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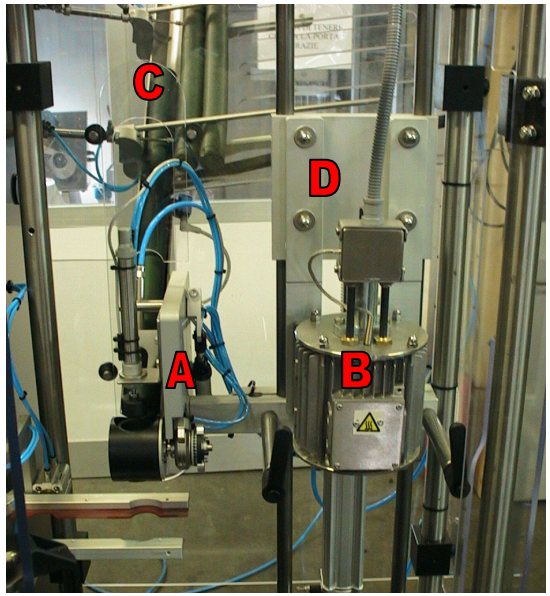
“photo machine with “machine to encapsulate”

1 General Description of the machine to encapsulate

The machine to encapsulate has got the function to provide the distribution of the capsules on the bottles and to enrol them around the bottle.
In the case of thermo-back capsules, we will speak about of machine to encapsulate with thermal head, in the case of capsules in poly-rolled and of aluminium, we will speak about mechanical machine to encapsulate with little rolls. It is possible to have as additional accessory, instead of the short pipe of chargement standard capsules, a charger of capsules with "plateau" that we will also treat in this integrative manual even if it is not present in the model that you have chosen.
The typology of capsules to use are only those agreed with the building firm that has approved the use. Before using different capsules from those agreed, you are preached to contact the building firm that will verify and eventually will approve the employment by indicating the modalities after a written communication.



A = distributor of capsules

B = head machine to encapsulate; thermal or mechanical with little rolls

C = pipe for the chargement capsules or plateau

D = truck of regulation group machine to encapsulate

2 Technical data machine to encapsulate

The general technical data are those reported in the manual of instruction for the use and for the maintenance of the basis machine with the exception of the data reported below.

Dimensions of occupied space with charger with short pipe	circa: L=2.440 mm; P=900 mm; H= 2.100 mm
Weight equipment machine to encapsulate	51 kg approximately
Electrical alimentation	From electrical panel machine
Pneumatic alimentation	6 bar with dried air
Air Consumption	25 l/min approximately

3 Controls for the use

Operations of encapsulating

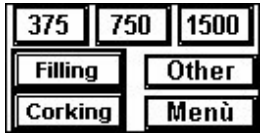


fig.1

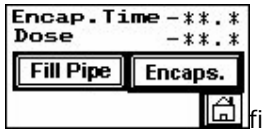


fig.2

From the first page, do press the bottom "Other" in order to access to the controls of encapsulating (fig. 2)

Do collocate the bottles in the platorels left side on the linear system of transport.

Rotation: set time from the builder for the operations of closing caps.
Time cap: It is the time that the thermal head remains down on the bottle to allow a major thermal backing. It can be necessary with specific types of capsules.

Be quite: with mechanical head with little rolls for capsules in aluminium or poly-rolled the function ROTATION is not active .
The TIME CAP, however, must stay at zero

Regulation highness machine to encapsulate and collocation capsules

Whenever we change the format of the bottle, we need to regulate the highness of the machine to encapsulate over the bottle to use.
Do collocate the bottle on the platorel, in the position that is under the distributor of capsules and do elevate or do put in a lower position the truck of regulation machine to encapsulate in a manual way (fig. 4), or through hand-wheel of regulation if the machine is provided with this option (fig. 9). In any case, it is necessary before to loosen the two “jacquards” (fig. 3) and bring the distributor of capsules up the bottle till to skim over the plastic thickness supplied (fig. 6); afterwards, do block the truck with the two “jacquards” (fig.7). In the case of operation with regulation of the truck machine to encapsulate without the help of a hand-wheel, it will be necessary to move the truck by sustaining it like it is showed in fig. 5.
Do collocate the capsules into the pipe (fig. 8) and do provide to the functioning by elevating the system of white nozzles; beat the capsules on the rotating support of black colour (fig.9). Do verify the position of the capsules like it is showed in fig. 10.

In the case you have installed also the hand-wheel of regulation highness machine to encapsulate (fig. 11), it will be necessary to loosen the “jacquards” (fig. 3) and regulate the highness. Once in position, do hold again the jacquards.

If installed, in the figure 12, the plateau capsules is showed.


fig.5
to up and down

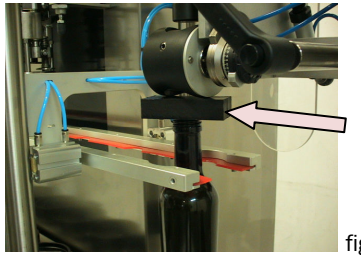


fig.6
to use spessor to regulate highness

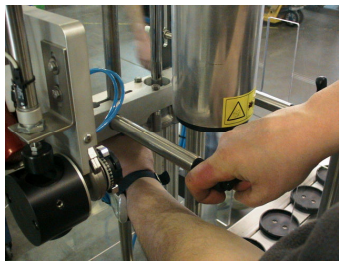


fig.7
to hold the jacquards


fig.8
to collocate the capsules on the short pipe


fig.9
to adjust the capsules in beat at the rotating distributor

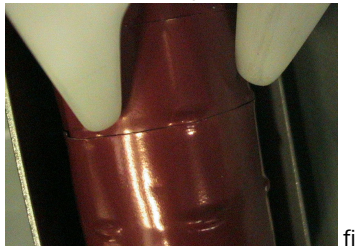


fig.10
to regulate so that the end of the capsule is always collocated under the two white nozzles

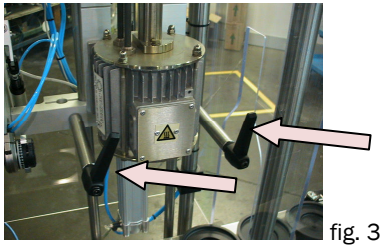


fig. 3

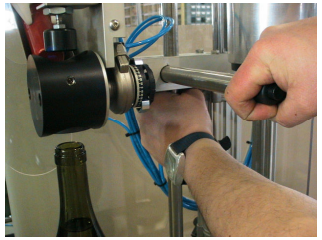


fig.4
sustain before loosing

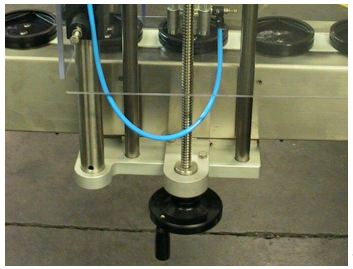


fig.11

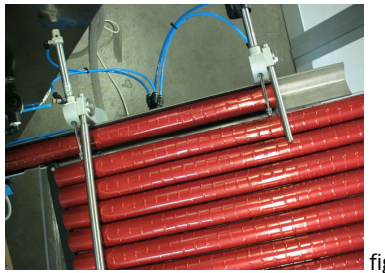


fig.12

Setting out temperature of Electric Oven

The setting out of the temperature is executed in the building firm on the consigned samples, however it is possible to vary the value if other typologies of capsules require it. As a matter of fact, excessively high temperatures will tend to fuse the capsules, too low temperatures will not allow a suitable thermal backing.

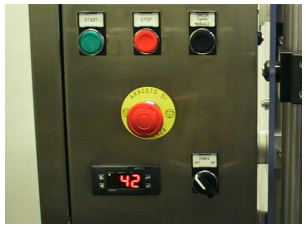


fig 13

fig 14

In addition to the regulation of the temperature, it is possible that some capsules require a major or a minor time of thermal backing; major if there are thick capsules, minor if there are thin capsules. This regulation, however, is possible through the setting out with the touch screen “time cap” (fig. 15)

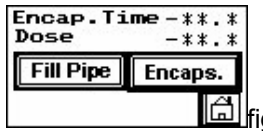
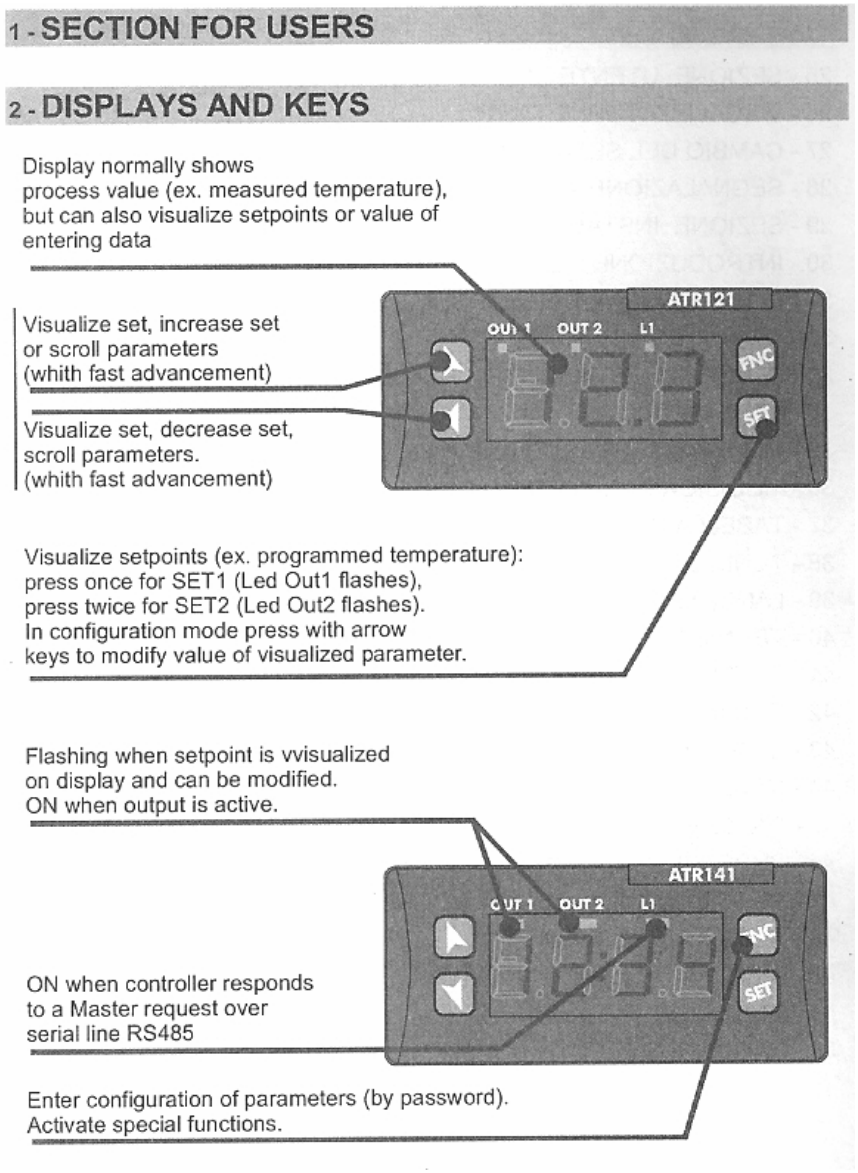


fig 15



3 - CHANGE OF SETPOINT VALUE

To modify the setpoint value, press SET key or one of the arrow-keys: led OUT1 flashes and it is now possible to enter/modify setpoint value by pressing the arrow-keys.

	Press	Display	Do
1	or or SET	Display shows **control setpoint**; Led OUT1 flashes.	Press or To modify setpoint (fast advancement available). Approx. 4 seconds after last modify, display shows again process value (value read by sensor input).
2	SET	Display shows **alarm setpoint** and led OUT2 flashes.	Press or to increase or decrease setpoint value. When the keys are released, the new value is automatically stored and in a few seconds display shows again process value.

4 - LIST OF ERROR MESSAGES

If the plant does not work properly, the controller stops the running cycle and shows the anomaly.
For example the controller will notice the failure of a thermocouple displaying E-5 (flashing).
For further error signs check the list below.

Error	Cause	Do
E-01	Programming error EPROM.	Contact technical service
E-02	Cold junction failure or room temperature out of range	Contact technical service
E-04	Wrong configuration data. Possible lost of calibration values	Check configuration parameters
E-05	Open thermocouple or room temperature out of range	Check sensors connection and their integrity
E-08	Missing calibration data	Contact technical service

Control of the functionalities of the machine

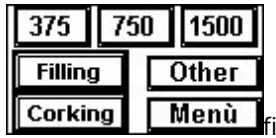


fig.16

fig.17

fig.18

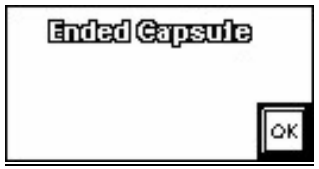
fig.19

This operation could be required in the case of some problems, for the control of the functionality of the several operations that the machine can execute. Do access to the test with the bottom "menu" fig. 16, do press the bottom "Test" like in the figure 17, then the screen of figure 18 appears where we can access to the control of the singular parts of the machine, do change screen with the arrow bottom to look for the functions to control (machine to encapsulate) fig. 19.

Do select the interested bottom of test. Do effectuate before an operation of reset through the bottom "Start" (round) on the electrical cupboard.

SIGNALS OF WARNING- the touch-screen appears in a red/orange colour

When this warnings manifest, after having removed the problem, it is necessary to press the bottom "OK" and do restart the machine with the bottom "Start" that is in the part under the touch-screen. Do press the bottom "Start" again for about 3 consecutive seconds in order to allow the repetition of the desired operations.



The message appears when about 10 capsules remain on the charger, afterwards, if you do not put other capsules on the charger, the machine blocks itself.

4 Failures and solutions

The machine is provided with a system of control of the functions of the machine, these one can be verified in a singular way so, in the case of bad functioning or supposed damage of one of these functions, you are preached to execute the relative test. It is advisable to effectuate the tests of the functions with the machine without any bottle. The functions of control are reported below, by pressing before the green bottom START on the electrical cupboard and then the relative bottoms on the touch screen, by controlling:

- Av. Caps: the movement of giving back capsule
- Blow: the breath from the nozzles of pushing capsule
- Push: the piston with the plug pushing capsule on the bottle
- Rotate: the rotating piston of orientation capsule
- Roller: the movement lowering/elevating of the rolling or thermal head
- Plateau: the movement of giving back line capsules

In the case that the functions do not correspond to the controls, it is necessary to require technical assistance.

5 List updated chapter

- Chapter 3 Controls for the use 10/11/10