

CONDITIONS OF SALE AND WARRANTY

1. Read carefully this operator's handbook before operating our Mbl 100 Monoblock.
2. M.E.P. guarantees his Mbl 100 Monoblock in case of breakages caused by faulty components or incorrect assembly.
3. The Mbl 100 Monoblock has a 12-month guarantee which starts from the first operating of the machine. This guarantee is valid only for the first owner of the corking machine.
4. Warranty only consists in replacing the damaged parts and it does include neither refunds for losses caused by the stopping of the machine nor any cost of labour or any transport cost to send the corking machine to a repair shop.
5. Any repair or modification made to the machine by unauthorized personnel will make the warranty decline.
6. We cannot be held responsible for damages due to incorrect use of the corking machine, lack in carrying out the maintenance operations or problems arisen during transport.
7. M.E.P. reserves the right to introduce changes without previous notice to the Mbl 100 Monoblock; however, the supply of spare parts of the previous models will be guaranteed.

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1. DESCRIPTION OF THE Mbl 100 MONOBLOCK

Our Mbl 100 Monoblock is an automatic machine made of a filling machine and a corking machine.

The standard machine is provided with a gravity filling system; so, it is good for the bottling of products not too thick, such as wine. In the corking machine, it can be used corks or synthetic stoppers close to the neck of the bottle.

As an optional equipment, it is possible to get the Monoblock with a vacuum-operated filling system; this system allows you both to increase the output of the Monoblock and bottle thicker products, such as oil, which require corks close to the neck of the bottle.

As far as the corking is concerned, it is possible to provide the machine, as an optional equipment, with an azote device (to put azote into the bottles) or an air-pump (to make the vacuum between the wine and the cork before the corking).

In the standard version of the Monoblock, bottles must be manually pushed into the central star; as an option, it is possible to equip the machine with a bottle-conveyor band which pushes the bottles into the star automatically. In this case, bottles must be placed on this band, paying attention that there is always a minimum number of them.

The Monoblock is placed on wheels, but if it is necessary it is possible to replace them with plastic feet to adjust the height of the machine.

Our Mbl 100 Monoblock is almost entirely made of stainless steel. Moreover all those parts which could come into contact with the product or the corks are made of materials that do not react with the air (such as stainless steel, plexiglass, chromium-plated steel), in order to prevent all chances of polluting corks with rust splinters or whatever other substances bad for health. Even the internal mechanisms, such as connecting rods and levers, are galvanized. All the parts which come into contact with the bottle are made either of rubber or pvc to avoid the breaking off of splinters from the glass.

The mechanisms that must bear heavier loads are supported by ball-recirculating elements in order to guarantee both a higher precision of functioning and a higher resistance to wear.

Safety symbols:



General danger



Caution: refer to the operator's handbook



Caution: 230 Volt tension.



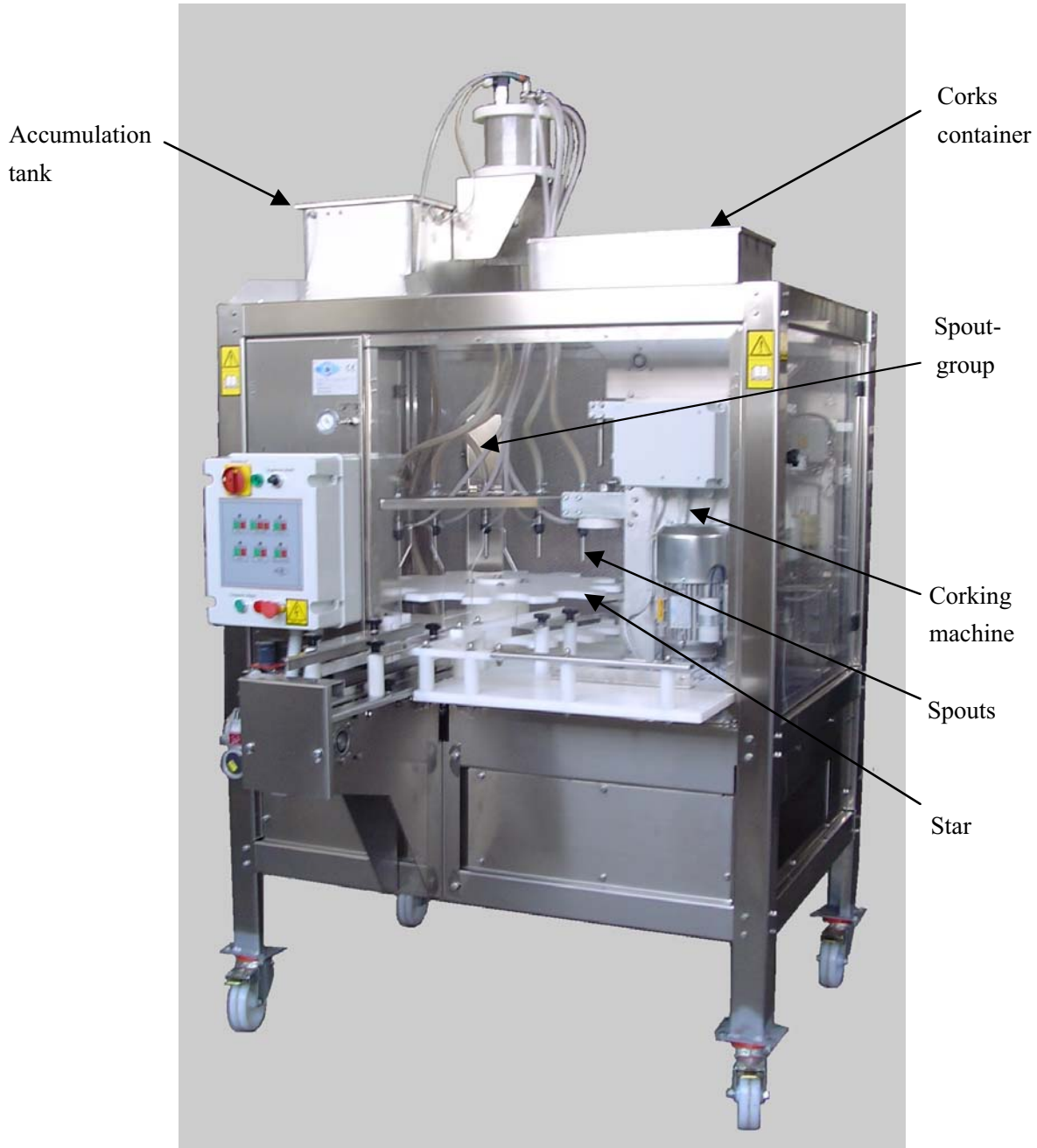
Caution: rotating gears. Severing of fingers.

2. OPERATING DIRECTIONS

The main part of our Mbl 100 Monoblock is a central star inside which the bottles are placed and turn. This star has an intermittent rotatory motion which allows for the bottles to pass from the entrance point to the filling machine, then to the corking machine and the gathering platform at the end.

The filling machine is made of an accumulation tank where is sent the product that must be bottled and a stainless steel element where are located the five spouts for the descent of the

The corking machine operates only when a bottle reaches the bottle platform; on the top of that, there is a corks container which must be regularly filled. This corks container is fitted up with a mixing device that lines the corks up and pushes them through the descent duct in the correct position for the corking to be carried out successfully (see picture 1).



Picture 1.

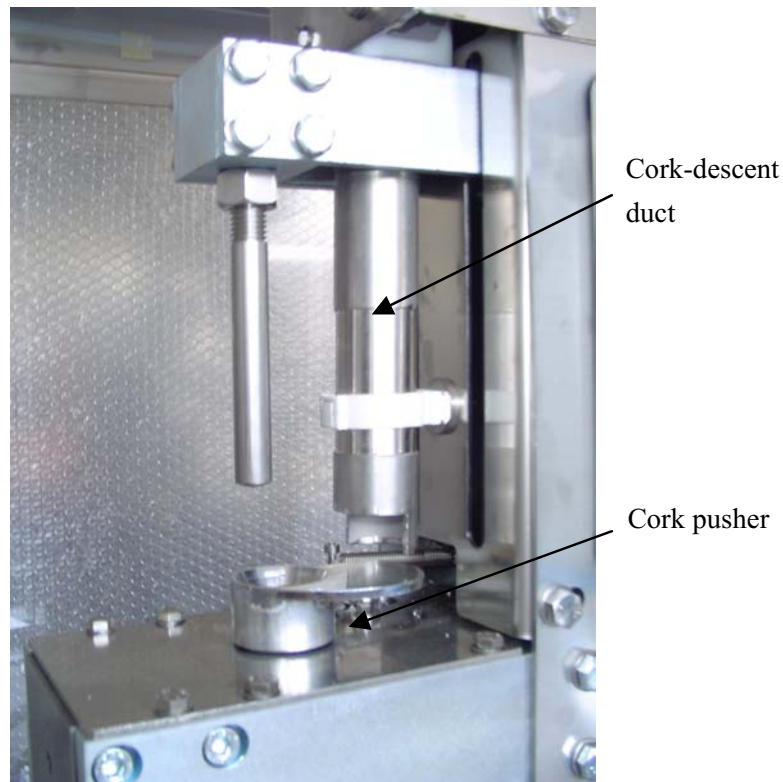
3. TECHNICAL DETAILS

The Mbl 100 Monoblock is set for corks with a diameter up to 26 mm and a height up to 50 mm, but on request the necessary elements for corks with a diameter up to 28 mm can be supplied (that is, the cork descent duct and the cork pusher, see picture 2).

It can be used bottles up to 375 mm high and with a 74 mm diameter; on request, it is possible to demand the set-up for bottles up to a 115 mm diameter. In this case, it is necessary to change the star and the spouts-group and this is a time-taking operation; so, it is advisable to buy the machine with the set-up for the dimensions of the bottles used mostly and demand a changing when only strictly necessary.

The output per hour of our Mbl 100 Monoblock is about 830 bottles (it is meant classic Bordeaux bottles) when the machine operates on gravity filling.

When the filling is vacuum-operated the output increases up to about 1200 bottles per hour.



Picture 2.

Mbl 100 Monoblock:

Height from the ground: 2080 mm.

Height from the ground with the vacuum-operated filling: 2400 mm.

Width: 1500 mm.

Length: 1210 mm.

Length with the bottle-conveyor band: 1560 mm.

Weight: 400 kg.

Weight of the Monoblock with the optional equipment: 440 kg.

Electric starting

feeding: 230 Volt, 50 Hz

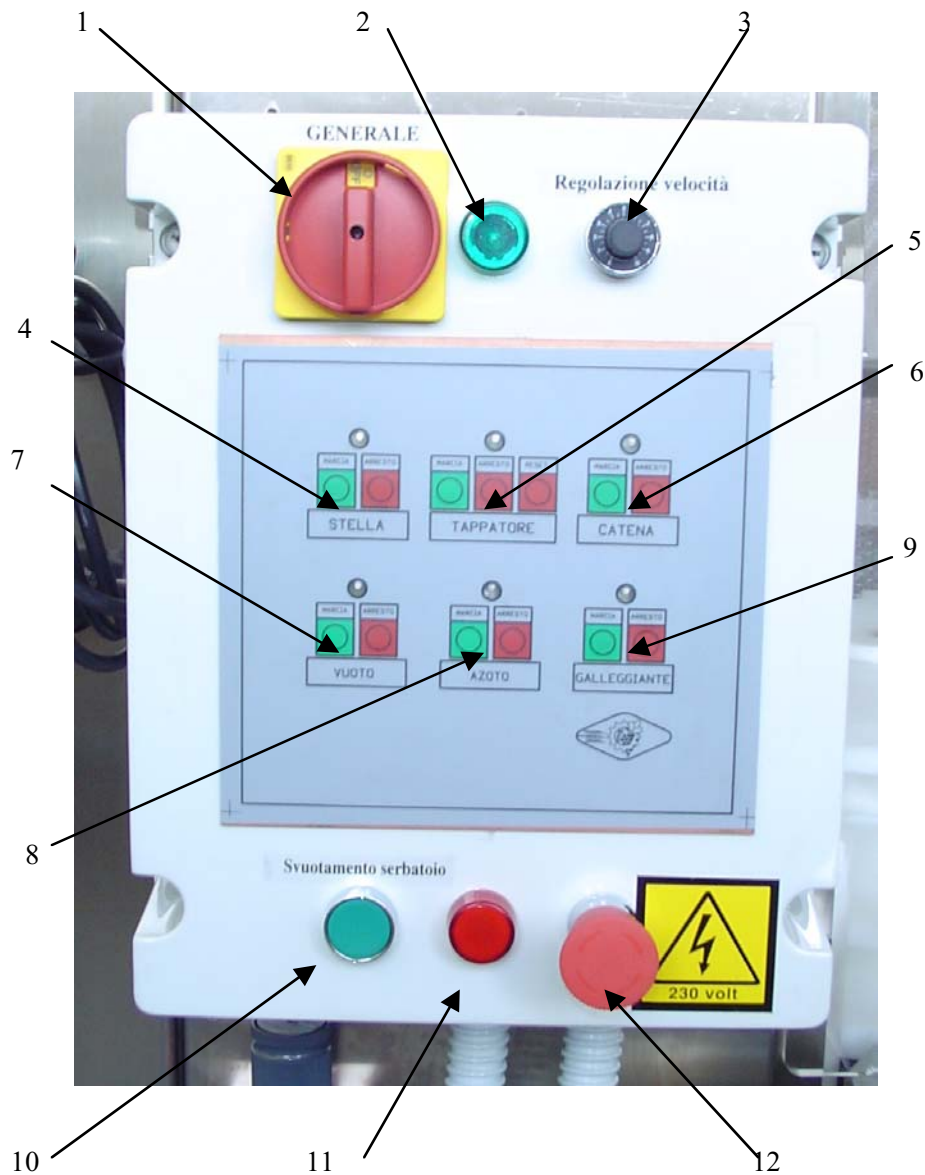
power: 0.93 KW (+0.18 KW with the bottle-conveyor band) (+0.18 KW for the vacuum-operated filling) (+0.18 KW with air-pump in the corking machine)

Pneumatic starting

air-consumption (6 bar): 7,8 NI/min

4. HOW TO SET THE MONOBLOCK GOING

Switch-board

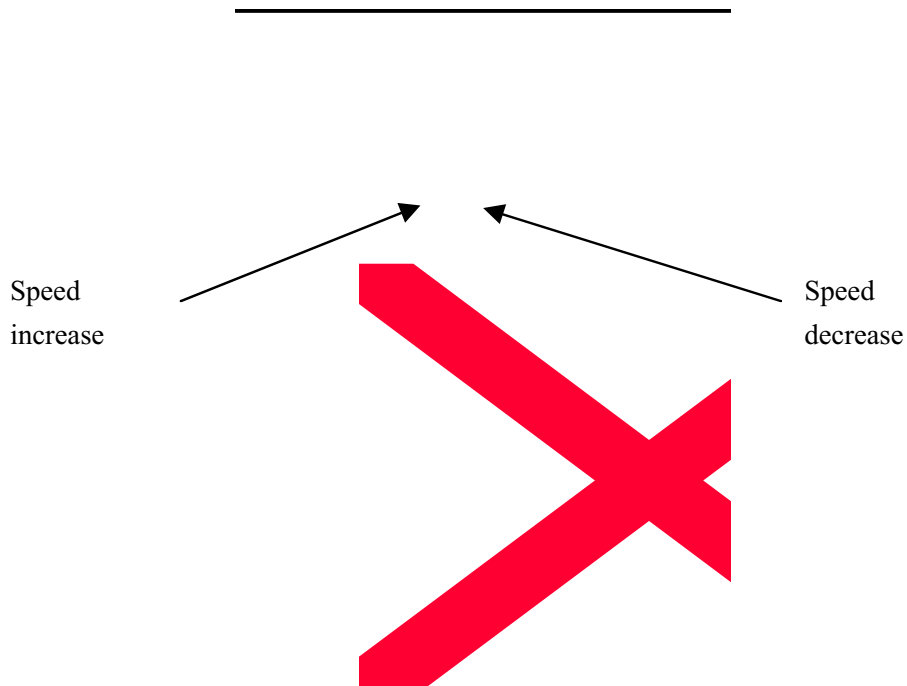


Picture 3.

1. General switch
2. Green warning light: when it is on, the machine is operating.
3. Star-speed switch: by turning this switch in a sense or the opposite, the star turns more quickly or more slowly: as a consequence, the output increases or decreases. When

increasing the speed, one must check that the bottles stay in the filling area long enough for them to be filled up to the level wanted.

Instead of this switch, the Monoblock can be equipped with a digital board with a display; in this case, it is possible to use only the push-buttons on which there is a downward arrow or an upward arrow (do not use the other push-buttons, because they serve for programming the board). Through these push-buttons it is possible to change the frequency feeding of the star, whose value is indicated on the display and to which a proportional speed corresponds. It is possible to adjust this frequency between 50-30.



Picture 4.

4. Push-buttons to control the star: push the green push-button to start the star and the red push-button to stop the star.
5. Push-buttons of the corking area: when the green push-button is pushed the corking machine is in operating conditions and, provided that the corks container is full and a bottle is on the bottle-platform, the machine corks it.

When the red push-button is pushed the corking machine stops and, even if there is a bottle on the bottle-platform, this will not be corked.

When the RESET red push-button is pushed the corking machine makes a working cycle and then stops; this push-button must be used when for whatever reason, such as a sudden black-out, the corking machine stops in the middle of its working cycle.

6. Push-buttons of the bottle-conveyor band (they are always present, but they are active only if the respective optional equipment was required): to start the bottle-conveyor band push the green push-button; to stop it push the red push-button.
7. Push-buttons of the vacuum system (they are always present, but they are active only if the respective optional equipment was required): to operate the vacuum system of the corking machine and remove the air from the bottles before corking push the green push-button; to disconnect this system push the red push-button.
8. Push-buttons for the azote device (they are always present, but they are active only if the respective optional equipment was required): to start the azote injection system before corking push the green push-button; to disconnect this system push the red push-button. It must be noted that it is not possible to make work simultaneously the vacuum system and the azote system.
9. Push-buttons of the float: to start the float which keeps steady the level inside the accumulation tank push the green push-button; to disconnect it push the red push-button. When the machine is working, it is necessary to start this float so as to enable the functioning of the electrovalve connected to it; otherwise, this electrovalve would remain closed and would not let the product into the accumulation tank of the filling system.
10. Green push-button: it serves to empty the tank of the filling system; when keeping this push-button pressed, the electrovalve which adjusts the product inflow to the tank opens and the tank itself is emptied still through this ball-valve.
11. Red warning light: when it is on it indicates either problems in the air-compressed feeding or a side door open.
12. Quick-stop push-button: once it has been pressed, turn it clockwise to allow for the machine to start again.

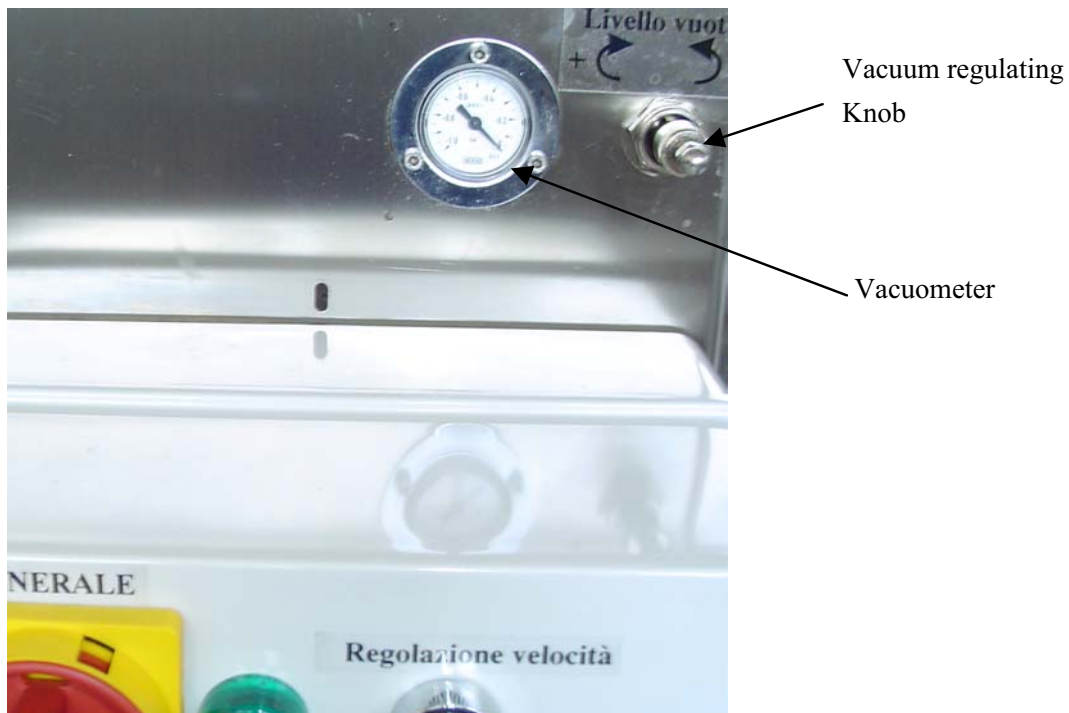
Vacuum - azote (optional)

To remove the air and obtain a certain depression between the cork and the product it is enough to push the green push-button for the vacuum.

The depression is obtained by making the vacuum inside a tank through an air-pump, and putting in touch this tank with the inside of the bottle during the last part of the corking operation.

The vacuum level inside this tank is displayed on the vacuumeter located above the switch-board and it is adjustable through the respective knob (see picture 4, vacuum regulator). This vacuum level is proportional to the depression inside the bottle when it is corked. For corks it is advisable to set the value on the vacuumeter between -0.7 / -0.9; whereas, for synthetic corks it is advisable to set it between -0.6 / -0.8.

Once the bottle is corked the depression inside the bottle can reach a value higher than -0,4 bar compared to the atmospheric pressure.

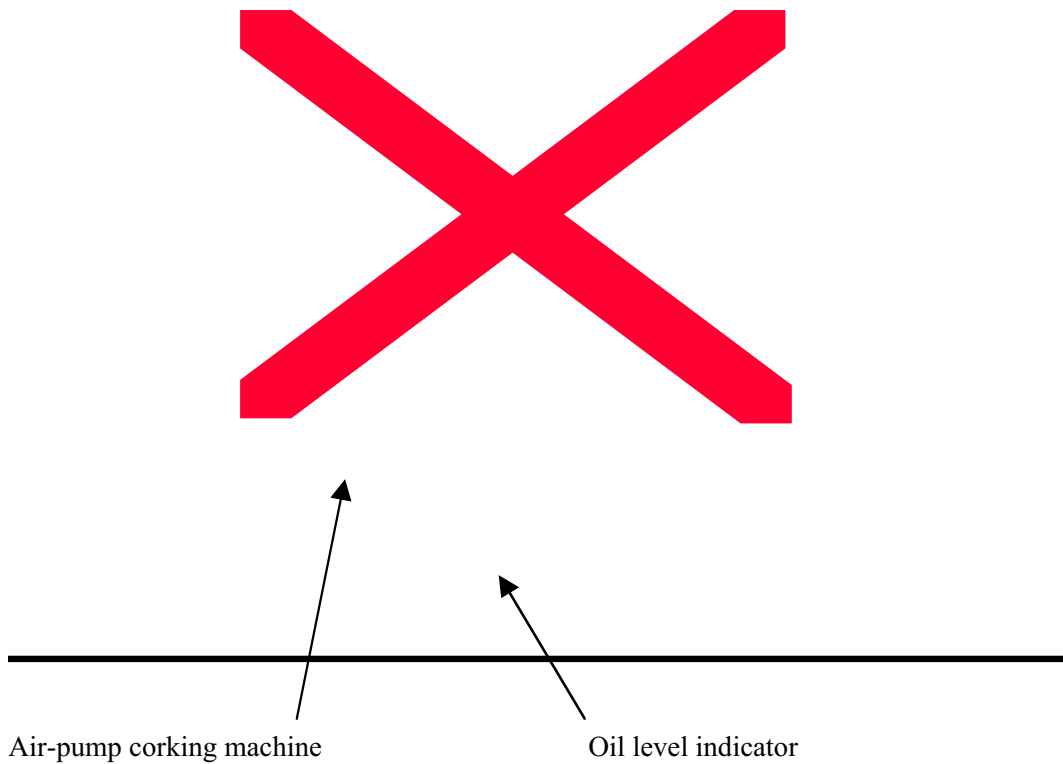


Picture 5.

CAUTION

It is important to **check the oil level of the air-pump before starting work**. The oil level of the pump can be checked through a round indicator that can be reached by disassembling the back safety guard; in order to obtain proper functioning, the oil level inside this indicator must be at about half-way.

The oil level has to be checked at least every 20 working hours.



Picture 6.

Otherwise if you want to put in azote before the corking, connect the azote feeding hose to the special connection located in the right lower part of the machine (see picture 5). Then turn the green azote switch. In this case, the pressure can be adjusted through the regulator located on the azote bottle. It is advisable not to set values too high, such as 0,3 bar above the atmospheric pressure.



Connection for azote-feeding pipe

Picture 7.

It must be noted that it is not possible to make work simultaneously the two above mentioned devices. Then, when pressing the green vacuum push-button, make sure that the azote device has been turned off through the respective red push-button, and vice versa.

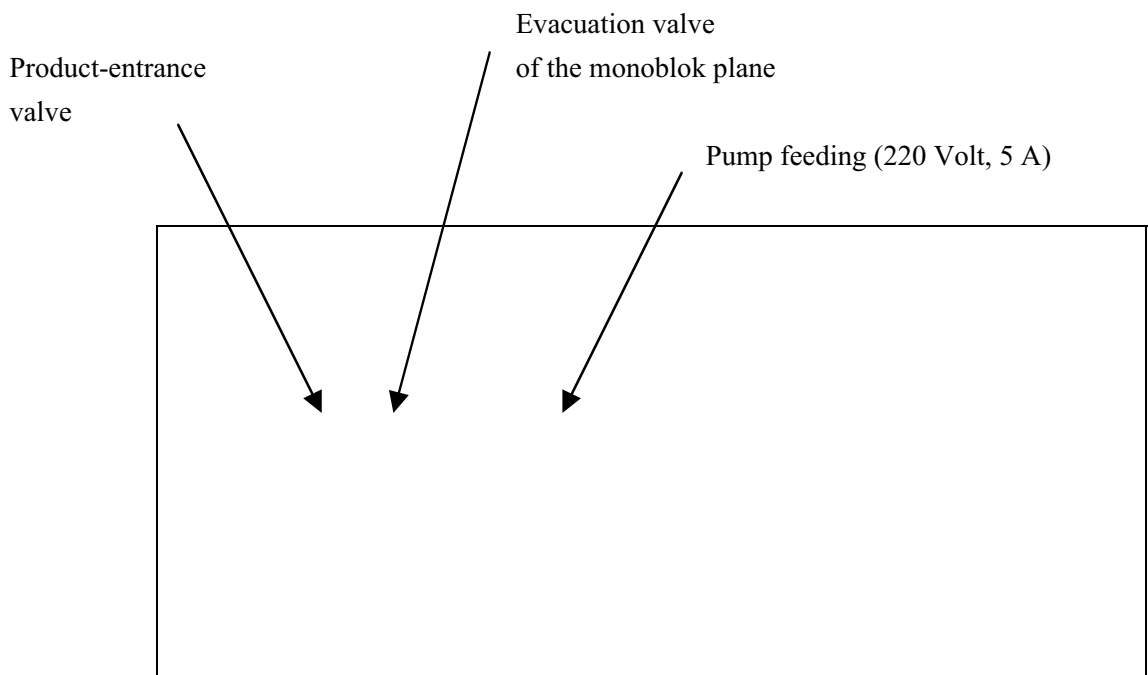
Product feeding

There are two possibilities to send the product to the filling system.

In case the product has already been filtered it can be used a pump and it can be connected to the air feeding tap of the Monoblock (see picture 8). In this case, the level inside the tank is assured by an electric float, which controls the feeding tap and starts the pump only for the time strictly necessary. In this way the product is not made recirculating in vain through a pump which is always working and the characteristics of the product are preserved better

There is an electrovalve driven by the same float which closes when the feeding of the pump is interrupted and so avoids any downflow.

It is also possible to let the wine come from a container located higher than the Monoblock; in this way, the pump is not necessary and the characteristics of the product are safeguarded better.



Picture 8.

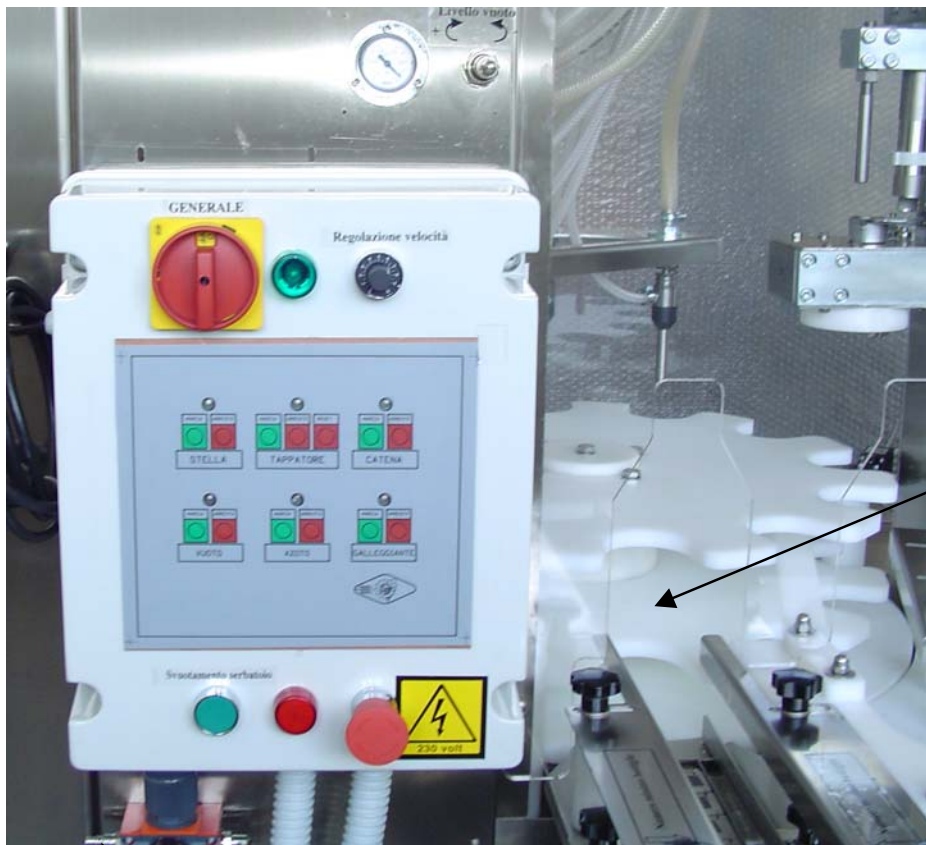
Bottle feeding

In case the Monoblock is provided with a bottle-conveyor band, lay a certain number of bottles on it until it is completely covered. Then make the star turn of a position by pressing the respective green push-button so as to have the entrance point of the bottles with no spout. Now push the green push-button of the bottle-conveyor band to start it and put the bottles in touch with the star. It must be noted that when starting the bottle-

conveyor band the star must not be moving, and during work pay attention that the quantity of bottles on the bottle-conveyor band is not lower than what is indicated by the two arrows "minimum number of bottles".

If the machine is not equipped with any bottle-conveyor band, the bottles must be introduced manually. Don't put your hands into the machine: lay a certain number of bottles in the entrance way and push them one against the other until they are correctly inserted into the star. It must be noted that in its intermittent rotatory motion the star stops for a few seconds showing a free housing and so you must push right at that time.

Anyway the moving system of the star is provided with a clutch so as to prevent any accidents to the operator in case he moves his hands too near the moving gears and damages to the machine in case a bottle is inserted incorrectly.



Entrance
housing
without
spout

Compressed air connection

Picture 9.

Instructions for use

Positioning. The Monoblock must be placed on an even ground in a dry and lit up room far from other machines. In case the machine is equipped with wheels, they must be braked. If it is provided with plastic feet, adjust them so as to make the Monoblock even.

Clean carefully the product accumulation tank and the external part of the spouts.

Check that no foreign matters which could compromise the good functioning of the machine are either inside the cork container or inside the jaws.

Open the two side doors, take off the antiscratch blue nylon film (if it is present) and close them again.

Screw a pipe-holder with a 1/2 gas threading to the ball-valve for the entrance of the product located in the left side of the Monoblock (see picture 8) and connect the pipe from which the product that must be bottled comes and if necessary secure it through a clamp. Open this ball-valve by using the respective lever and make sure that there are no leaks.

Connect the compressed air feeding cable to the connection of the manometer located in the front part of the Monoblock (see picture 9) and adjust the feeding pressure at about 6 bar. In order to adjust the feeding pressure, lift the knob of the manometer, turn it clockwise or anticlockwise depending on whether you want to increase or decrease the pressure and then lower it once again. After connecting the compressed air the spout-group must go up.

Connect the feeding cable to a 230 volt current-tap, turn clockwise the quick-stop button of the switch-board (it could have been turned unintentionally) and turn the starting switch to position 1 (see picture 3). Now a green light should be lit and the Monoblock is in working conditions.

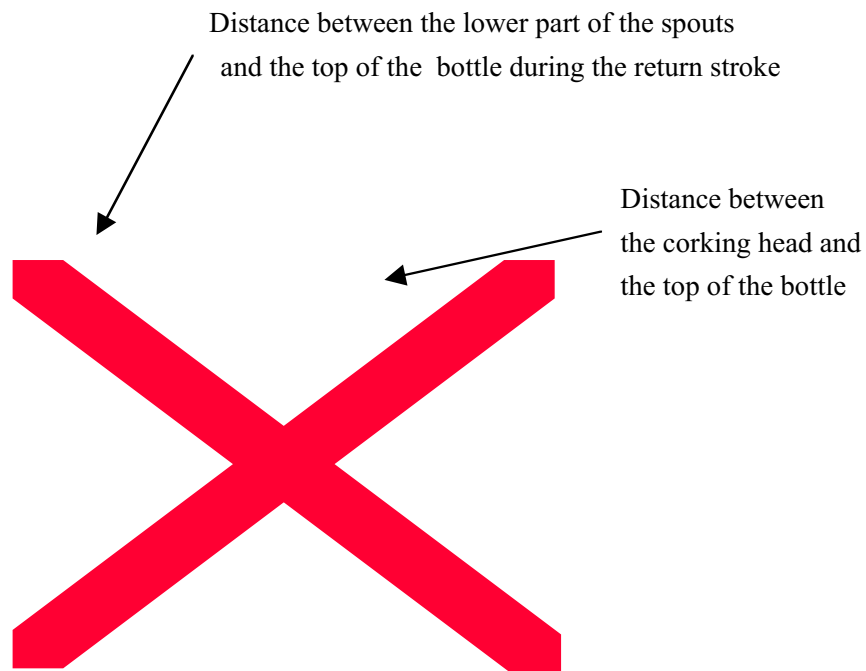
CAUTION

The corking machine can be used by only an operator at a time and no one else should be near when the feeding cable is connected and the corking machine is operating.

Before starting work fill the corks container with corks and position the bottles as indicated above. Then, start the electric float by pressing the respective push-button and wait for a

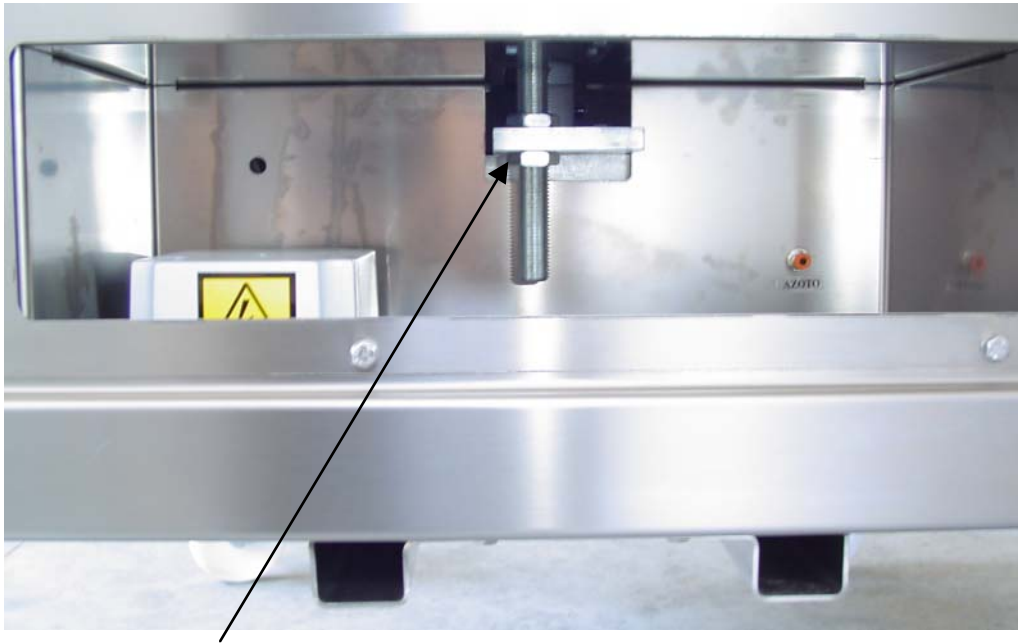
Now start the star and the corking machine by pressing the respective push-buttons on the switch-board and proceed with the bottling.

For proper functioning the spout-group in its return-stroke must be at a distance of 2 cm from the top of the bottles; whereas during filling every spout must be inside the bottle with its mobile part raised and the two holes for the descent of the product must be open (see picture 10). In the corking area the top of the bottles must be at a distance of 1 cm from the corking head before the corking. If it is not so, the bottles used are different from the classic Bordeaux bottles for which the Monoblock is set.



Picture 10.

To obtain proper bottling it is necessary to position the corking machine at the right height by using the special adjusting screw (see picture 11) and tighten the screws that hold the spout-group into the respective holes (there are holes located at different heights to adjust



Nuts for bottle height regulation in the corking machine

Picture 11.

Before starting work it is advisable to bottle tepid water to get rid of whatever residual products that can be inside the feeding pipes of the spouts.

5. FAULTS AND REMEDIES CHECK LIST

When the machine is operating the green light (see picture 3) must be on. If it is not so, you must check that the two side doors are closed and the manometer for the regulation of the compressed air indicates the right pressure value.

It must be noted that once the quick stop push-button is pressed, it stays pressed and in order to release it, it must be turned clockwise. For this reason, if the machine doesn't start, it may have been pressed the push-button by mistake; in this case, turn it and try again.

In case the two side doors are opened the green warning light goes off, the red warning light lights up, the Monoblock stops immediately and the corking machine remains half-way of its working cycle. To start the Monoblock again, press the RESET push-button of the corking machine on the switch-board: the corking machine makes a complete cycle to reach the starting-work position.

IMPORTANT

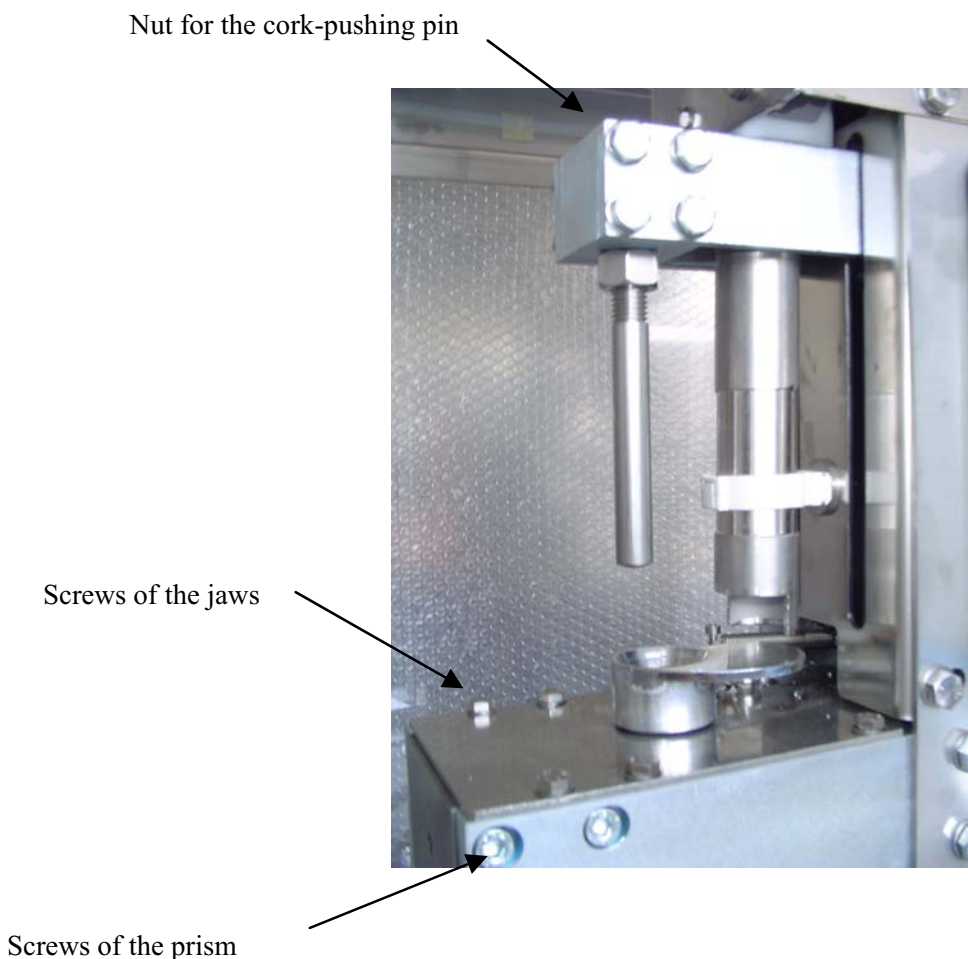
Before intervening on the machine always bring the general switch back to the "0" position and disconnect the feeding cable.

In case the product doesn't go down into the bottles properly, especially by gravity filling, there could be a curve inside one of the air-evacuation ducts. In this case, settle the clamp which holds together the product descent duct and the air duct so that when the spouts are inserted into the bottles do not have a curve downwards.

If the corks don't go down the cork descent duct correctly open the lid of the corks container and mix the corks.

In case the corks are not picked up precisely by the cork pusher, open the door near the corking machine, loosen the screws which hold the upper plate of the jaws onto which the cork pusher itself is fastened (see picture 12 screws of the jaws). It is possible to

adjust the stroke of the cork pusher by moving a bit this plate towards the machine or in the opposite direction. Then tighten the screws once again and start the machine. If the result obtained is not satisfying, repeat this operation.



Picture 12.

If it is needed the cork to be inserted deeper or higher in the neck of the bottle, the fastening nut must be loosened and the cork-pushing pin turned: the last is threaded then it can be moved up and down. Before starting the machine again, the fastening nut must be tightened (see picture 12).

In case one does not succeed in carrying out the above mentioned adjustment (especially it could not be successful with synthetic stoppers) it is advisable to adjust the tightening of the jaws.

Our Monoblock is set to compress the corks up to a diameter of 16 mm. To use it with synthetic stoppers or particularly strong corks, it is advisable to adjust the diameter of tightening to 15 mm.

To carry out this operation, the screws which fasten the prism of the jaws (see picture 12) must be loosened and the prism itself must be moved 1 mm. towards the corking machine.

The above mentioned screws are tightened inside buttonholes so that the adjustment of the prism is easier. At the end of this operation the screws of the prism must be tightened once again.

In case the machine vibrates a little, one should lubricate the inside of the jaws and let the machine do a couple of blank strokes. Before starting work it is better to clean the jaws to prevent the oil from dirtying the corks.

If the vibrations continue it is advisable to loosen the bolts of the back guard and lubricate all the pins and bearings inside. Do the same operation on the rest of the Monoblock by opening the lower side safety guards. In case the problem persists turn to the manufacturer.

CAUTION

In the event of strong vibrations or whatever types of anomaly of the machine immediately push the quick-stop push-button. One could try to locate the problem by disassembling the back safety guard of the corking machine and the lower side safety guards, but it is better not to go on trying too long and contact the local dealer or the manufacturer.

6. MAINTENANCE

A long machine working life is dependent upon constant and methodical compliance with the following instructions.

To ensure the proper functioning of the corking system, the following operations must be done periodically:

- clean the jaws from any cork dust;
- lubricate the inside of the jaws and remove the excess oil before starting work.

As far as the filling system is concerned, the upper accumulation tank must be emptied at the end of work and the spouts must be completely emptied as well; to do that, let some empty bottles turn.

In case the product descent pipes or the air evacuation pipes turn to a dark colour and are no longer transparent they must be changed.

Moreover, remove any product drops that might be on the plane of the machine or on the star. It is advisable to rinse with water paying attention not to let drops fall into the mechanisms underneath. To remove the drops on the plane of the machine it is possible to use the ball-valve located near the product entrance one.

At the end of each season or before a long stop, we recommend to:

- bottle water for a couple of minutes;
- clean carefully the machine in all its parts;
- store the machine in a dry place and cover it up with a cloth or a nylon film in order to prevent the dust from crusting over the corking machine.