ENOITALIA

ENOLOGICAL EQUIPMENTS

User instructions and technical manual
Semi-automatic filling machine for

Bag in box

“BB 20”

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ATTENCTION:
This manual must be kept near the machine and in a place known to the personnel assigned to use, maintenance and repair operations

INTRODUCTION

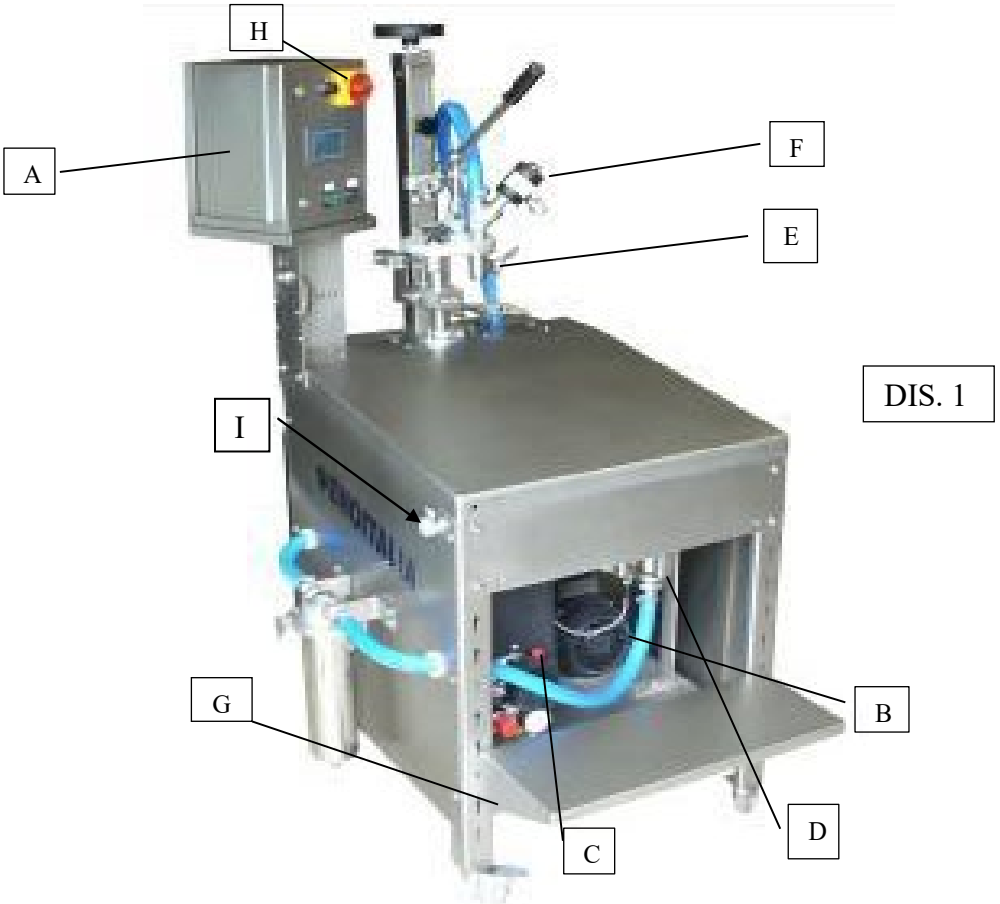
WARNING!

Before installation carefully read the instructions given below, since this manual constitutes anessential part of the machine.
This machine is recommended for filling bags in plastic material with liquids destined for humanconsumption such as: WINE, MILK, WATER.
It is not suitable for pumping inflammable liquids or for use in environments with petrol,concentrated acids or solvents.
The Manufacturer declines all responsibility for damage deriving from improper use of themachine, or from failure to observe the instructions provided in this manual.

1. DESCRIPTION

The machine is composed of the following components (photo no.1):

- Main control panel (A), made in pvc or stainless steel, with touch screen display, masterswitch (H), start and stop buttom, speed switch for frequency inverter (option)
- Stainless steel pump with rubber impeller (B)
- Electric compressor(C)
- Flow sensor (D)
- Filling head (E) composed of a pincer for extracting and inserting caps, and by a filling cylinder fitted with pneumatic valve (F) and predisposition for air extraction and nitrogen injection system) (see photo no.3).
- Stainless steel trolley with castors and adjustable shelf for resting the boxes (G).
- Start buttom for filling (I).



DIS. 1

WARNING!

Before performing any inspection or maintenance procedures turn off the electricity anddisconnect the plug from the electrical socket.

The machine has been designed for filling bags by setting the desired quantity of liquid on the display. The air is extracted from the bag automatically. The cap is extracted and subsequently replaced by means of a stainless steel pincer, manoeuvred manually by the operator, without the need to move the bag. The electronic system makes it possible to manage the functioning of the pump,

compressor, sealing valve, air extraction and nitrogen injection valves so that all the operations take place in the right order and with the right timing.
The filling machine has been designed for use by qualified personnel, given that it could constitute a source of danger to people. Do not leave the machine unsupervised when in use.

FILLING HEAD FOR HOT JIUCE

STANDARD FILLING HEAD

NITROGEN

VACUUM

2. POSITIONING, CHECKING AND INSTALLATION

The machine should be placed on a firm, flat surface and blocked in place using the brakes on the front castors.

2.1 PRELIMINARY CHECK The machine is supplied packaged and placed on a pallet, ready for use. Once you have removed the packaging make sure that all the components are intact and inform the supplier, if necessary, of any evident defects. Together with the machine you'll receive this instruction manual which forms an essential part of the same.
Check manually that the filling arm is not blocked, and if necessary free it of any obstacles preventing its movement.

2.2 PRE-INSTALLATION CHECK: Before connecting up the machine make sure that the mains voltage corresponds to that of the machine, as indicated on the data plate of the pump motor.
The electrical safety of this machine is only ensured if it is connected to a functioning earthing connection system, installed in conformity with current electrical regulations. Checking and installation of relevant electrical components must be performed by qualified personnel. The use of multiple plugs or adaptors is not recommended; should the use of such be indispensable only use products conforming to current safety standards, observing the current capacity and maximum power limits shown

2.3 INSTALLATION. Position the machine on firm ground beside the wine storage tank and block itin place using the brakes on the front castors.

Then connect the pump to the tank using the decanting tube. The tubes should be of the rigid and reinforced type, and should be attached to the pump using hose clamps for the purpose, making sure that there are no bottlenecks which might prevent the regular flow of liquid.
It is important to use the hose clamps in that they ensure the correct functioning of the pump and prevent leaks of liquid which might cause damage to the pump itself or to those surrounding it.
One of the standard fittings installed on the pump is a hose connection fitting for tubes of d.20; upon request the pump can be supplied with a hose connection fitting of d.30. The use of decanting tubes of dimensions other than those indicated is not recommended in that they might impair the proper functioning of the machine.

Proceed by checking that the switch on the control panel is in the central "0" position, and connect the power supply cable of the control panel to the electricity socket.
At this point the compressor should start to move; if it does not, open the air release tap situated above the compressor and close it again as soon as the compressor starts. If the compressor still fails to start check the values indicated on the pressure gauges situated on the compressor and if they indicate zero press the start button on the front of the compressor itself.
The compressor stops on its own as soon as it reaches the pressure in the tank. (with reference to the maintenance operations of the compressor see the attached compressor manual).
Open the valve or the tap which the decanting tube is connected to, so as to enable the tubes to fill up partially.

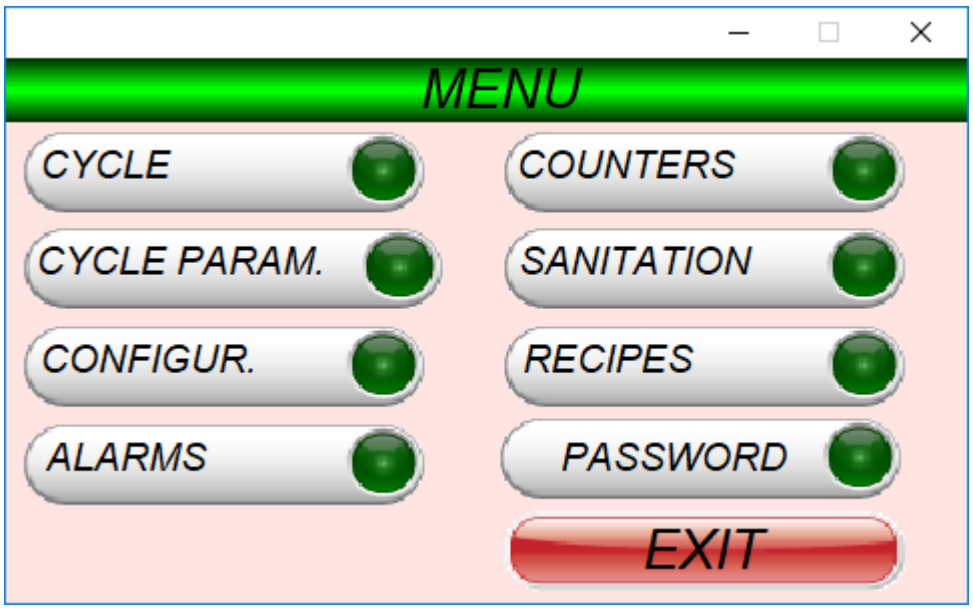
2.4 TURNING ON THE MACHINE AND FAMILIARISING WITH THE CONTROL PANEL

The panel control is composed of:

1) General switch (**I** ON – **O** OFF)
2) Start switch (start the filling)
3) Stop / Reset switch (stop the machine and reset all the value)
4) Plc display

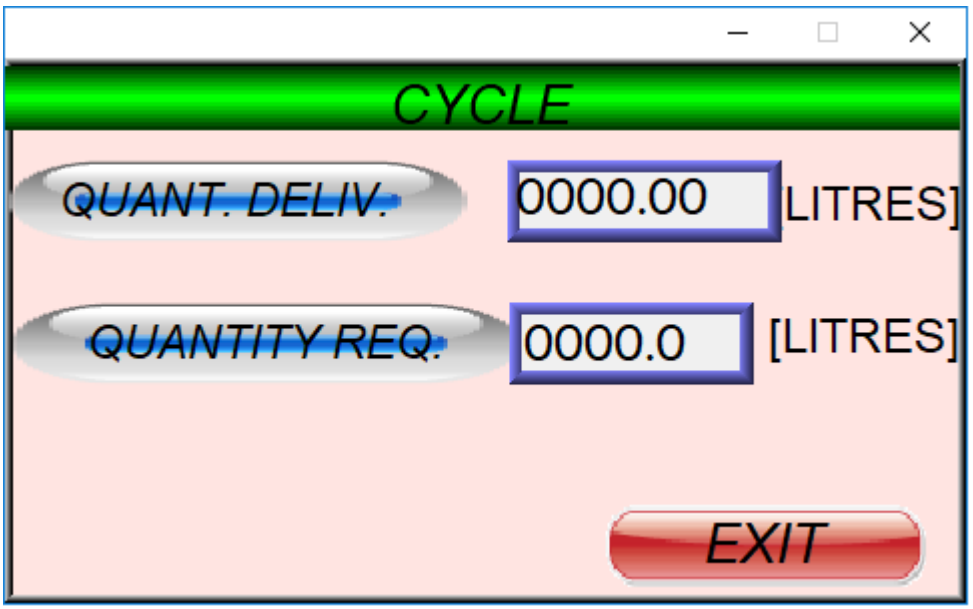
Turn on the machine by switching the red switch on the control panel to position “1”. After a fewseconds the screen of the electronic panel will light up, press MENU and showing DISPLAY No. 1.

DIS.2



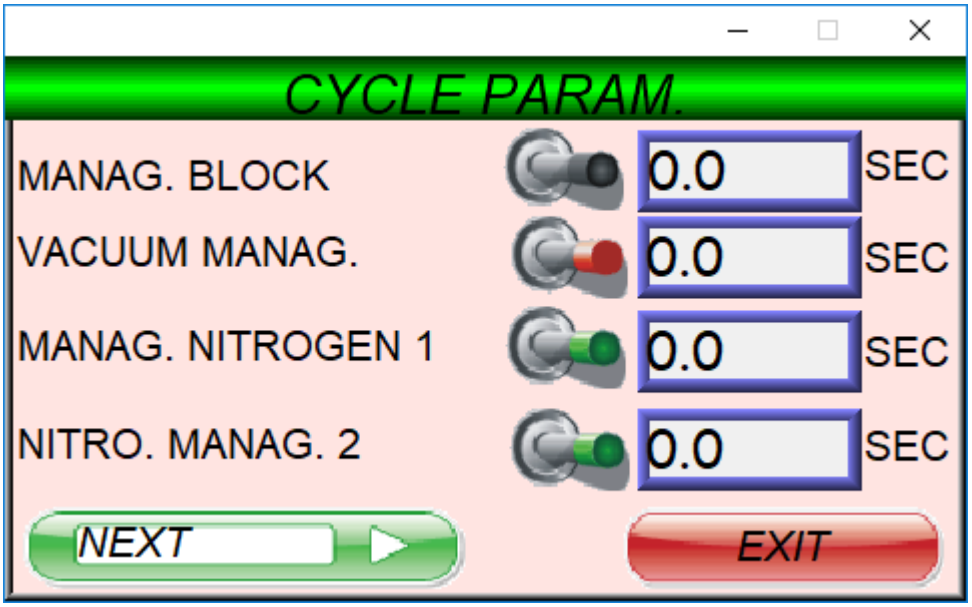
Select the option CYCLE , and the following screen will appear with the values to be set:

DIS 3



Select the option CYCLE PARAMETER on the first screen, and the following screen will appearwith the values to be set:

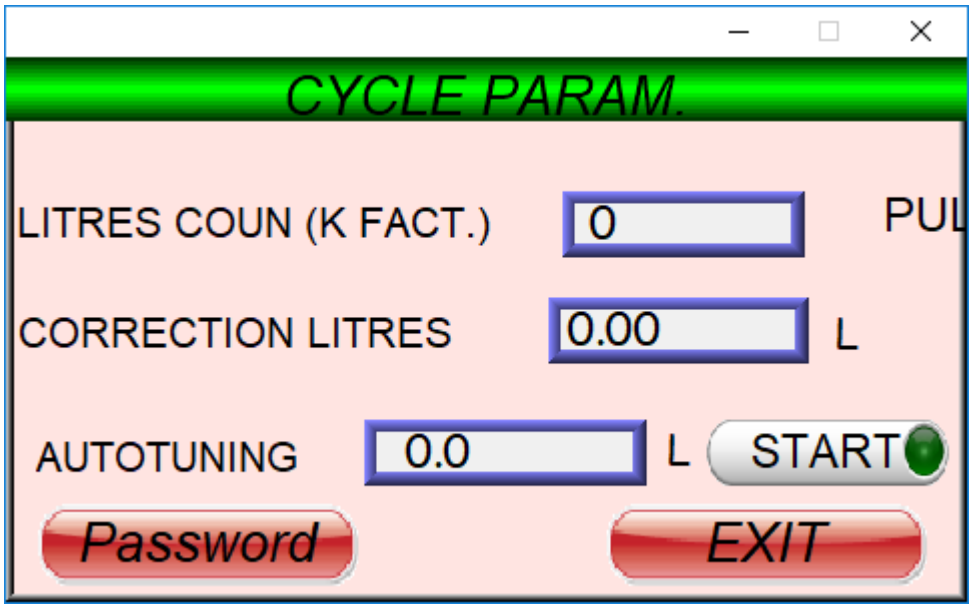
DIS. 4



- MANAG. BLOCK: it is a parameter that allows to control the lock piston of the filling head, allowing you to disable it if necessary. WARNING: We suggest you contact technical supportbefore changing this parameter
- VACUUM MANAG.**:** it indicates the vacuum time applied on the bags. You can set how many seconds vacuum..
- MANAG. NITROGEN 1: it indicates the nitrogen injection time applied to the bags at the beginning of the filling.
- NITRO. MANAG. 2: it indicates the nitrogen injection time applied to the bags at the end of the filling.

Press NEXT to see the second screen:

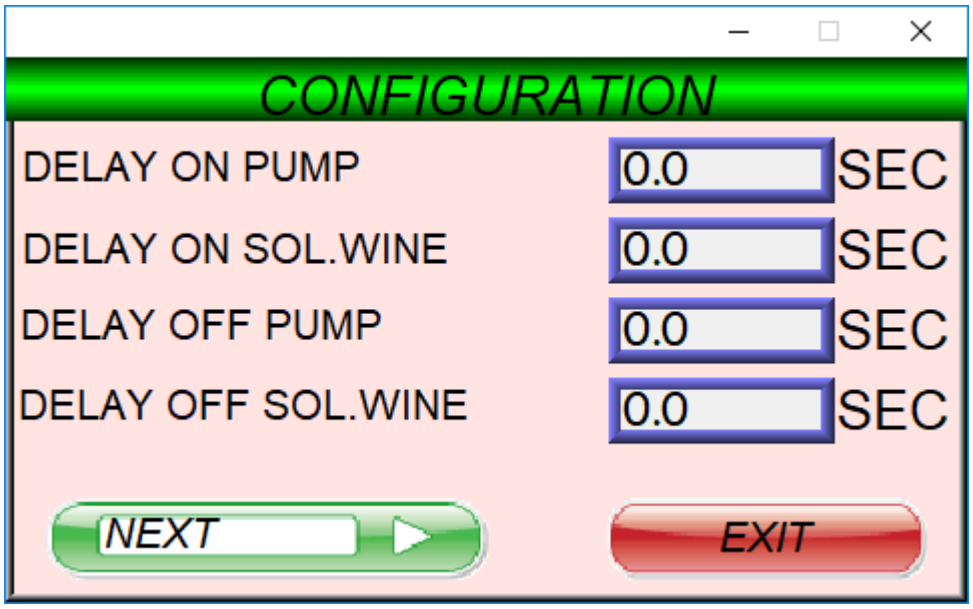
DIS. 5



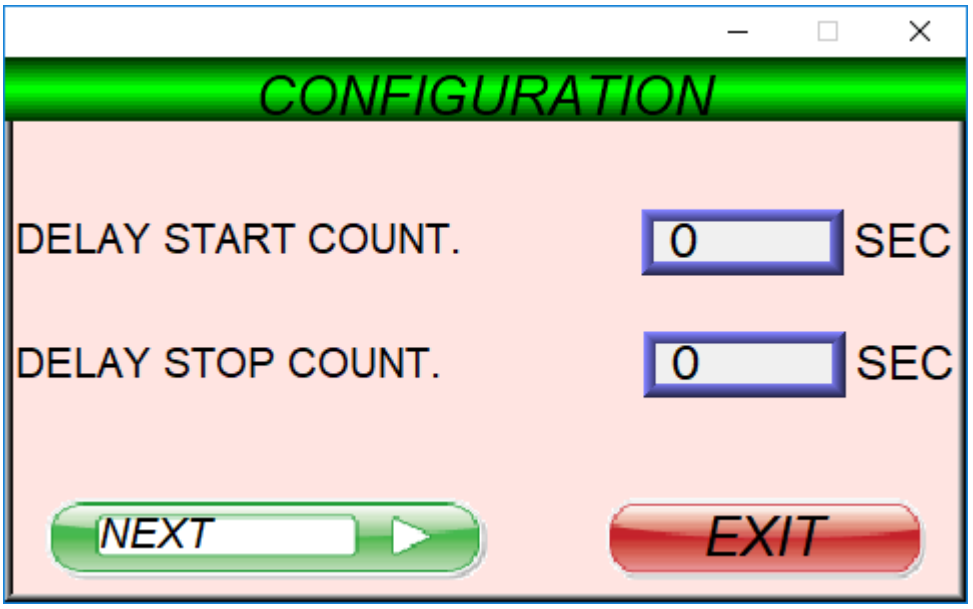
- LITRES COUN (K FACT.): it is the parameter that allows for calibration of the meter, settingthe pulses per liter
- CORRECTION LITER: it is the parameter for a fine calibration. Must be used to correct values under 0.15 lt
- AUTOTUNING: This parameter allows you to automatically calibrate the instrument after a first filling. To access this section, the operator must first enter a password (see dis17). Then you must enter the value of the quantity actually filled and not the quantity required (for example, if you selected a quantity of 5 liters and after the first filling you get a value of 4,850, the operator has to type in the value of Autotuning 4,850). Press START. The machine automatically performs the calculation and modification of the K values. At this point it is possible to make a second filling..
- PASSWORD: it is used to enter in AUTOTUNING see DIS. 17

Select the option CONFIGURATION , and the following screen will appear with the values to be set: **ATTENTION: All the following parameters are password protected entry. Before you can access and modify the parameters notify the technical assistance and agree on appropriate changes**.

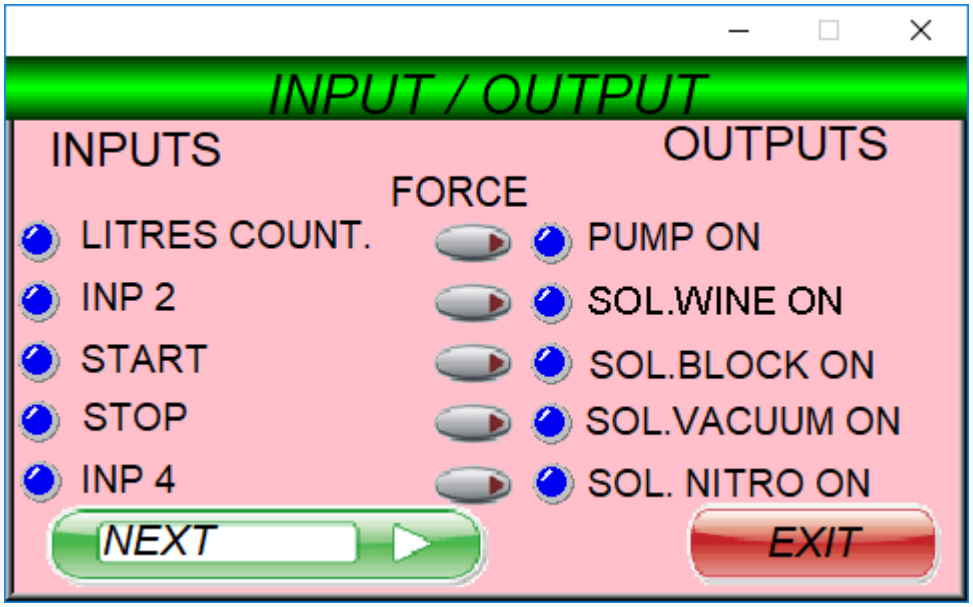
DIS. 6



DIS. 7



DIS. 8

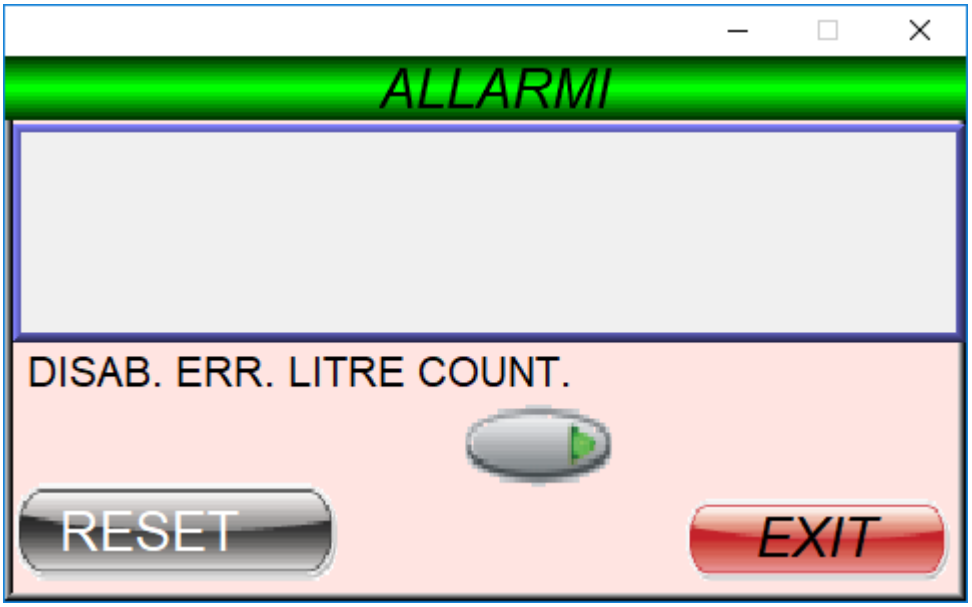

INPUT / OUTPUT
INPUTS
OUTPUTS
FORCE
LITRES COUNT.
INP 2
START
STOP
INP 4
PUMP ON
SOL.WINE ON
SOL.BLOCK ON
SOL.VACUUM ON
SOL. NITRO ON
NEXT
EXIT

DIS. 9


OPTIONS
Language
1
View icons
0) Italiano
1) Inglese
2) Francese
3) Spagnolo
4) Tedesco
5) Croato
6) Russo
7) Ceco
EXIT

Select the option ALLARM , and the following screen will appear with the values to be set: inthis area it is possible to cancel the alarm connected no-liquid inside the machine

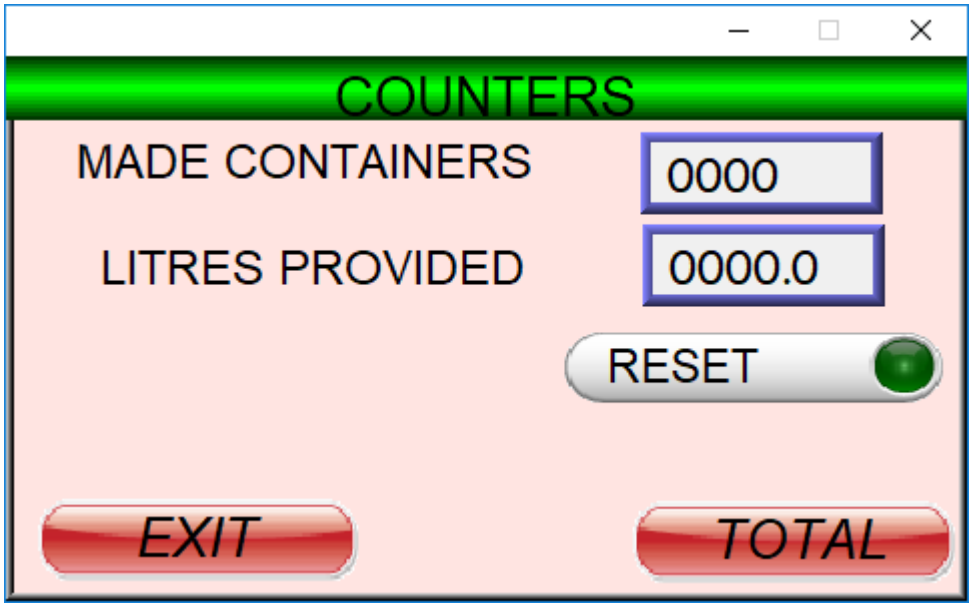
DIS. 10



:

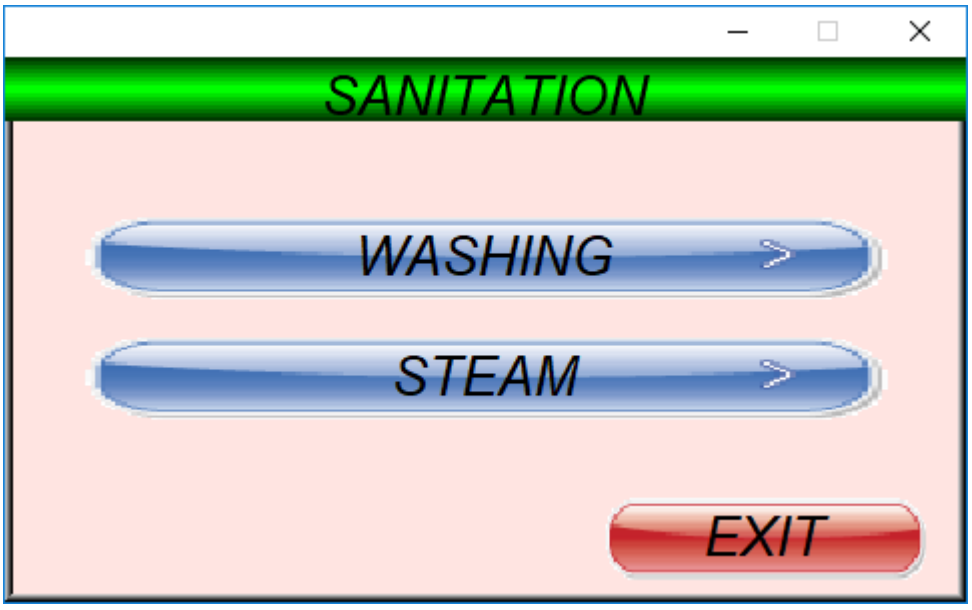
Select the option CONTATORI , and the following screen will appear with the values to be set:it display the number of the bags filled and the total of the liter

DIS. 11



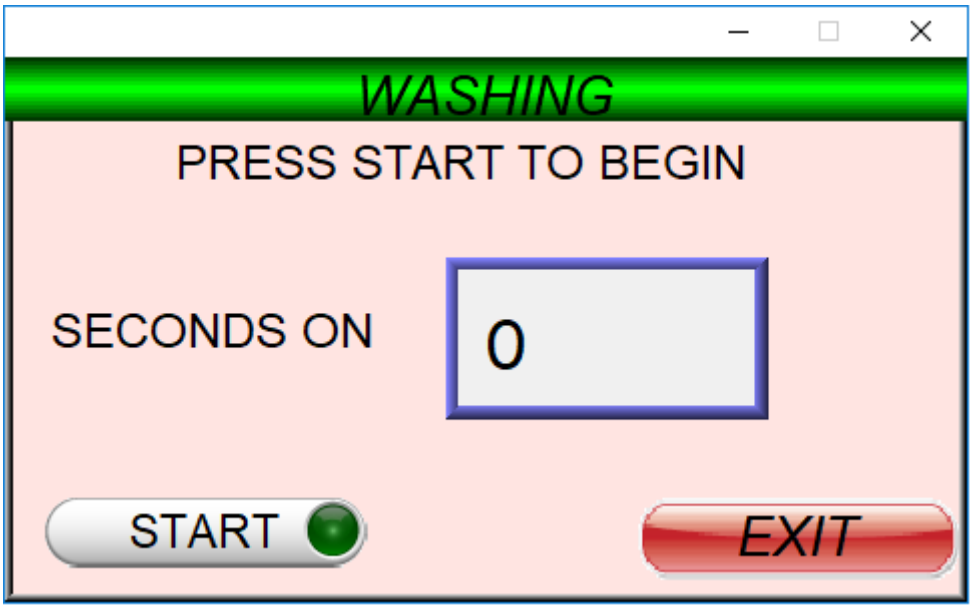
Select the option SANIFICAZIONE , and the following screen will appear with the values to beset: the user has to choose which type of cleaning to use

DIS. 12



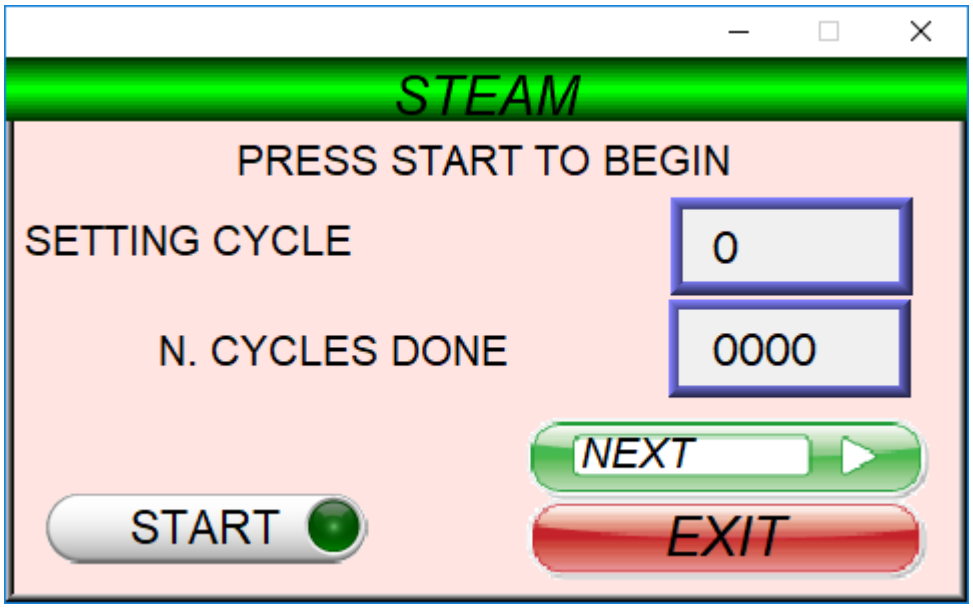
If prefer clearing with liquid select WASHING: he can use hot liquid or chemicals. Press Start and the machine begin a washing cycle. The display indicate how many second isworking

DIS. 13

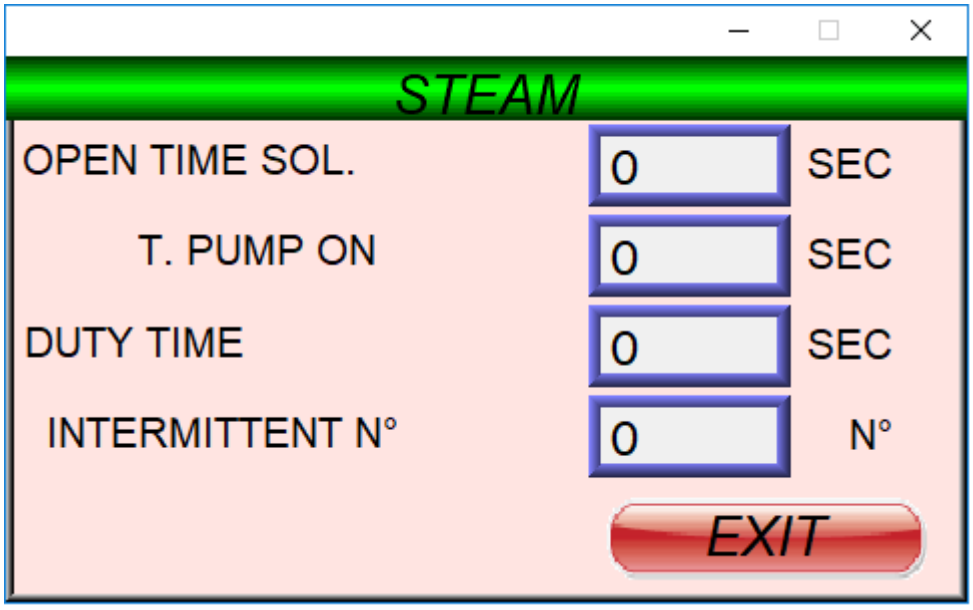


If the user select STEAM, the following screen will appear with the values to be set.

DIS. 14



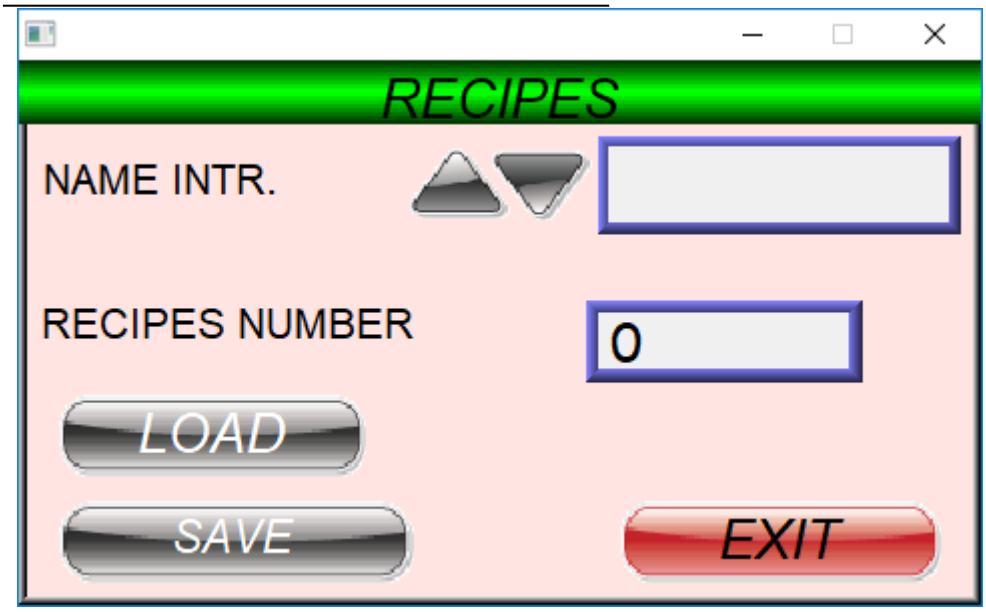
DIS. 15



The operator must set the number of cycles to perform, while the values of the duration of the various phases is already set at the factory. These values are editable on the basis of specific requirements. After connecting a machine steam generator to the inlet fitting of the pump, start the generator machine and start the sanitation program.

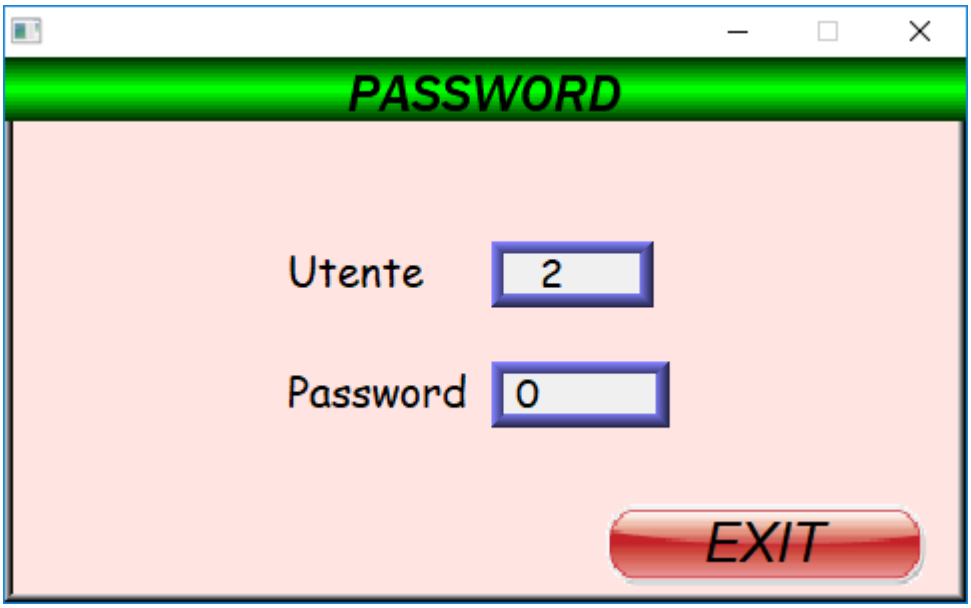
Select the option RECIPES , and the following screen will appear with the values to be set : after the setting of all the previous parameter , it is possible store the values combining them with a recipe thatcan be recalled at a later time.

DIS. 16



Select the option PASSWORD, and the following screen will appear with the values to be set : following we have indicate the value of UTENTE and the PASSWORD to be used to enter inside the protected menu

DIS. 17



3. ADJUSTMENT

For the correct functioning of the machine and verification of filling precision a scales or graduated recipient is needed.

The parameter used to adjust the filling is “LITERS COUN, K FACTOR» while the “CORRECTIONLITERS ” parameter is for the fine-adjustment of filling.
The K factor expresses a measure of “steps” used by the sensor to measure 1 litre of liquid decanted. This factor varies in relation to the type of fluid to be decanted, the type of pump used, the length and diameter of the tubes and the pressure exerted by the liquid inside the tubes. At the moment of purchase of the machine the K value is set at 160; this value should be INCREASED if the weight of the bag being filled is less than the theoretical weight of the quantity to be filled. Vice versa it should be REDUCED if the weight of the bag being filled is more than the theoretical weight to be filled.
The adjustment of the K factor depends on the size of error: **only adjust this parameter if the error is more than ± 500 g**. In these cases adjust the K value by 5 to 10 units, repeat the filling procedure and check the weight obtained.

If the error is less than 500 g, the “COR.O” parameter should be adjusted: **increasing this value** (and therefore attributing a positive value to it), the quantity of liquid in the bag is increased vice versa **decreasing** such value **(**and therefore attributing a negative value to it), the quantity of liquid inthe bag is decreased
N.B. to set negative values press the “C” button, and the symbol “-“ will appear on the display, then set the desired value.
The size of this parameter must always be less than that of the K factor set, in that otherwise it is better to adjust the K factor and make slight corrections using the COR parameter. In this case too the variations to apply depend on the size of the error, but should always be 5/10 units at each attempt.

4. FILLING

4.1 FIRST USAGE AND WASHING

Before beginning filling THE FIRST TIME THE MACHINE IS USED preliminary washing of the machine is recommended to remove any manufacturing residues and to sanitise the tubes.
With the machine turned off and unplugged, fit the stainless steel adaptor into the prong holding the bags, and attach a tube to the hose connection blocking it in place with appropriate hose clamps. Fit a tube into the pump. Close the by-pass of the pump (turn it to a perpendicular position in relation to the body of the pump). Immerse the tubing in a tank containing 20 litres of disinfectant solution (we recommend citric acid) or clean water, so as to create a circuit.
Now plug in the control panel to the electricity supply and turn on the machine. Select the parameter SANIFICATION, and then the option WASHING.
Lower the filling head so as to insert it inside the inox adaptor (it is supplied with the machine) and press the START button. The pump will begin to function and the liquid will go into the tubes coming out a few seconds later from the drainage tube previously installed. Press STOP to arrest the cleaning .

If you wish to terminate the wash cycle, the tubes need to be emptied. To do this just turn on the machine for a few seconds taking care to extract the feed tube from the washing solution. This operation must be brief (maximum 5 seconds) so as not to damage the functioning of the pump.
To stop the machine press the STOP/RESET button.
To completely empty the tubes from any residues of liquid, disconnect the drainage tube from the pump.

This WASHING operation must be repeated at the moment of putting the machine away in storage, or whenever it has not been used for long periods of time. In this case the application of a few drops of glycerine inside the pump body is recommended to keep the rubber impeller inside lubricated.

4.2 FILLING.

Place the plastic bag on the prong with the cap inserted, as shown in photo no.4.

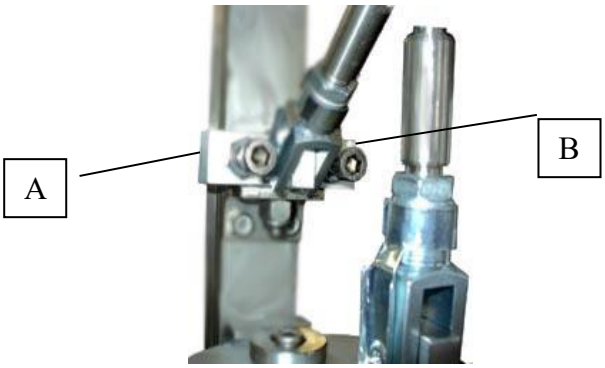
N° 4

N°5

Adjust the height of the prong in relation to the shelf of the filling
machine so that once the bag has been filled, the level of the liquid inside the bag reaches the plastic top of the same. This will make it possible to reduce the amount of air inside the bag, should nitrogeninjection not be used.

Lower the filler head so that the extraction pincer adheres to the cap without difficulty. If necessaryturn the head using the handwheel, so as to prevent obstruction in extraction of the cap.
After the cap has been extracted, turn the filler head to the left and insert the filling cylinder insidethe bag.
If this operation should prove difficult because the head is not central to the plastic seat, adjust thetwo screws A and B situated high up on the support column (see photo no. 6)

N°6



Set the quantity of liquid to be filled, the seconds of depression and if applicable the seconds ofnitrogen injection on the electronic display. Do not change the adjustment parameter values.
Make sure that the compressor is working as indicated in the INSTALLATION section.Turn on the machine by pressing the START button.

If the machine is stop during a filling pressing the switch Stop/Reset, when the machine is start again, i twill be finish the last filling.. If the switch Stop / Reset is pressed a second time the machine will start from the beginning a new filling.

The filling head , is supplied with a mechanical system that allow to block it during the filling. This system allows the worker to do a different operation while the machine is working.

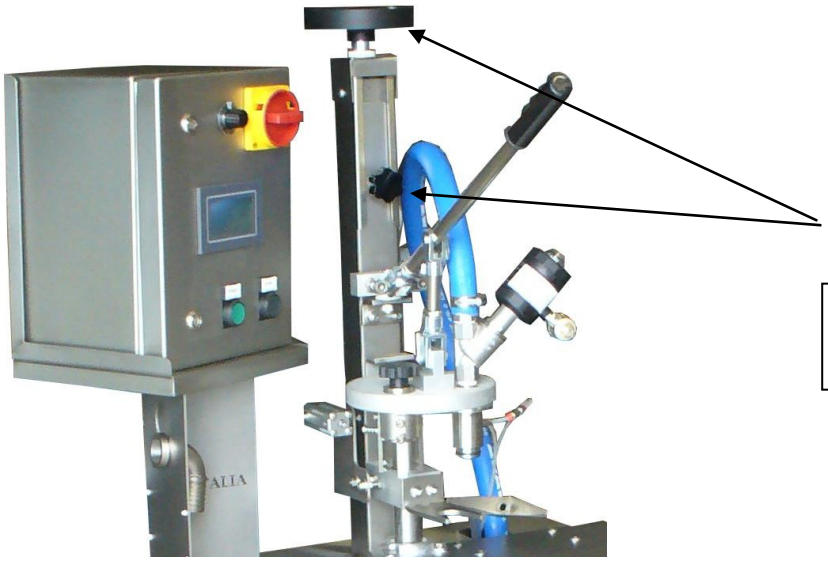
WARNING!

During the first start-up, when the tubes are empty, put the by-pass valve of the decanting pump in the CLOSED position. Once the first filling has been completed and the tubes are therefore all full, it is recommended that you switch the by-pass valve to the OPEN position so as to reduce the possibility of the formation of froth in the decanted liquid.

The machine will extract air from inside the bag for the seconds set and subsequently will begin filling. On reaching the set quantity the machine will stop, blocking the pump and closing the valve. If nitrogen injection has been selected it will inject the nitrogen for the seconds set after which the nitrogen valve will also close.
Upon termination of filling, extract the head and insert the cap using the pincer for the purpose.The bag is then ready to be put in the cardboard box.
At this point check the weight and if necessary modify the values of the K and CORR parameters, as indicated in the ADJUSTMENT section. To such purpose, until the correct value of the correction parameters has been determined we recommend the use of temporary caps, so as to be able to empty the bags easily.
Once the correct values have been set the machine will repeat filling of the set quantity continuously. Any variations may depend on the following factors:

- Significant variations in the capacity of the filling tank
- Wear of the rubber impeller of the pump.

4.3 HEIGHT ADJUSTMENT OF THE PRONG .



When filling is completed should the air extraction tube, situated on the filler head, tend to fill withliquid, the height of the prong holding the bag should be adjust.

Such adjustment should be made without extracting the filler head, to prevent the liquid from spilling out of the bag.
Using the handwheel as indicate before raise the prong until the liquid inside the tube ebbs back into the bag. Block the prong in place at this new height and remove the filling head. The level of the liquid inside the bag must remain within the rigid ring section. The height thus determined will be valid for all the bags of the same capacity. When the size of the bag varies the height will need to be readjusted.

4.4 DIFFERENT BAG FORMAT. To modify the bag format utilised perform the following corrections:

- Check the height of the prong and if necessary adjust in relation to the size of the bag
- Set the no. of litres needed to fill the new bag format
- Adjust, if necessary, only the COR parameter
- Before starting up the machine for the first filling operation press the RESET button for 5 seconds and check that the counter “QUANT. DELIV.” is at 0. If a different value is shown keep the RESET button pressed until the O figure appears.

5. POSSIBLE CAUSES OF MALFUNCTIONING

WARNING

All repairs must be carried out directly by Enoitalia srl or by qualified and specialised staff

In the case of any repair operations use original spare parts only by contacting the retailer ormanufacturer directly.

PROBLEM	REMEDY
The filling machine does not stop upon reachingthe no. of litres set.	Check that the compressor is turned on and thatthe air tubes are open. Check that the air tube is connected to thepneumatic valve.
The filling machine stops after a few litres without reaching the set level.	Press the reset button and check that all the counters show the correct start value.
It is difficult to insert the filler head inside the bags.	Check that the head is centred and adjust using the screws for the purpose.
The pincer cannot get the cap out.	Check the exact position of the cap and if necessary adjust it using the handwheel for thepurpose. Check the load springs of the pincer. Check that the cap is compatible with the pincer used and if necessary contact the manufacturer.
The air depression tube fills with liquid.	Raise the fork holding the bags. If only a matter of a few drops this is not a problem since they will be expelled from the tubes at the next filling operation.
Liquid leaks onto the lower shelf.	These are drops of liquid which are expelled from the air depression outlet. These drops will not cause any damage to the system, but to collect them put a recipient under the outlet tube.
Liquid leaks out of the decanting pump.	Check and replace the mechanical pump seal.
The filling machine does not start and no liquidcomes out of the filler head.	Check that the machine is powered at the right voltage. Do not use extension leads of insufficient section which could cause voltage drops. Check any safety devices of the electricity system Check that the compressor is turned on and thatthe air tubes are open. Check that the air tube is connected to the pneumatic valve. Check that the switch is in the ON position. Check that the magnetic-thermic switch inside thecontrol panel is in the right position. Check that the pump is sucking up the liquid and ifnecessary close the by-pass.

6. WARRANTY

- Position the machine in a dry place, protecting it from bad weather and damp
- Do not use the machine to decant inflammable or explosive liquids or in an explosive atmosphere, since the motor is not explosion-proof
- The temperature of the liquids to be decanted must be between +5 °C and 60 °C; highertemperatures cause a general deterioration of the overall performance of the machine
- The noise levels observed are within the limits foreseen by the directive 2006/42 EEC (<85dB)
- Before starting up the machine make sure that it has not been subject to damage during transport(breakages or dents) which could prejudice its functioning
- Never plug in the machine, use the commands or perform any other operation on the electricalparts with wet hands
- Do not remove the protective casing when the machine is functioning or being washed.
- Read this manual carefully and thoroughly before using the machine and keep it to hand for anyfuture reference.
- Enoitalia S.r.l. is not responsible for any damage deriving from modifications made to the machine by third parties.
- Enoitalia S.r.l. reserves the right to make manufacturing modifications at any moment withoutbeing under any requirement to communicate such.

7. INTEGRATIONS AND OPTIONALS

7.1. INTEGRATION OF OLIVE OIL FILLING KIT

The machine is equipped with electromagnetic stainless steel liter-counter, and impeller with neoprene pump.
The filling head is equipped with a total closure system, with a perforated cylinder for the VACUUM and NITROGEN functions.
Operation and settings are the same as above for the base model.
Steam sanitization cannot be set.

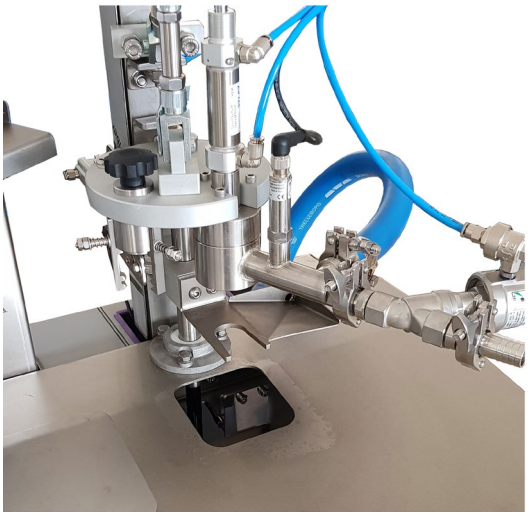
Non-drip head, standard with olive oil kit installation and hot liquid filling

7.2. HOT LIQUID FILLING INTEGRATION

The machine is equipped with stainless steel induction liter-counter and impeller with EPDM pump, the filling head is equipped with a T-shaped closure system.
Operation varies in the setting of the "Liter-counter cycle parameter" K FACTOR, which in this case has an order of magnitude of about 950 pulses / liter (instead of 100 for wine), and the machinery is also set up for steam sanitization.
With this configuration it is possible to fill with cold, hot, viscous products, with suspended solids, creams.
To verify the conductivity of the products (oils cannot be used), and the compatibility of the pump used (alternative pumps to the standard installed one are available, such as lobe pumps or progressing cavity pumps).

7.2.1. FILLING TEMPERATURE CONTROL

In addition to the integration of hot liquid filling, the machine can be equipped with a sensor for detecting the temperature at the outlet of the product from the filling head.
We can therefore set both the quantity and the minimum outlet temperature;
if the liquid coming from the pasteurizer does not have the desired temperature, it is diverted to a collection tank and filling resumes only when the set temperature has been reached.



7.3. OPTIONAL COLLECTION TANK

If the machine is equipped with a lateral collection tank, this has a female DIN 25 inlet, for connection to an upstream pasteurization system; it is a DIN 25 output to which the filler pump is connected.
Inside the tank there are two level probes that allow the control of the liquid inside the tank.

At the customer's request, the tank is equipped with:

A) Junction box with the two electrical contacts of the probes. The customer must provide for their connection with their own pasteurizer to stop or start the flow of the product inside the tank

B) Electric panel for opening or closing control of a valve at the inlet of the tank, the valve closes when the full level is reached and opens when the level is minimum.

C) Electric panel with control of a three-way valve at the inlet to the tank.
The valve closes the product inlet and opens a second way to return the product to an upstream accumulation. When the level is minimum, the product return closes and the tank filling opens.

D) If an Enoitalia pasteurizer has been purchased, the tray is equipped with a float with electric cable and connector, to manage the pasteurizer from the panel.
The operation of the filler does not change in the case of the presence of a lateral accumulation tank.

ENOITALIA s.r.l.

Via Prov. Pisana, 162 - Cerreto Guidi (Fi)

EC DECLARATION OF CONFORMITY

(All.IIA DIR.2006/42/CE)

ENOITALIA s.r.l.
Via Prov. Pisana, 162 Cerreto Guidi (Fi)
P.iva 03987590480

declares, in sole responsibility, that the following product:

Filler Machine BB20
Serial Number:

YEAR OF CONSTRUCTION: 2021

Referred to in this declaration conforms with the following directives and standards

- 2006/42/CE and subsequent amendments and national provisions implementing
- 2014/35/CE and subsequent amendments and national provisions implementing
- 2014/30/CE and subsequent amendments and national provisions implementing.

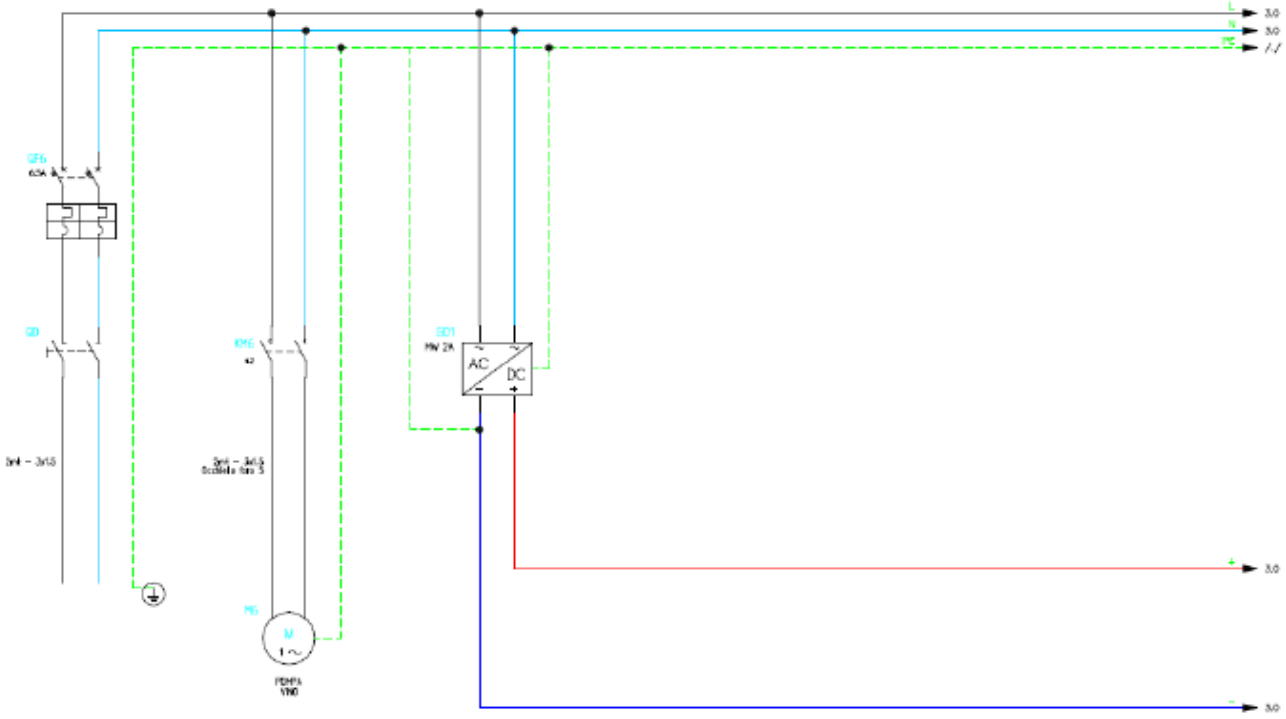
The machine also complies Harmonised Standards
UNI EN: 349; 954/1; 1050; 547-1-2-3; 894-1-2-3; 953; 981; 1005-1-2-3-4-5; 1037.
UNI EN ISO: 3744; 7000; 12100-1-2; 11202; 11205; 11688-1-2; 14121-1; 13857;
UNI EN ISO 1186.
Standards and technical specifications CEI EN 60204/1.
Standards and technical national specifications UNI ISO 1819; UNI ISO 7149;
UNI 7544; 45020; 60447; 60447.

Declare the machine is made in stainless steel AISI 304 18/10, and all the component are certified foodstuff use (including pipe, valve, flow meter, fitting) in conformity to D.M. of 21/03/1973 and D.M. nr.220 of 26/04/1993 and following modifications.

Cerreto Guidi 13/09/2021

The Production Manager

Stefano Menichetti



ALIMENTAZIONE GENERALE
220VAC – 50Hz