

CONDITIONS OF SALE AND WARRANTY

1. Read carefully this operator's handbook before operating our Avt400 capping machine.
2. M.E.P. guarantees his Avt400 capping machine in case of breakages caused by faulty components or incorrect assembly.
3. Our Avt400 capping machine has a 12-month guarantee which starts from the first operating of the machine (as long as it is within the next 20 days from its leaving our factory). 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 Avt400 capping machine; however, the supply of spare parts of the previous models will be guaranteed.

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1. DESCRIPTION OF THE Avt400 CAPPING MACHINE

Our Avt400 capping machine makes the threading and the lower rim of smooth capsules on the neck of the bottles where screw caps must be applied.

Our Avt400 capping machine is almost entirely made of stainless steel; the only parts made of carbon steel are the internal mechanisms but they are galvanized.

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.

All moving gears are protected by safety guards. At the front of the machine there is a transparent plastic safety guard which is easily removable and allows to keep under control the machine while operating. This safety guard is equipped with a sensor so that the capping machine cannot work when this guard is removed.

SAFETY SYMBOLS:



General danger



Caution: refer to the operator's handbook



Caution: 230 Volt tension.



Caution: rotating gears. Severing of fingers.

2. TECHNICAL DETAILS

The Avt400 capping machine is equipped with a descending working group on which there is a threading head with two threading rollers and two rimming rollers (see picture 1). The threading rollers trace on the smooth capsule the thread of the bottle; whereas the rimming rollers make the lower rim on the capsule. The lower rim guarantees the product wholeness, because to unscrew and take off the cap it is necessary to cut the lower neckband which is fixed onto the bottle neck.

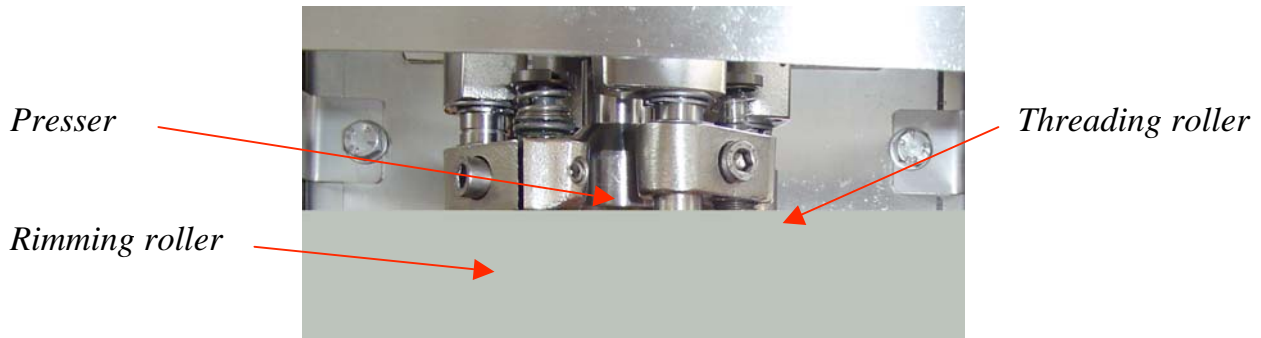
As a standard, the Avt400 capping machine is set for capsules with a 31,5 mm diameter and 24 mm high, which is the capsule mostly used in Italy.

However it is possible to adjust the machine to use other capsules with a diameter between 28 and 35 mm and higher than 18 mm.

The threading head adjustment is not easy and must be made by skilful personnel; so, it is better to indicate on the order the type of capsules that will be used and in case they are special, it is better to send some samples to the manufacturer to do the tests.

If the capsule sizes used are two, it is advisable to order two threading heads (one is optional and not included) already adjusted, so that it is enough to change the threading head when changing the capsule size. This operation is rather easy to carry out.

It is possible to use both round and square bottles and demijohns of 3 or 5 liters. The containers maximum diameter is 195 mm up to 355 mm high. PET containers or containers made of deformable materials cannot be used: all containers have to be able to bear the vertical push of the descending head of the machine.



Picture 1.

The threading time is about 2,5 seconds.

Avt400 capping machine:

height: 955 mm

width: 460 mm

length: 575 mm

weight: 75 kg

Avt400 capping machine equipped with wheeled support:

height: 1650 mm

width: 460 mm

length: 575 mm

weight: 90 kg

monophase motor:

feeding: 230 Volt, 50 Hz

rotating speed: 1380 r.p.m.

power: 0,55 Kw

3. OPERATING DIRECTIONS

Positioning. Place the Avt400 capping machine on a steady support in a lit up room. In case the filling machine is fitted up with a wheeled support, make sure it is placed on an even ground.

First of all disassemble the front safety guard and take off the antiscratch nylon film from the front plastic safety guard (if it is still present); then reassemble the safety guard making sure that the respective safety sensor is correctly located (see picture 2).

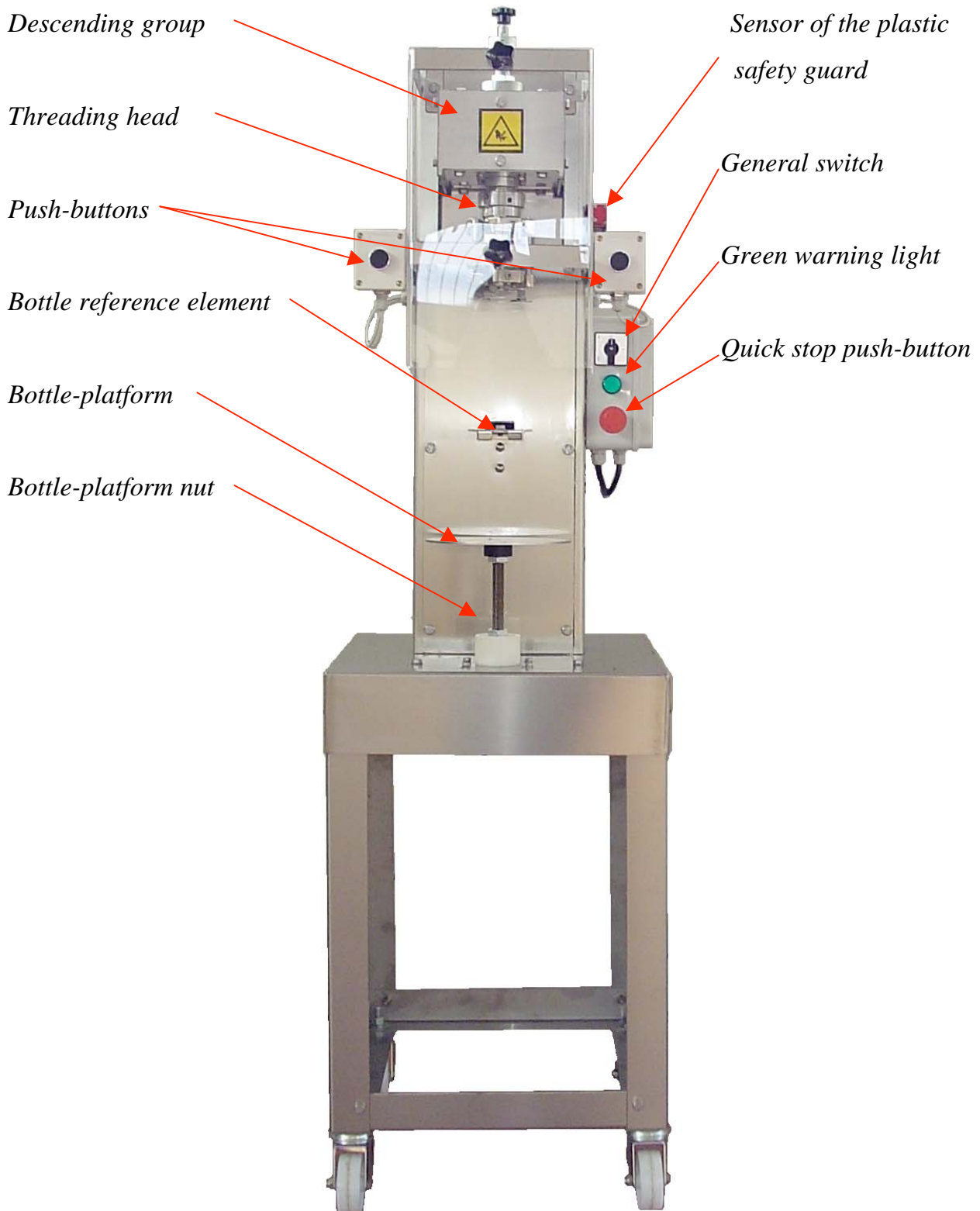
Now the bottle-platform must be set to the right position in order to obtain a good threading operation (see picture 2). To do that put one of the bottles to be capped (but without capsule) and check that the distance between the presser of the threading head (see picture 1) and the top of the bottle is 45 mm. If it is not so, unscrew the bottle-platform nut, turn the bottle-platform itself (this is screwed onto a plastic support which goes up or down depending on the rotating direction) until the distance is 45 mm and screw down the nut again. The 45 mm distance between the presser and the top of the bottles is valid only for capsules with a 31,5 mm diameter and 24 mm high; using capsules with different dimensions, this distance will be different, too.

Then position correctly the bottle reference element (see picture 2), in order to have a support during operation that allows to obtain a right and quick centering. To do that it is advisable to put a bottle onto the bottle-platform and adjust this reference in a way that the bottle itself is centred as much as possible as regards to the two threading rollers and the two rimming rollers.

At this point connect the plug of the feeding cable to a current-tap and turn the general switch to the "1" position (see picture 2). The Avt400 capping machine is in operating conditions and the green warning light is on.

Put a smooth capsule onto the neck of a bottle and locate this bottle onto the bottle-platform pushing it until it touches the bottle reference. To start the machine push the two

starting push-buttons at the same time (see picture 2). When the machine is operating, keep both your hands near the starting push-buttons and move them near the bottle only when the capping operation comes to an end.



Picture 2.

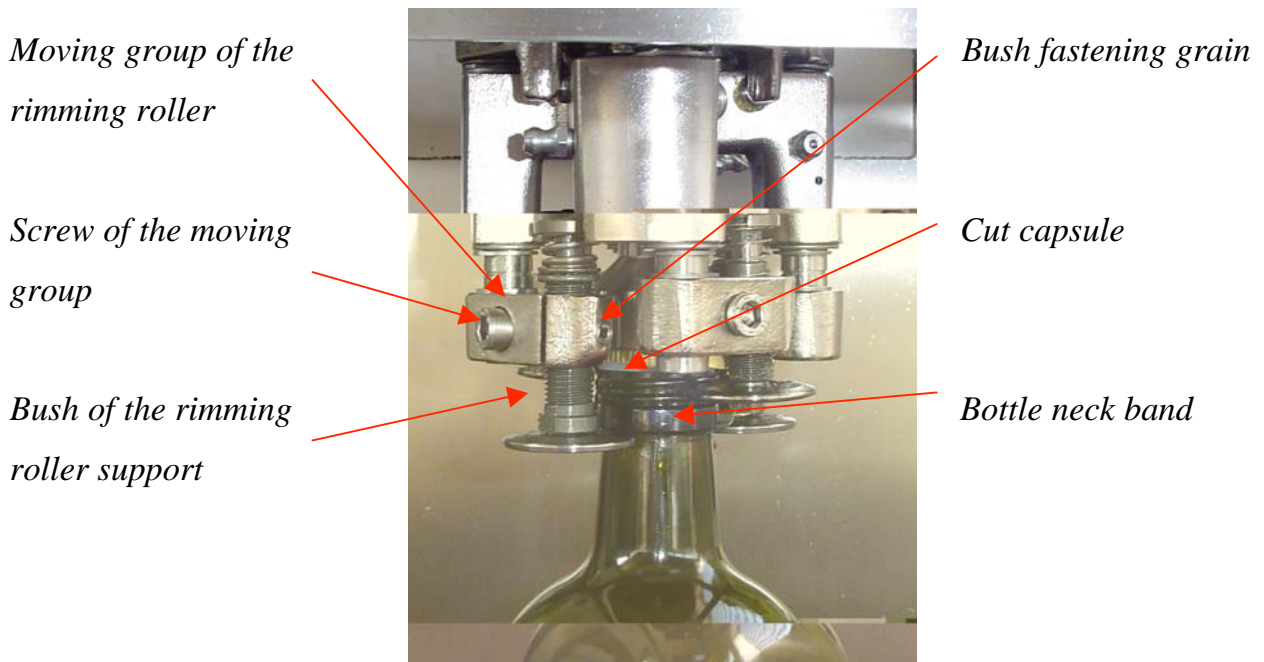
4. ADJUSTMENT OF THE THREADING HEAD

The threading and rimming head is already adjusted and no more adjustments are needed. To use a different capsule size the threading rollers and the rimming rollers must be adjusted, as follows.

First of all, get a presser suitable to the dimensions of the new capsule. To change it, loosen the two side grains which hold it tight (see picture 1).

Secondly, cut the side part of a capsule and keep only the upper part of it. Put this part on the top of a bottle, so that it gives you the right height and you can see well the threading and the lower neckband of the bottle, once you have located it onto the bottle-platform.

Then lower manually the threading head when the machine is turned off and the feeding cable is disconnected until you lean the presser onto the top of the bottle. Keep on turning until the four rollers are near.

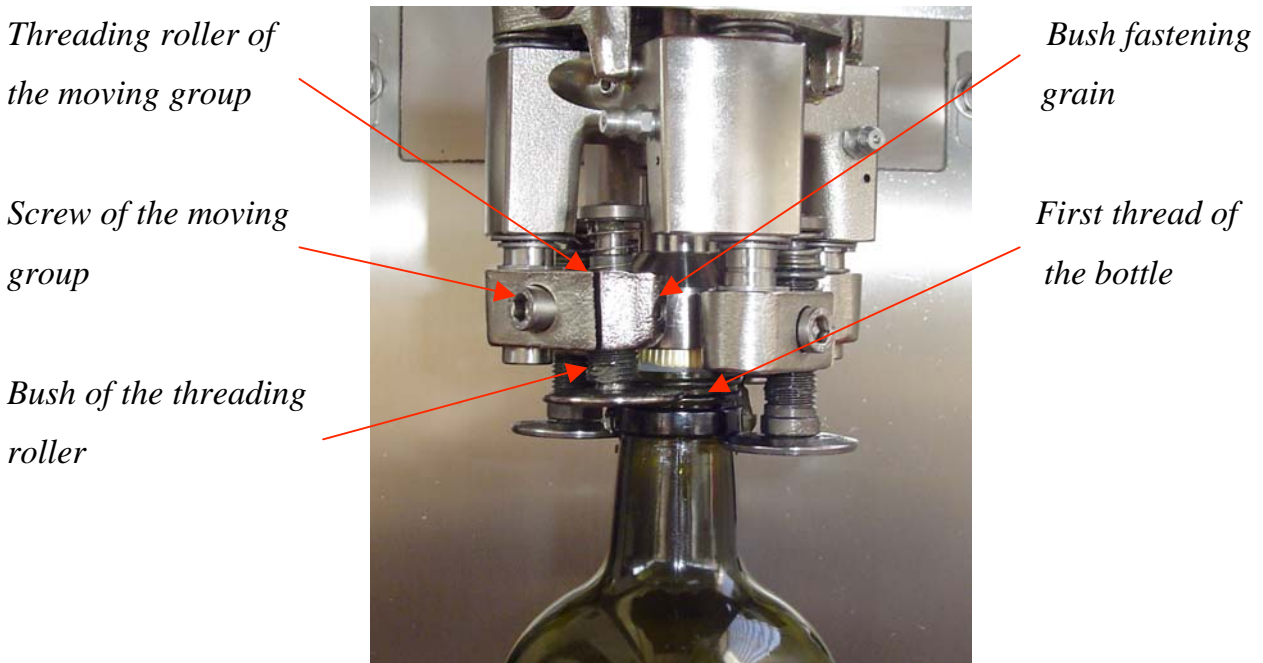


Picture 3.

If the two rimming rollers do not touch the neckband of the bottle, move near the whole moving group by unscrewing the respective fastening screw. At the end screw down this screw again using some strength (see picture 3).

The rimming roller must be able to work on the lower part of the bottle neckband. In case it is higher or lower, adjust the position of the bush of this roller. The bush is located on a threaded element; so, by screwing or unscrewing it, it is possible to adjust its height. On the bush there is a fastening grain which must be loosened when making these adjustments and must be screwed down again at the end; be careful not to tighten it too much (see picture 3).

Carry out the same operation on the second rimming roller.



Picture 4.

As regards to the threading rollers do the same adjustment on a roller at a time. First of all, if it is necessary, move near the moving group of the threading roller you are adjusting. To do this, loosen the fastening screw, move near the whole moving group and screw down again this screw using some strength (see picture 4).

Each threading roller must work on the lower part of the first thread of the bottle. In case the threading rollers are higher or lower, adjust the position of their respective bush. To do this loosen the fastening grain, screw down or loosen the supporting bush (which it is threaded; so it goes up and down) and retighten the grain; but be careful not to tighten it too much (see picture 4).

Now adjust the second threading roller to the same position as the first one.

At this point do a test. If the thread is not marked enough, disassemble the back safety plate and tighten more the drive spring by screwing down its respective nut (see picture 5). At first, turn the screw once; tighten it more only after another test, if it is necessary.

In case one of the four rollers is not centred as to the capsule, adjust the position of the respective moving group.

It is necessary to adjust the moving groups of the rollers even if, after tightening the drive spring, the result wanted is not achieved. In this case, it would be necessary to move these rollers a little near to the capsule.

5. MAINTENANCE

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

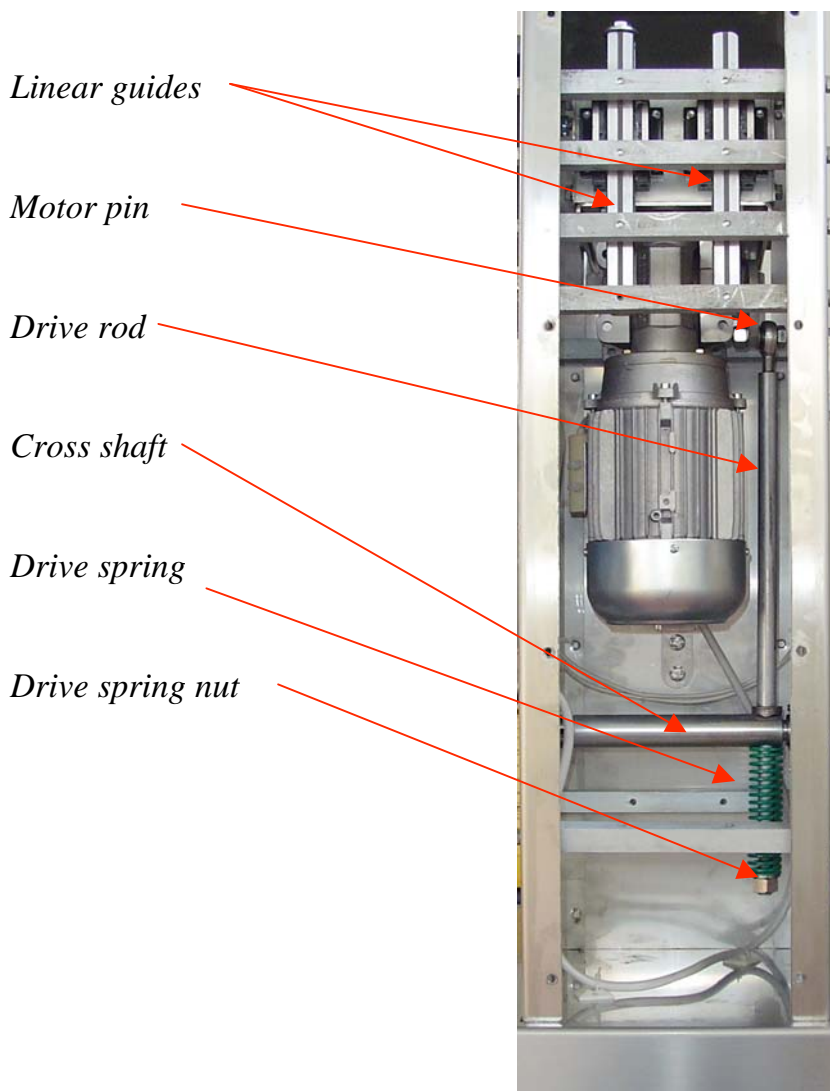
At the end of each working session turn the general switch to the "0" position and disconnect the feeding cable from the current-tap.

After three or four working sessions, or after a long stop, it is advisable to lubricate all moving parts, especially the two linear guides which hold the descending head of the machine, the drive rod near the sliding part as regards the cross shaft (see picture 5) and the motor pin (see picture 5). The toothed belt, which is inside the descending group and makes the threading head turn, does not need to be lubricated. However, it is advisable to check that there aren't any foreign matters or dust on it, because they could compromise its good functioning.

Moreover the threading rollers, the rimming rollers and all the moving parts of the threading head must be periodically greased and cleaned carefully.

IMPORTANT

Before intervening on the machine always bring the general switch to the "0" position and disconnect the feeding cable from the current-tap.



Picture 5.

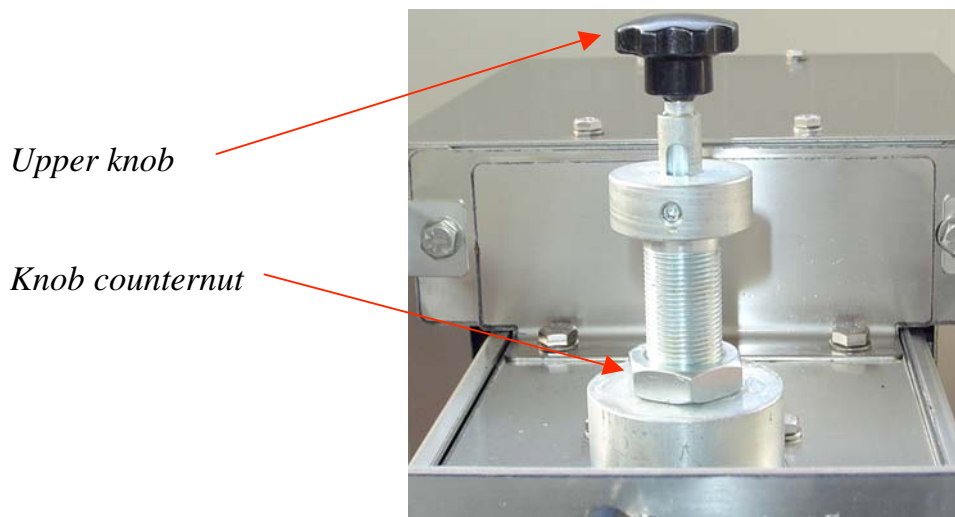
6. FAULTS AND REMEDIES CHECK LIST

In case after turning the general switch to the position "1", the green warning light does not turn on, check that both the plastic front safety guard sensor is correctly located and the quick stop switch was unintentionally turned. In the second case, it is enough to turn this switch clockwise.

If the thread of the capsule on the bottle neck is not marked enough, disassemble the machine back plate and screw down the drive spring nut (see picture 5). At first, turn the screw just once, only afterwards tighten it more in case it is necessary; anyway, do not tighten it too much.

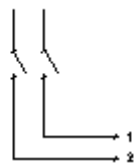
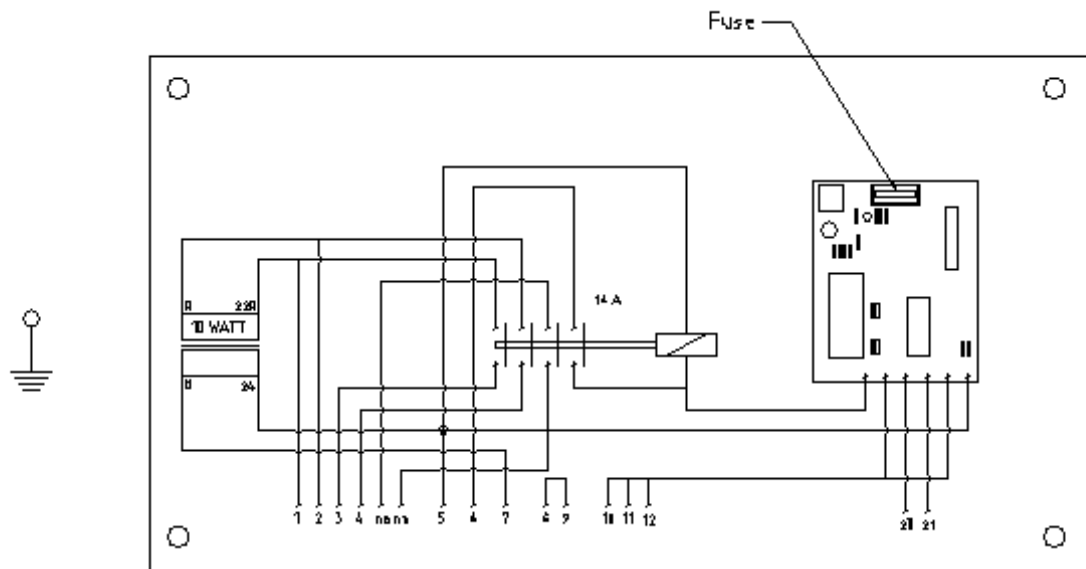
In case during its ascent the threading head touches the bottle threatening to make it fall, screw down the knob located in the upper part of the machine (see picture 6). To do this, first loosen the fastening counternut located under this knob. Even in this case one or two turns of screw should be enough.

In the event of strong vibrations or anomalous noises of the machine immediately push the quick-stop push-button and contact the local dealer or the manufacturer.

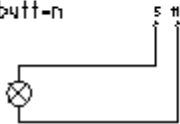


Picture 6.

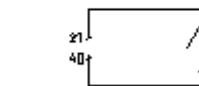
ELECTRIC SYSTEM



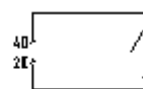
Quick stop
push-button



Sensor of
the plastic
safety
guard



Starting
push-button



Starting
push-button



End-of-stroke
sensor

