctuations in the fluid container may affect filling accuracy in a value under +/- 5 ml. Performing a correct adjustment and replacing the pump tube at least once a day contribute to improved dosing quality.

Normally, the volume difference between 2 consecutive doses is under 1 ml, but it is possible to notice a difference between the start and the end of a batch which is due to the level variation in the container.



Finally, pushing the button  you manually activate the inverse movement of the pump, of great help if it is desired to empty a filled tube or in cleaning processes.

**Important:** *The impeller of the peristaltic pump is a mobile element. Always close the cover when the peristaltic pump is running and keep body parts, as fingers or hands, away from the moving impeller.*



*Stop and/or disconnect the machine completely to replace the pump tube.*

Lastly, you can run an error auto-detection protocol, where the machine checks the correct position of the blisters and the absence of blockages or failures in the run.



Press the key  to start the protocol. During its progress, the machine does not execute other commands. The equipment performs a series of sequential movements automatically which result in the vacuum packaging of a blister. It is not absolutely necessary that the device has the blisters threaded, but it is advisable.

Any anomaly is notified at the end of the process through a short message, which appears on a pop-up bar at the bottom of the menu. In case everything is ok,



“MACHINE OK!” message will appear. In any case, the button  must be pressed to finish the protocol.



Finally the button  gives access to a screen where it is possible to check the useful parameters and indicators for the technical support and the maintenance of the machine. This screen is protected with the "SAT" password and it is recommended to access just in case of breakdown or technical anomaly.



Press the button  to go back to MAIN MENU.

### **Labeler device and label menu**

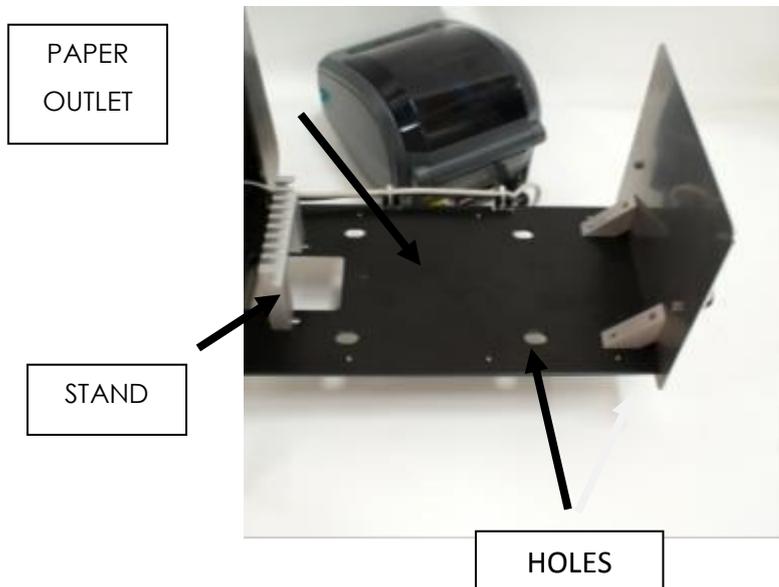
The labeling system of the BAGMATIC marks individual doses with all the information necessary and of interest for commercializing semen:

- Producer
- Stud code
- Boar identification or batch
- Breed or genetic line
- Packaged volume
- Packing date
- Expiry date

Codifying all the data of an animal in a barcode enables to automate the information treatment.

The labeler consists of a thermal printer (it does not require ink) Zebra GK420d installed on a removable tray and a vacuum label applicator.

Reaching the labeler is very easy. Extract the tray located on the low part of the right side of the machine. This tray is specially designed to install the printer model mentioned before, so it does not admit any other model.

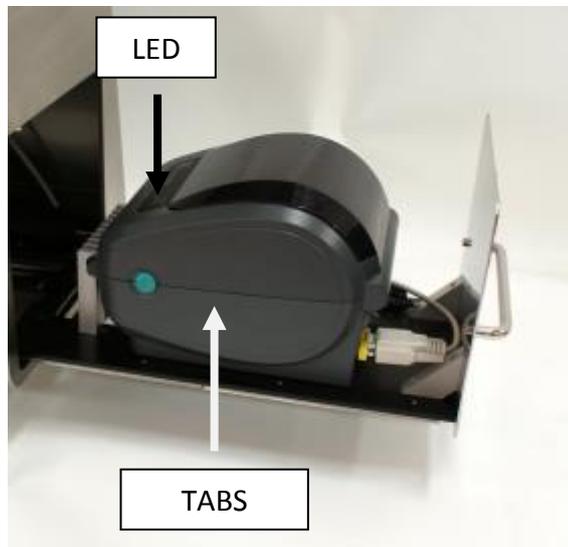


The labeler is installed inside the equipment to protect it from dirt, spills and other aggressions, reducing maintenance and adjustments. Nevertheless, it is necessary to consider the following for correct use of the system:

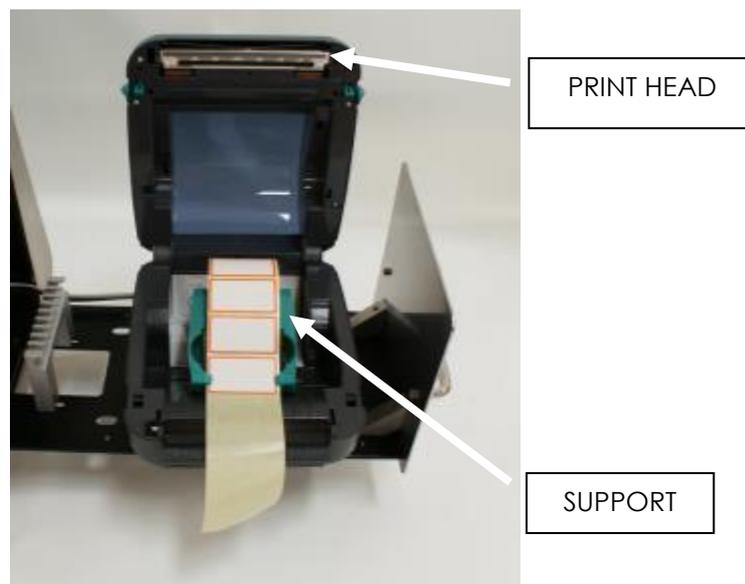
- Loading paper in the labeler GK420d
- Positioning the labeler on the tray
- Exit for paper excess

Loading paper in the labeler is the first step to run the device. The labeler is set up to use self-adhesive, thermal, paper-based labels of 50 mm width and 30 mm length. These labels are commercialized by Magapor S.L. in 1,250-piece rolls. Placing a new roll is very easy, just follow these steps:

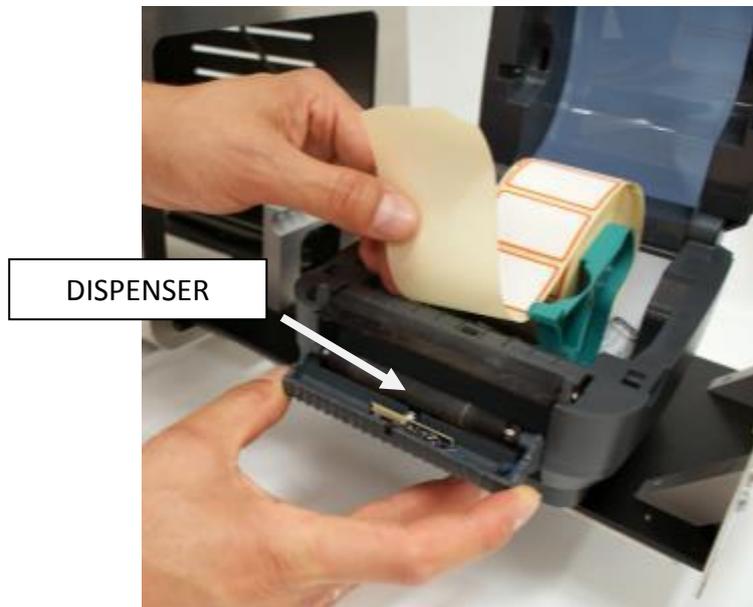
- Extract the support tray of the labeler to the stop buffer. Check it is connected to power (green LED lighted):



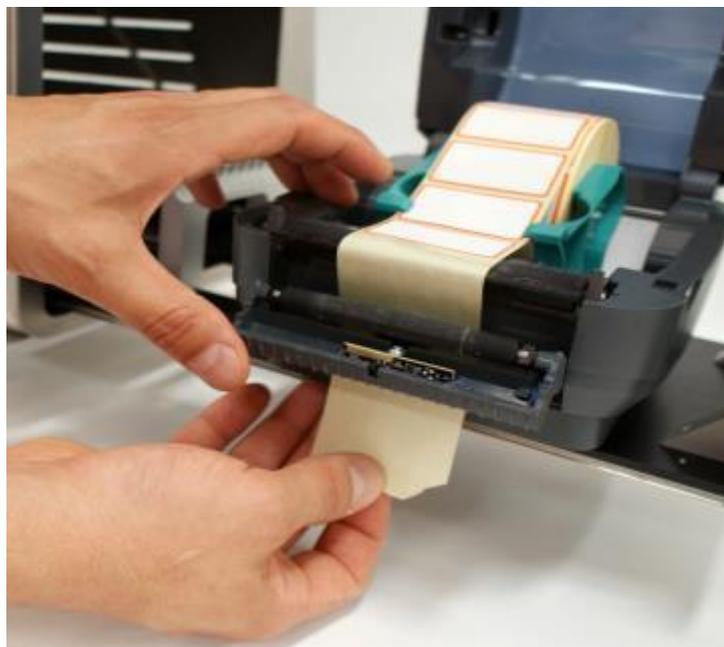
Press the green tabs at both sides of the labeler to open the cover. You can turn the tray as show in the picture in order to work more comfortably. Take a new label roll and remove the first three-four labels. Place the roll on the green support following the indications of the manufacturer of the labeler on the diagram printed on it:



- Open the dispenser as it is shown in the image below. The dispenser is the element of the labeler which detaches the label automatically, so, after printing, the base paper is driven down while the label is ready to be adhered:



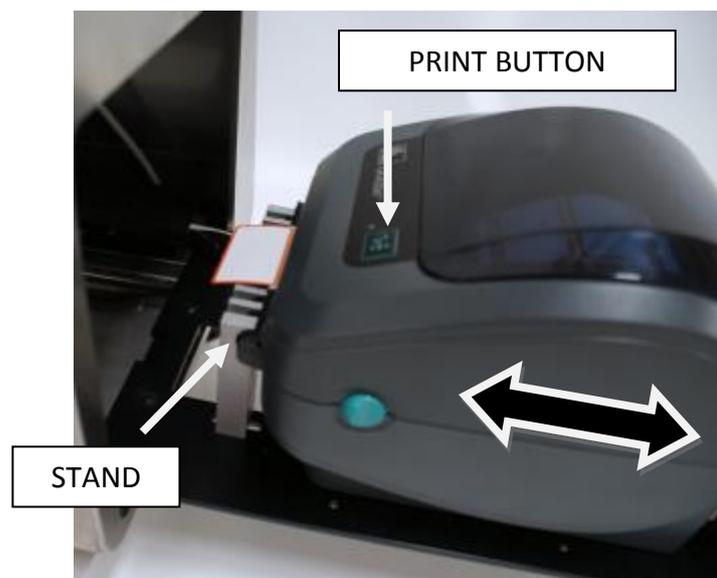
- Pull paper excess under the black roller of the dispenser as shown below:



- Press to close the dispenser, holding the paper tight and close the cover of the labeler:



- The status LED of the printer will blink after closing the cover. Press the manual print button to check labels come out correctly and are well positioned on the stand, as it is shown in the following picture (remove one label every time you press the button):



Positioning the labeler correctly is extremely important. The tray has four slightly grooved holes which should match the four support legs of the device. The grooved holes facilitate the entry and exit of the dispenser in the notch of the stand, so the labeler can be the closest possible to the stand and the printed label rests correctly on it till the applicator takes it.

After placing the labeler in its position, close the tray and check the base paper excess is disposed through the lower evacuation slot as blisters are labeled.

One of the main problems which may occur during labeling is the defective exit of paper excess, which may roll in the dispenser roller and block the printer.

Common print adjustments:

- Print width adjustment

Necessary when the labeler prints two labels at a time or when labels are not completely expelled after printing.

To adjust print width, press the manual print button till the led blinks twice. The labeler performs a self-adjustment protocol.

- Adjusting the print position

Necessary when the labeler prints out of the label area. To correct this problem, press the manual print button till the led blinks 5 times. The device will print a series of rectangles of increasing size. Stop the process when the rectangle obtained resembles the dimensions of the label (50x30) by pressing the manual print button again.

- Print contrast

Usually print contrast is set by default and is correct for the purposes of the equipment. If contrast is low, press the manual print button till the LED blinks 6 times. The labeler will print a series of samples of increasing contrast. Stop the process when the sample has the correct contrast for you by pressing the manual print button again.

For further information, read the user manual of the labeler GK420d, included in the CD enclosed to the user manual, or contact the Technical Service of Magapor S.L.

It is also advisable to replace the suction cup when it loses properties (usually once a year is enough) to prevent repeated failures and stops caused by defective application of the labels.

The labeler system, as well as the information that is printed on the labels, is controlled



from the label menu (LABEL). To reach this menu, press the button from the main menu :



The left part of the menu contains the alphanumeric fields corresponding to the following information in this order:

- Company name or origin center.
- Operating code.
- Boar code.
- Batch.
- Breed or genetic line.

On the right side lie the following buttons:

- Labeling activation or deactivation  .

- Manual printing  .
- Packaging date
- Packaged volume
- Expiry date

Of course, all the information is not compulsory. You may fill only the fields of your interest and leave the rest blank. The way an alphanumeric field is not printed is to leave it blank. In the same way if one or both dates

The fields containing the information of the boar appear on the label together with their corresponding codification in barcode (standard EN 128).

Finally, you can perform a print test before starting the packaging process to check the correct print of the alphanumeric fields inserted and the options activated. The manual

print button  will appear always the labeler tray is opened, so the user can see and take the printed label. The labeler prints a label each time you press the manual print.

To activate or deactivate dose labeling the button just have to be press  . Being activated it will illuminate.

It is advisable to check the base paper flows without problems over the bottom of the machine during the first doses after switching on the packaging process.

## Packaging activation

Once performed the previous steps related to the threading of the blisters, the installation of the pump tube, the calibration of the pump and the preparation of the labeler, you can run the packaging. All the parameters and commands related to the packaging process are controlled from the main menu.

Before launching the packaging, use the corresponding numeric display to enter the number of blisters to be prepared. Press the display to access a numeric keypad. Enter the desired amount within an interval of 1 to 999 blisters.



Similarly, you need to indicate dose volume for the blisters. Press the corresponding numeric display and enter a value from 1 to 150 ml. Users are responsible for entering a safe value which does not cause the fluid to overflow out of the blister format.



If necessary, use the arrow keys next to the display to adjust volume more accurately during the run, reducing or increasing it.

In the bottom part the following buttons can be found:

- Start and resume packaging button  
- Stop packaging button 
- Error reset button

- Error reset button 
- Manual pumping button 
- Die cutters opening button 

To start packaging, check the message "READY" appears in the message bar and press



the button .In this moment, the message will appear on the screen and the filling needle or punch will enter in the first blister and stop in such position, waiting for the user to fill the first blister manually. This operation is necessary because the tube is usually empty. There are two options:

- Purge the tube and add a dose to the total number of packages to be prepared.
- Purge and fill the first blister manually, accepting the probable human error in the estimation of the volume dosed.



To activate the pump manually, press and hold the pop-up button



After this operation, resume the run pressing the button . The machine will package the total number of blisters indicated on the main numeric display and show a real-time estimation of the total amount of packages already processed on the secondary display located on the top right corner.



It is possible to stop the packaging at any time by pressing the button . The machine stops after filling the current blister. The numeric display will update the number of pending blisters by subtracting the blisters already packaged from the total.



To resume the run, press again the button , starting as if a new batch was processed.

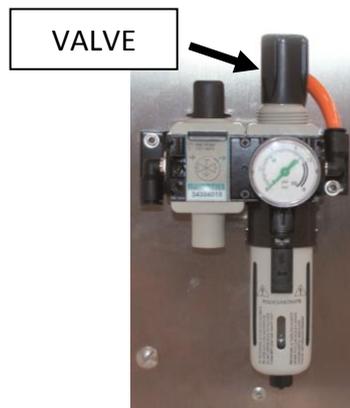
Outside the normal run, you can activate the emergency stop if the machine is blocked, overflows, misses blisters or a body part of the user is crushed or trapped.

The emergency stop is activated by pressing the emergency button. The system performs a controlled emergency stop, driving all the parts of the packaging mechanism to a safe point. The "EMERGENCY STOP" message appears in the message bar.

As it was already mentioned in the section related to pneumatic connection, pneumatic pressure can be released from the equipment using the safety slide valve to facilitate the restoration of the error or release a body part in case of accident.



**Emergency Stop Button**



**Safety Slide Valve**

Once solved the failure, the run can be resumed. Turn the emergency knob a quarter to release it, reestablish air pressure if necessary and press the pop-up button



in the MAIN MENU.

**Important:** During operation, some parts of the equipment (as the needle or punch holder, the drive poles that move the blisters and the die cutters) perform cyclic movements. Even though the machine features regulated safety measures and protections, we recommend spotting such elements and avoiding contact with body parts.



## Failures and anomalies during connection and packaging

The following anomalies may occur when connecting the equipment or during the packaging of the blisters:

- Blister shortage.
- Label shortage
- Blocked mechanism.
- Request for emergency stop.
- Low pressure.
- Power failure.

During packaging the most common failures will consist on shortages of blister or label rolls. In both cases the device will make a controlled stop as if the operator had never asked for a stop.

In each case, the corresponding message appears on the message bar:

"NO BLISTERS!" Blister shortage

"NO LABELS!" Label shortage



To solve either incidence, press the pop-up reset button  and replace the blister or label roll following the instructions provided in previous sections of this manual.

In case a mechanical component blocks during the run, the packaging stops. The machine acts driving the different actuators to a controlled emergency stop safe for the user and the blister in process. A message on the bar indicates the part of the machine that is blocked:

"CUTTER BLOCKED!"

"LABELLER BLOCKED!"

"TROLLEY BLOCKED!"

"HOOKS BLOCKED!"

"PIN BLOCKED!"

"LOW PRESSURE!"

"NO VACUUM!"

To resume the run, unblock the machine manually. Depressurize the equipment if



necessary and press the pop-up button , once solved the problem. Do not use force to solve the blockage.

Low pressure causes a situation similar to the blockage of a mechanism. If it occurs when the equipment starts, a specific message appears on the screen "CHECK PRESSURE", warning the user to check the pressure value and the line and position of the safety slide valve. If pressure descends during the run, the mechanisms block and the screen shows one of the messages mentioned before, depending on the exact time when the lack of pressure occurred.

A power outage disconnects the equipment immediately. This situation is not dangerous for the user if the precautions described in this user manual are followed, but could damage the blister currently under package at the moment. Electrical failures can be easily prevented installing an uninterruptible power supply that provides the equipment with energy in case of a long power outage.

### System menu and internal parameters

Press the MAGAPOR icon to reach an information screen containing all the contact details of the manufacturer in case of questions or technical problems:



### Obtaining data automatically through a barcode reader

The equipment can be connected to a barcode reader for transferring automatically the information of the batch to be processed by a USB port:

- Quantity of doses
- Volume
- Boar name or batch
- Breed or genetic line
- Packaging date

Information provided by the software Gesipor 2.0 (or higher) on a printed barcode after performing the analysis.

This way, preparation time and the possibility of human errors are reduced, because the information is not entered manually on the screen but automatically transferred when reading the code.

Connecting the barcode reader is very easy. Plug the USB terminal of the reader to the USB port of the machine located next to the control terminal. Once connected, the reader turns on and beeps to indicate it is ready to be used.

To put data into the device from a code, go to the barcode display, press the button



, and read the code. Then, data will be automatically entered and the user can check them by visualizing data.



The machine will update read data as work data by going back to the main menu and the device will be ready to start working regarding the new information.

The reader is optional but can be supplied together with the machine. Consult the Sales Department of Magapor S.L.

#### Connecting to Ethernet and Software Control Gesipor 3.0

The equipment can be connected via the Ethernet protocol to a network, so it is possible to access the supervision and remote control from any PC equipped with a web browser. In order to access the terminal remotely, it is necessary to previously acquire an access license.

In case you have the software Gesipor 3.0, it is possible to govern the equipment remotely without the need for an access license. Gesipor 3.0 allows you to send via Ethernet all the data needed to start packaging a particular batch, controlling not only one but multiple packaging machines (and dilution) connected in the laboratory network. For more information consult the seller or the technical service of Magapor S.L.

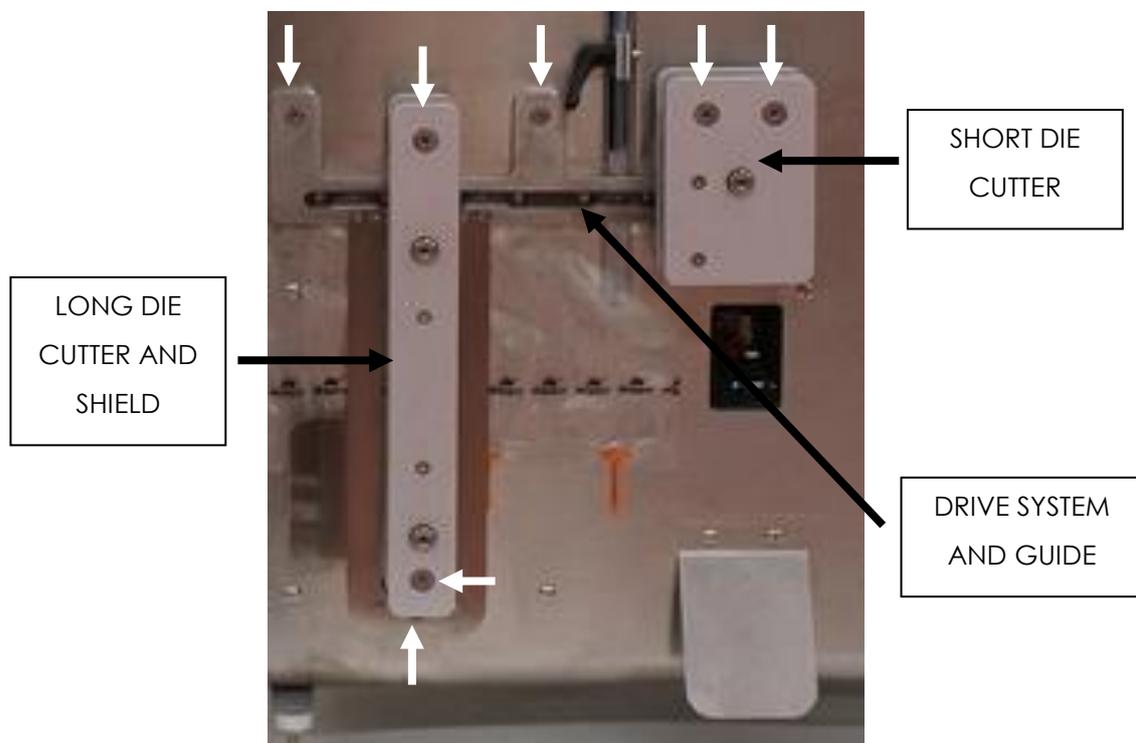
## Preservation and Maintenance

### Cleaning Advice

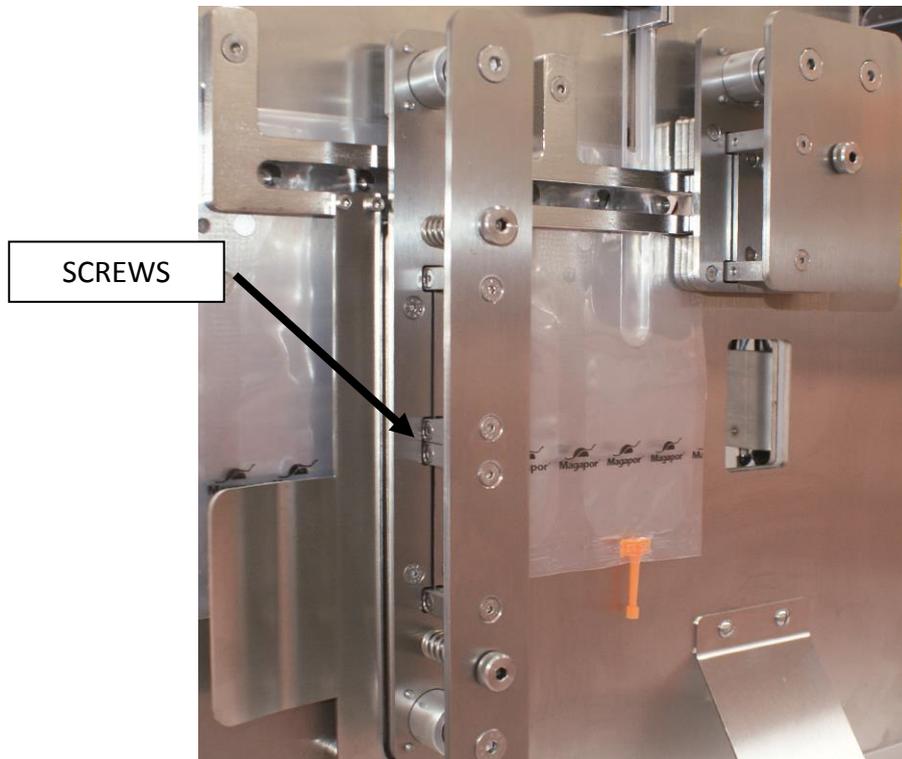
Do not use strong detergents to clean the equipment, use a soft scouring pad and dishwasher. For total disinfection, apply ethyl alcohol 70°, not rubbing stickers too hard. If cleaning the optical detector is necessary, use alcohol and cotton.

**Metallic pieces cannot be sterilized in an oven, because they include plastic or rubber parts that cannot be exposed to high temperature.**

Internal mobile parts are already lubricated so they do not require further maintenance. External mobile parts do not require lubrication. However, **it is recommended to disassemble and clean the die cutters, horizontal movement guide, shafts, bearings and cutting areas weekly** for better performance. Access to them is very easy: remove the four screws that join the mobile shafts to the two die cutters and the three screws that fix the guides to the front panel:



The blades incorporated in the equipment are subject to wear. It is recommended to replace when the cuts are suspected to become inaccurate. Replace them in the same number and position as the originals, disassembling the fix and mobile parts of each die cutter losing the screws that tighten each blade in its support.



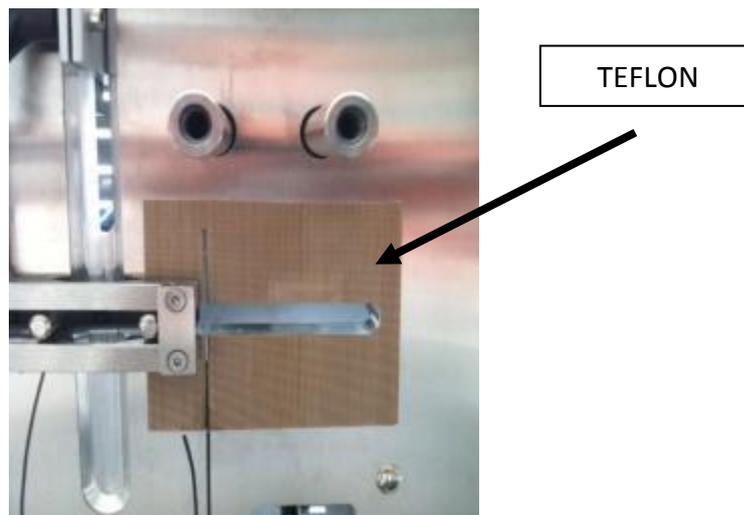
**Attention danger:** *manipulate blades with precaution during cleaning and replacement tasks. Such parts are very dangerous.*



It is advisable to replace the non-stick teflon coating that covers the cut area of the short die cutter and the sealing clamp every 6 months, always using material of the same quality and installing them in the same position as the original pieces.

This cover is essential to guarantee the right blister sealed and it loses its properties with the use.

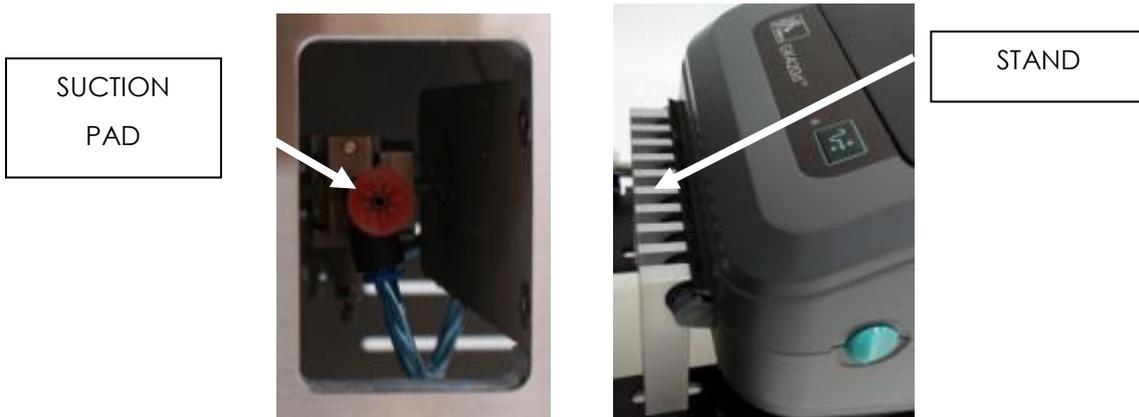
It is advisable to watch the covering state in the long die cutter area.



Check the area of the left die cutter for accumulated cellophane, which could affect the run of the machine.

Check the die cutters silicon and rubber templates are in good condition because they are essential elements to guarantee the cut and soften the impact.

It is recommended to replace the label suction pad at least once a year. This component loses properties with use:



Once a week, remove dirt and rests of adhesive from the label stand rubbing with alcohol. When dirt or the adhesive accumulates on the stand, labels may adhere to it and the suction pad is unable to take them. Placing a teflon cover may be advisable to avoid cleaning.

Keep clean the print head of the labeler GK420d using the cleaning pen included.

The interior of the machine does not require any maintenance routine. Occasionally, blow with compressed air and clean with a wet cloth to remove dust, plastic chips and fluids that could have spilled during packaging.

If the equipment is not to be used for a long period of time, keep clean and dry and disconnect power and the pressure input.

Do not hit, drop or spill fluids on the equipment.

**Warning danger:** Before performing any authorized maintenance task , check the area or components to be manipulated are disconnected from electrical power. Also make sure that electrical components, such as resistances, are not warm.



**Warning danger:** Before performing any authorized maintenance task, check the area or components to be manipulated are not subject to pneumatic pressure.



## Technical Specifications

Voltage and frequency \_\_\_\_\_ 110 - 230 V / 50 - 60 Hz

Maximum nominal power \_\_\_\_\_ 200 W

Maximum start intensity \_\_\_\_\_ 4 A

Pressure input \_\_\_\_\_ 6 – 8 bar

Maximum air consumption \_\_\_\_\_ 30 l/min a 5 bar

Output \_\_\_\_\_ 900-950 blister per hour

Autonomy \_\_\_\_\_ 1,250 until roll

Sealing temperature typ./max \_\_\_\_\_ 160/180 °C +/- 2 °C

External dimensions \_\_\_\_\_ 120 x 84 x 40 cm

Approx. empty weight \_\_\_\_\_ 85 Kg

### Working Conditions:

- Indoor use in laboratories
- Room temperature 5 – 40°C
- Maximum altitude 2000 m
- Relative humidity from 80% at 31°C to 50% at 40°C
- Maximum power fluctuations +/- 10%
- Transient overpower category II

## Troubleshooting

Problem	Possible cause	Solution
Machine does not start (the screen does not turn on).	<ul style="list-style-type: none"> <li>A. Wrong voltage.</li> <li>B. Blown fuse.</li> <li>C. Defective cord.</li> <li>D. Inner failure</li> </ul>	<ul style="list-style-type: none"> <li>A. Check voltage is in the range 110 230 V.</li> <li>B. Replace fuse.</li> <li>C. Replace cord.</li> <li>D. Contact the Technical Support Service.</li> </ul>
The equipment does not obey any run command (Open, Start, Autocheck...) or stops after starting the packaging process.	<ul style="list-style-type: none"> <li>A. Low pressure.</li> <li>B. Initialization failed.</li> <li>C. Incompatible or wrongly thread blisters.</li> <li>D. Inner failure.</li> </ul>	<ul style="list-style-type: none"> <li>A. Check pressure value on the filter gauge (5 bar).</li> <li>B. Check all the elements are in the correct position and the emergency stop button is not locked.</li> <li>C. Check blisters are compatible with the machine and correctly placed.</li> <li>D. Contact the Technical Support Service.</li> </ul>
Defective cut.	<ul style="list-style-type: none"> <li>A. Low pressure.</li> <li>B. Worn or wrongly installed blades.</li> <li>C. The rubber pieces of the die cutters are worn out or old.</li> </ul>	<ul style="list-style-type: none"> <li>A. Check pressure value on the filter gauge (5 bar).</li> <li>B. Check the blades.</li> <li>C. Check the status of the rubber pieces.</li> </ul>

<p>Blisters block after the first cut (left die cutter).</p>	<p>A. Accumulated cellophane on the cutting area.</p> <p>B. Dirty bearings and shafts.</p> <p>C. Wrongly placed blade</p> <p>D. Shield is not installed.</p> <p>E. Blocked or broken ejector.</p>	<p>A. Disassemble the die cutter and guides and clean.</p> <p>B. Clean the bearings and shafts.</p> <p>C. Check the position of blade.</p> <p>D. Place the shield.</p> <p>E. Contact the Technical Support Service.</p>
<p>Blisters block after the second cut (right die cutter).</p>	<p>A. Accumulated dirt on the cutting area.</p> <p>B. Dirty bearings and shafts.</p> <p>C. Teflon in bad condition.</p> <p>D. Wrongly placed blade.</p>	<p>A. Disassemble the die cutter and guides and clean.</p> <p>B. Clean the bearings and shafts.</p> <p>C. Replace teflon correctly.</p> <p>D. Check the position of the blade.</p>
<p>Sealing is defective or non-existent.</p>	<p>A. Low temperature.</p> <p>B. Worn out clamp silicone or teflon.</p> <p>C. Blown cartridge heater.</p> <p>D. Activation relay fails.</p> <p>E. Temperature control failure.</p>	<p>A. Check temperature (160°C).</p> <p>B. Check the status of teflon and silicone.</p> <p>C. Replace the cartridge.</p> <p>D. Replace the relay.</p> <p>E. Contact the Technical Support Service.</p>

<p>The peristaltic pump does not work.</p>	<p>A. Hard or incorrectly placed tube. B. Activation relay fails. C. Failure of the pump engine or reducer.</p>	<p>A. Use a silicon tube. Check its position. B. Replace the relay. C. Contact the Technical Support Service.</p>
<p>Defective labeling (no label or incorrectly placed).</p>	<p>A. Low vacuum pressure. B. Label failure. C. Old or worn out suction pad. D. Vacuum switch failure.</p>	<p>A. Check pressure value on the filter gauge (5 bar). B. Check the labeler is well placed and print is correct. C. Replace the suction pad. D. Contact the Technical Support Service</p>
<p>Condensed water/oil in the air filter beaker.</p>	<p>Water excess accumulated in the tank of the compressor unit.</p>	<p>A. Purge compressor unit periodically. B. Install a dehydrating filter.</p>





### **Magapor S.L.**

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