

MEP Labeler

Addendum: Setup and Maintenance

- Read this addendum and the MEP manual carefully before operating the labeler.
- One person should be assigned to maintain the labeler. Only this primary operator should make adjustments to the labeler. This primary operator should train additional operators. However, adjustments should be made by, or under the careful supervision of the primary operator.

Setup of the Labeler

The labeler has been setup and tested at St. Patrick's of Texas prior to delivery. The labeler arrives with a roll of St. Patrick's labels. All aspects of the labeler operation have been tested by St. Patrick's, including the photocell and timer.

The final adjustments, *and the only adjustments*, needed are

1. Bottle Diameter Adjustment
2. Bottle Height Adjustment
3. Photocell adjustment
4. Timer adjustment (if doing front and back labels)

Do NOT make any other adjustments to the labeler. Contact St. Patrick's in advance if you believe some other adjustment needs to be performed.

We recommend using the roll of St. Patrick's labels to perform the initial bottle height and bottle diameter adjustments.

1. Bottle Diameter Adjustment: Position the moveable rollers such that there is $\sim 1/4$ " gap between the rollers and the bottle.
2. Bottle Height Adjustment: Raise or lower the bottle platform to change height of labels on bottle.
3. Now replace St. Patrick's labels with your labels. Run unit. If labeler applies more labels than needed (for example 3 when applying back and front), then photocell must be adjusted.

Adjusting Photocell. See Fig. 1.

Photocell adjustment is specific to label and backing paper and is influenced by room lighting. Do not operate in sunlight.

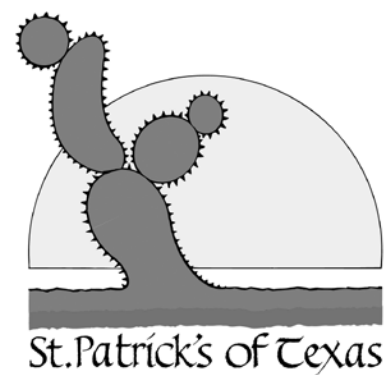
The technique that will always work is the following:

- Put labels on machine
- Turn photocell adjustment screw to ~ 3 o'clock position.
- Turn the labeller on
- Turn the photocell adjustment screw counterclockwise (small increments) until the machine stops when a label is passed in front of it.

4. Adjust timer. [when applying front and back labels]. Increase or decrease the timer delay to center back label.



Fig. 1. Photocell adjustment.



This manual and parts are available online.

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Periodic Maintenance

1. Keep labeler clean and dry. Do not store in humid or wet area.
2. Remove front cover and lubricate the chain annually. Aerosol spray of lithium grease works well.

DO NOT

1. DO NOT use OZONE to clean a labeler. Ozone will destroy all rubber and plastic components and should NEVER be used on equipment with rubber or plastic components.
2. DO NOT use a HOSE or PRESSURE WASHER to clean a labeler. Simply wipe down with clean damp cloth. Pressure washers should NEVER be used on equipment with bearings or electrical components.
3. DO NOT use METABISULFITE (or any harsh chemicals) for cleaning or sanitizing. Metabisulfite is not a sanitizer nor a cleaner and should NEVER be used as such. Metabisulfite is corrosive to most metals including stainless steel.

Problems and Solutions

Problem: Nothing happens when bottle is placed on bottle stand.

Solution 1: Emergency Stop button is pushed in. Pull it out.

Solution 2: Turn off unit and wait 30 seconds before turning it back on.

Problem: Three or more labels are applied per cycle.

Solution 1: Adjust photocell. If room lighting has changed, the photocell may need to be readjusted.

Solution 2. Do not operate in direct sunlight---this blinds the photocell.

Problem: Bottle spins out from between the rollers.

Solution: Moveable rollers must be moved closer to the bottle---gap ~1/4".

Problem: Black rubber sleeve moves up (or down) on roller.

Solution: See Fig. 2. Place compressed air nozzle between sleeve and white roller. Pull up or down on rubber sleeve while applying compressed air to reposition the black rubber sleeve.



Fig. 2. Use compressed air to reposition black sleeve.

CONDITIONS OF SALE AND WARRANTY

- 1. Read carefully this operator's handbook before operating our Etc 220 labelling machine.
- 2. M.E.P. guarantees his Etc 220 labelling machine in case of breakages caused by faulty components or incorrect assembly.
- 3. Our Etc 220 labelling machine has a 12-month warranty. 12 month period begins on shipping date from St. Patrick’s of Texas This warranty is valid only for the first owner of the labelling 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 labelling 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 labelling 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 Etc 220 labelling machine; however, the supply of spare parts of the previous models will be guaranteed.

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Electric system of the Etc 220 labelling machine

1. DESCRIPTION OF THE Etc 220 LABELLING MACHINE

Our Etc 220 semi automatic labelling machine makes it possible to use self-sticking labels and allows you to put front and back labels on cylindrical bottles.

Our Etc 220 labelling machine is almost entirely made of stainless steel or synthetic materials (such as delrin or rubber) which are resistant to wear; the only parts made of carbon steel are the internal mechanisms but they are galvanized.

All moving mechanisms are supported by ball-recirculation 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. TECHNICAL DETAILS

This labelling machine is suitable for self-sticking labels located on a continuous band which is wound round on a bobbin. It is possible to put a single label or both front and back labels but they have to be located on the same band.

The labels regard to the supporting band have to be disposed, as follows (see picture 1):

A dimension: more than 42 mm

B dimension: more than 42 mm

C dimension: maximum 25 mm

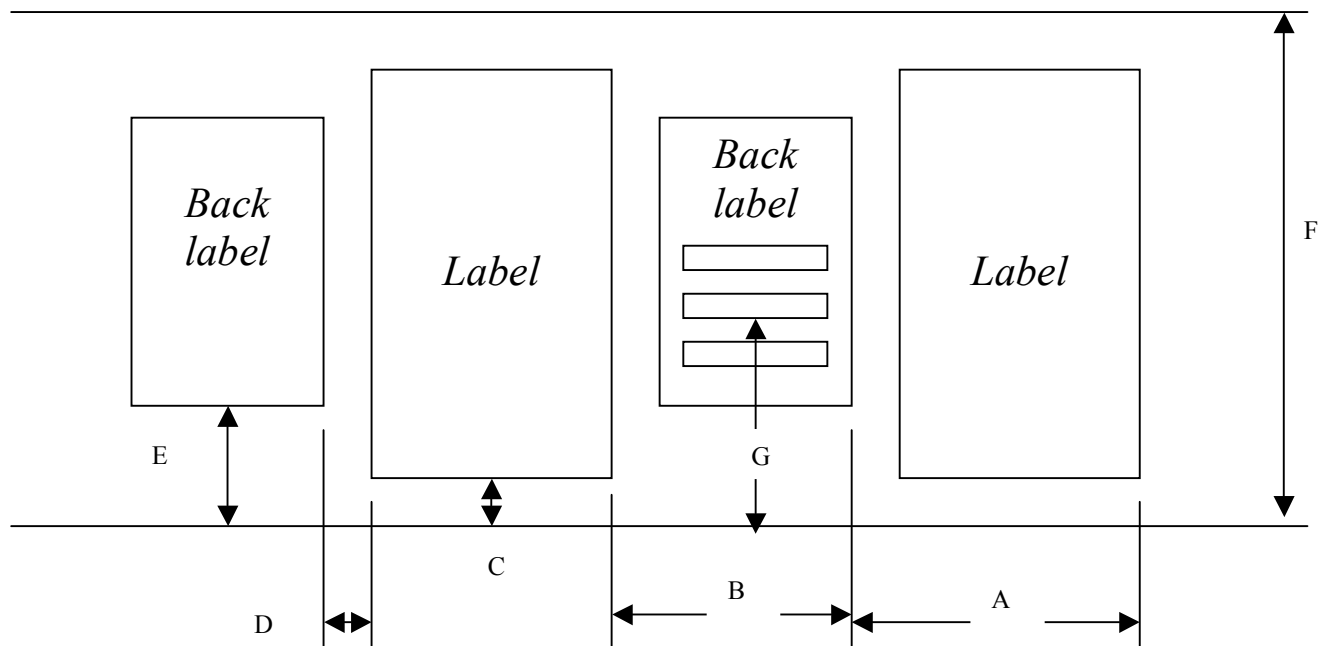
D dimension: more than 3 mm

E dimension: maximum 25 mm

F dimension: maximum 160 mm

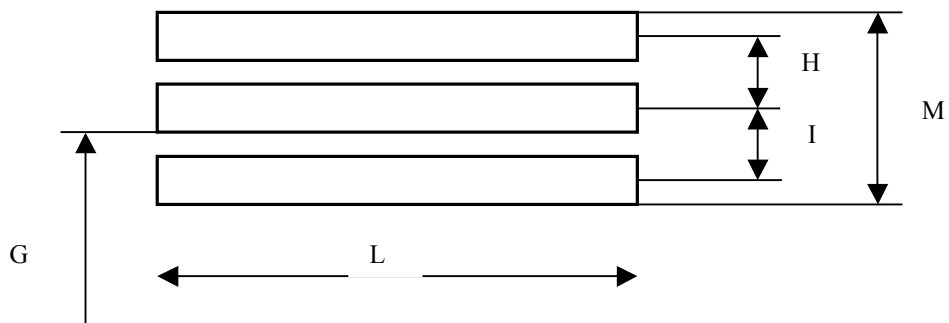
G dimension (space between labels band and lower part of the second printing line): the standard version is preset at 22 mm

Front and back label layout



Picture 1.

Print layout



Picture 2.

The stamp has the following layout (see picture 2):

types height 3 mm (different types can be requested when placing the order)

possibility to print on 3 lines

H dimension and I dimension: preset at 6,25 mm (these dimensions are referred to the printing lines barycentre)

L dimension: preset at 35 mm

types width: 3 mm

possibility to fit up to 11 types into each line

M dimension: preset at 15,5 mm

When a types height different from 3 mm is requested, the M dimension must be recalculated on the basis of the new types height.

Bobbin maximum external diameter: 200 mm

Inner diameter of the spool bobbin: 65 - 75 mm

Bobbin wound round counter clockwise (bobbin unwinding on the machine clockwise), labels on the external part of the bobbin

Cylindrical bottles

Bottles diameter between 60 mm and 112 mm

Our Etc 220 labelling machine is supplied as a bench version; as an option, it can be provided with a stainless steel wheeled support.

Etc 220 labelling machine:

height: 600 mm

width: 470 mm (800 mm when equipped with stamping device)

front length: 800 mm

weight: 60 kg

Etc 220 labelling machine with a stainless steel wheeled support:

height: 1120 mm

width: 490 mm (810 mm when equipped with stamping device)

front length: 800 mm

weight: 75 kg

Single-phase feeding: 110 Volt, 60 Hz

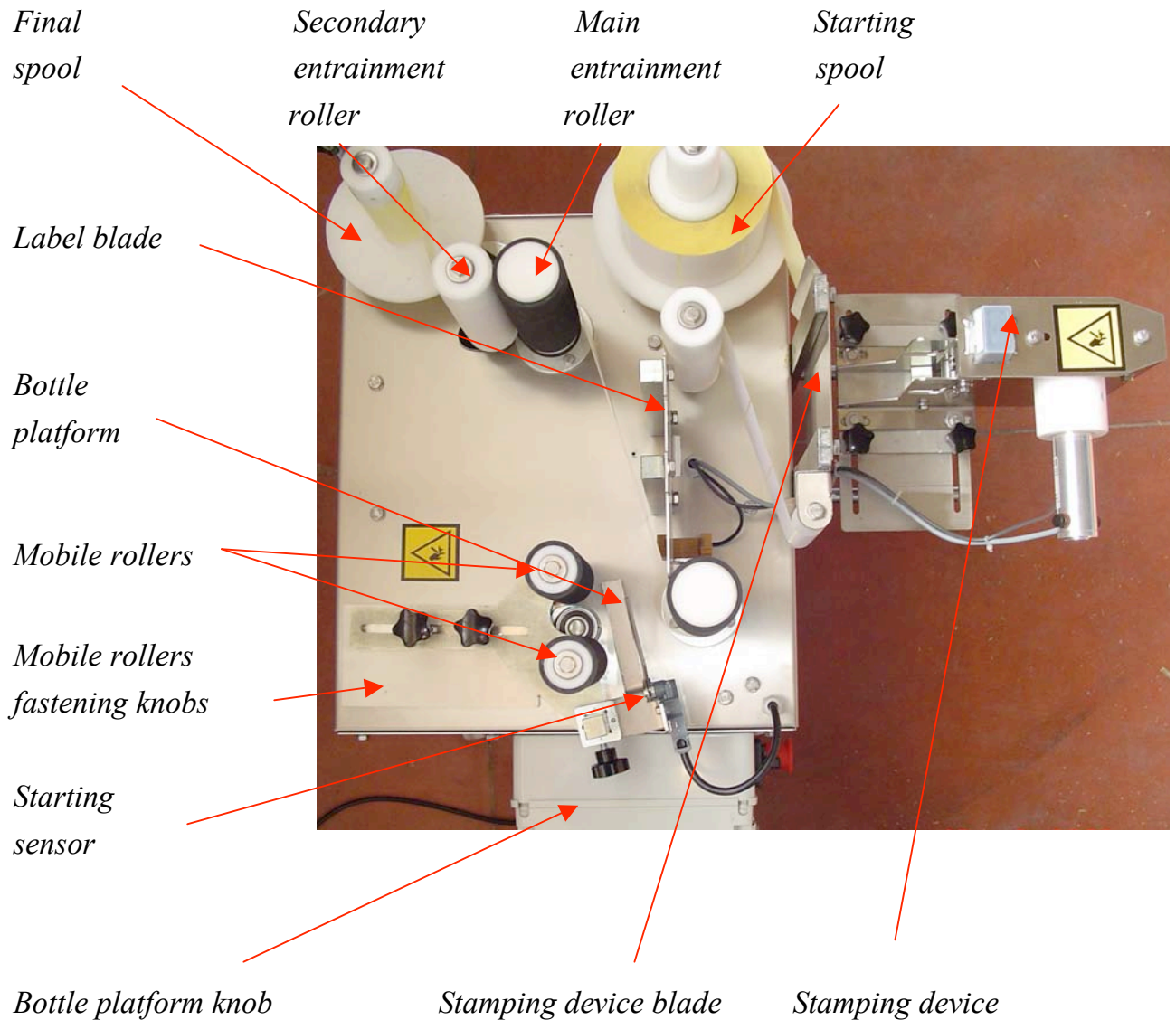
rotation speed (two motors): 1380 r.p.m.

power: 0.3 KW

The labelling time, that is the time between the bottle being located on the bottle platform and the labelled bottle being taken back, is 3,5 seconds.

3. INSTRUCTIONS FOR USE

In our Etc 220 labelling machine bottles must be placed vertically, so that it starts a sensor with a tongue which makes the machine start (see picture 3, starting sensor). Functioning consists in the two mobile rollers coming near and closing the bottles inside three rubber rollers. Bottles start rotating while the band where labels are located is drawn and made pass on a blade which makes it turn 360°. This makes a label come off the band (or a couple of labels, front-and back labels) and it being applied on the bottle. Now the mobile rollers go back, the labelled bottle can be taken off and a new one can be inserted.



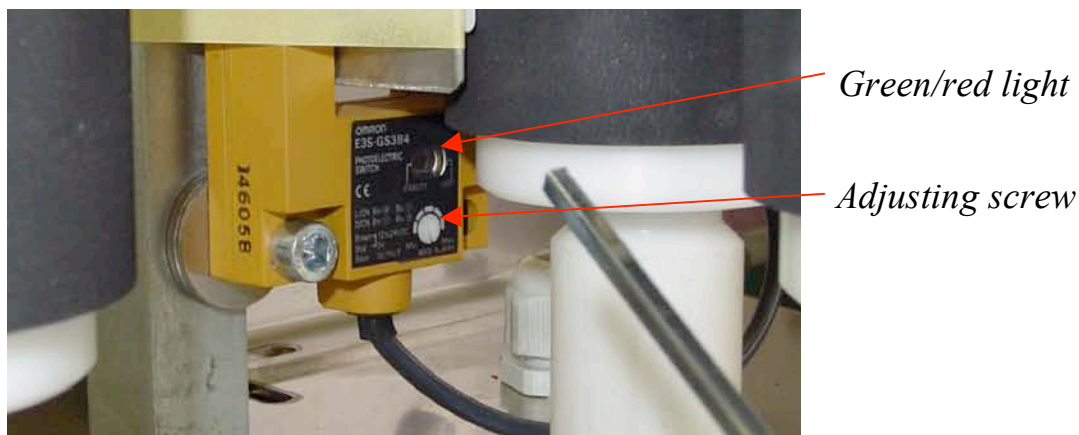
Picture 3.

4. OPERATING DIRECTIONS

The Etc 220 labelling machine must be placed on an even ground, in a lit up room and far enough from other machines.

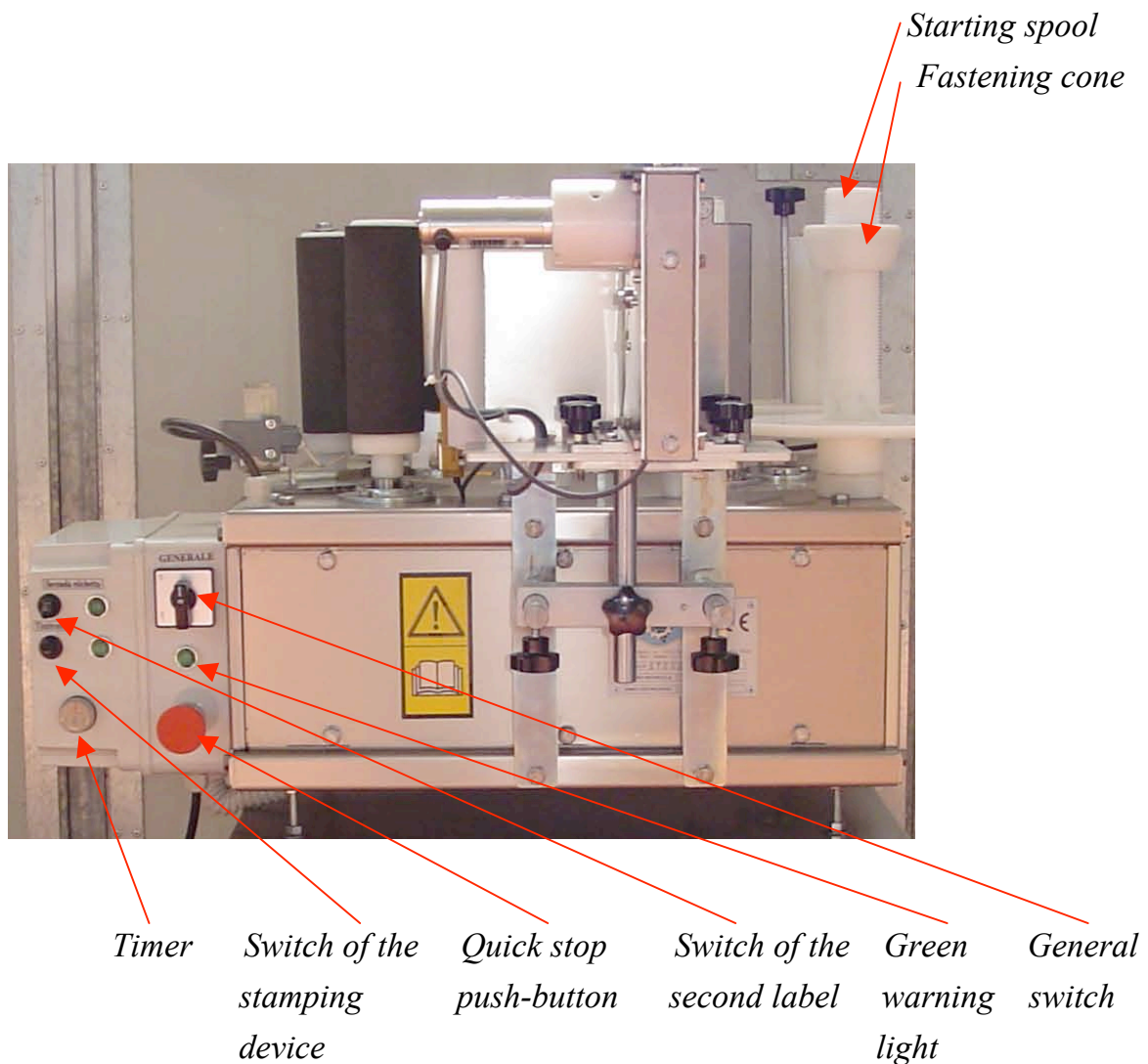
This machine must be used by an operator at a time and when the machine is operating nobody else should be near.

First of all, adjust the position of the mobile rollers. To do this, loosen the knobs which keep it stationary (see picture 3, mobile rollers fastening knobs) and arrange these rollers in a way that it is easy to put the bottles in and take them off. It is advisable to place a bottle among the rollers leant against the fixed one and move the mobile rollers up to 3 mm near the bottle. To leave less space would make it difficult to position the bottles and take them off, whereas a larger space would not assure the right closing and labels could be applied irregularly.



Picture 4.

In order to avoid anomalies in functioning, check the right degree of sensitivity of the photocell. To do this, insert the band edge with a label on it into the photocell fork. When the band without any label on it is inserted, the green warning light located on the lower part of the photocell turns on; whereas, when the band with labels on it is inserted, the red warning light turns on (see picture 4). In case this does not happen, the adjusting screw must be screwed or unscrewed. When it is turned clockwise, the photocell degree of sensitivity increases; so, if when inserting the band without any label on it the green warning light does not turn on, then the adjusting screw must be screwed.



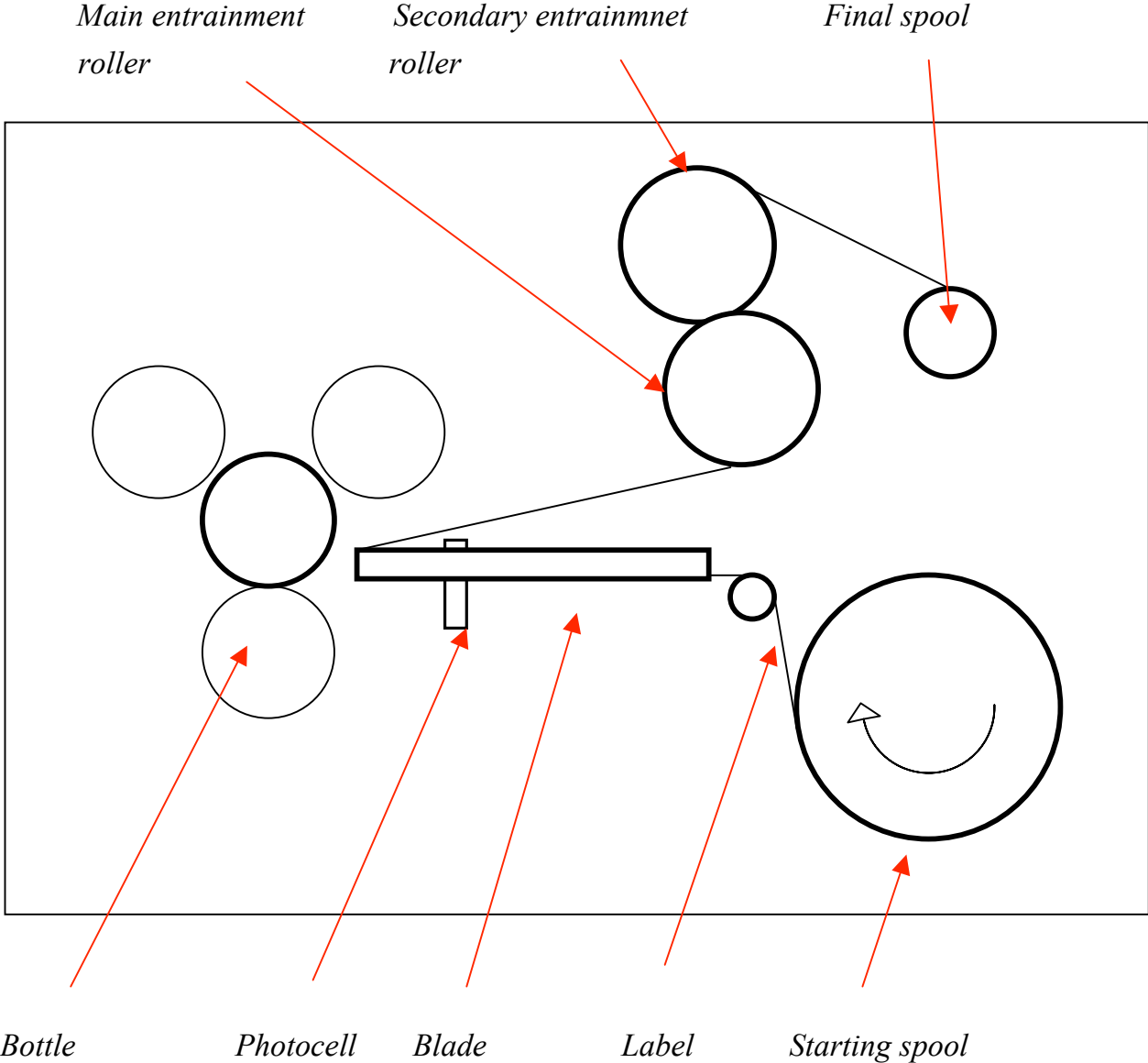
Picture 5.

Afterwards, place the labels band on the machine. To do this, remove the fastening cone from the starting spool shaft (see picture 5), insert the labels bobbin and screw this cone again using some strength so that the bobbin adheres to the shaft.

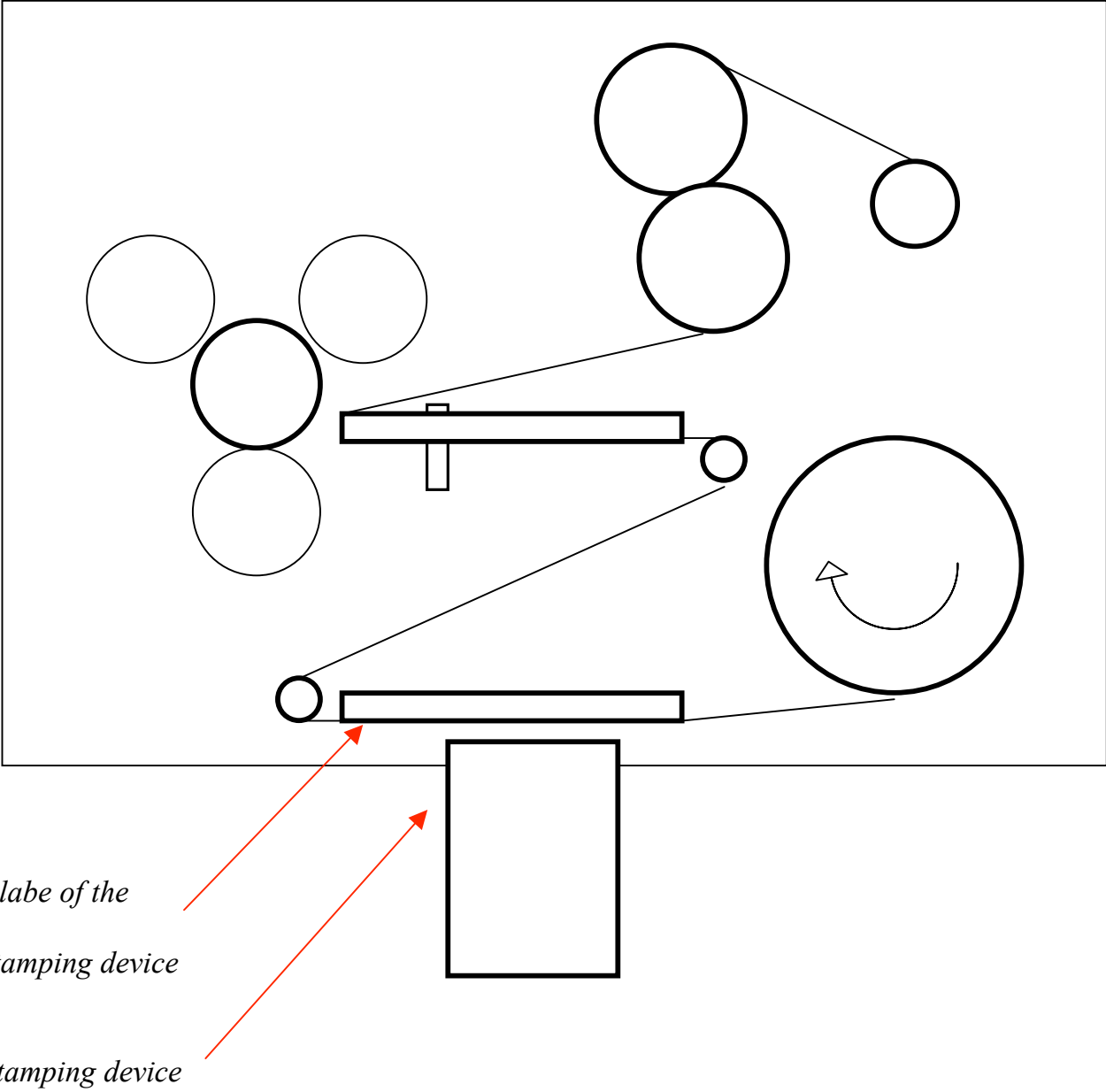
The band must be located on the machine so that it follows the way of picture 6.

Labels must pass between two rollers which are kept pressed one against the other by a spring which is a little stiff (see picture 6, entrainment rollers).

To carry out this operation, the two rollers must be spaced out and the labels band must be put inside them, paying attention to keep it in line with the height of the starting-and final spool as far as possible.



Machine without stamping device



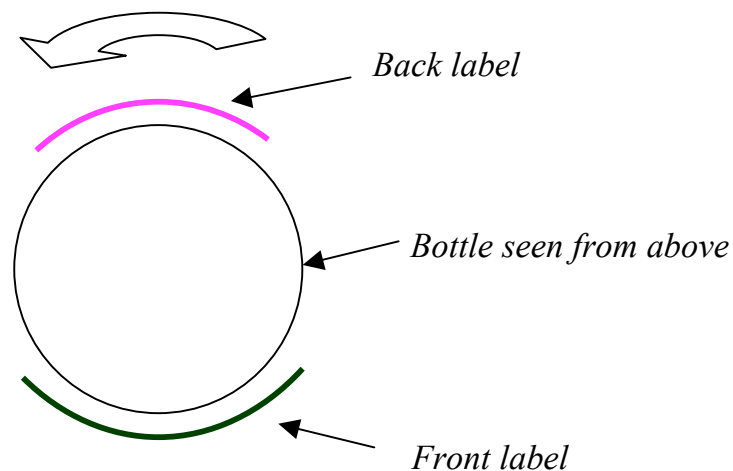
Machine with stamping device

Picture 6.

Now connect the machine to the current feeding and turn the main switch to position "1"; the green indicator will turn on (see picture 5). The machine is ready for work and it is enough to put a bottle inside the three rollers to have it labelled.

CAUTION

Before starting work check that on the machine there aren't any spanners or other fittings used to carry out the necessary adjustments. Once a bottle is placed on the bottle platform keep your hands away from the machine and move them near only once the bottle is labelled.

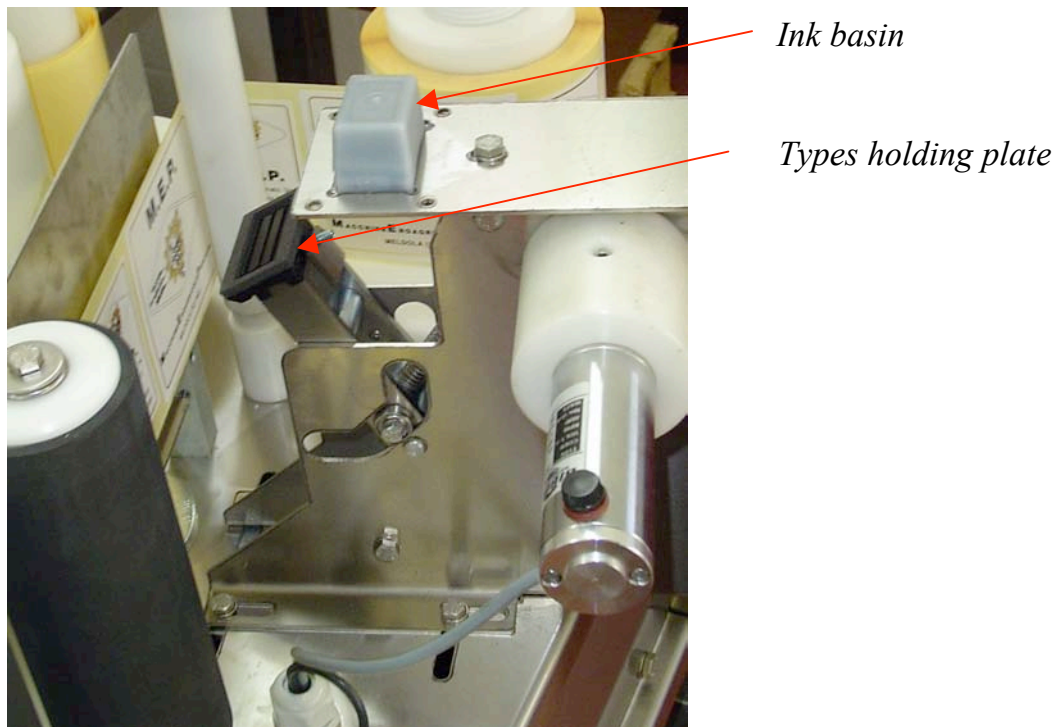


Picture 7.

In case one wants to apply a second label too, one has to move the little lever located at the front of the control box (see picture 5). By moving this lever the respective green warning light will turn on. Now lay a bottle and the second label will be applied, too.

If you want to put both front-and back label, and the two labels are not placed correctly, adjust the special adjusting timer (see picture 5).

Refer to the plan of picture 7: by turning the timer knob clockwise, the time between the application of the two labels increases; so, the back label will be moved in the direction of the arrow, that is counter clockwise. In other words, if you look at the bottle from the front and the space on the right between front-and back label is less than that on the left, the timer knob must be moved clockwise.



Picture 8.

In case the labelling machine is equipped with an optional stamping device, at the front of the control board there are two little levers with their respective green warning light.

The second lever serves to turn on the stamping device.

Once the labels are applied, the stamping device is started automatically by putting a bottle on the bottle platform and it prints on a part of the label when it is still on the blade.

It is possible to print up to three lines by laying on the holding plate (see picture 8) the numerical types the machine is equipped with. To lay the types, one can start the stamping device (by putting a bottle on the bottle platform, for example) and stop it by pressing the red quick-stop push-button in the middle of its run. Now it is possible to arrange the stamp wanted using the special tweezers. The types have a dovetail; so, to arrange them on the holding plate, it is necessary to insert them sideways and drag them to the spot wanted using the tweezers.

This labelling machine is equipped with five sets of numerical types from "0" to "9" and two indelible ink basins.

Before starting work, open one of the two ink basins, place it in the upper part of the stamping device (see picture 8) and insert it under the plate by pushing it until it gets stuck.

In the rest position the types holding plate is in touch with the ink basin. During its working run the types holding plate moves, rotates, stamps and goes back to its starting position, so that it closes and prevents the ink from staying in touch with the air for a long time. It is easier to place the basin when the stamping device is in the middle of its run (see picture 8).

At the end of work, clean the stamp types using blotting paper, take off the ink basin and close it by means of the special ink-pad. This operation has to be carried out when the stamping device is in the middle of its run, too.

The position of the stamping device can be adjusted in the same direction as the label blade by changing the position of its screws and moving it to a different one among the four longitudinal long holes located on the machine plane. This adjustment will probably be necessary because if the label width changes, the respective position between stamp and label changes, too.

Eventually, it is possible to adjust up to 25 mm the height of the label applied on the bottle. To do this, the bottle platform knob must be loosened, the height of the bottle platform changed and the knob must be screwed down again (see picture 3).

CAUTION

Before intervening on the machine for any adjustments always bring the starting switch back to the "0" position.

5. FAULTS AND REMEDIES CHECK LIST

In case labels are applied slightly oblique on the bottles, you must check that the band lower part is parallel with the step of the label blade (see picture 3). If it is not so, separate a little the two entrainment rollers using some strength and adjust the band position. The white plastic roller can be moved, whereas the rubber one is fixed.

In case after placing a bottle on the bottle platform the machine does not start, check that the quick-stop pushing button was not pressed (see picture 5). In that case, turn it clockwise and try again. If the problem persists check that the starting sensor (see picture 3) is properly started by the bottle; if it is not so, move it upwards by loosening the respective screws.

If after a bottle has been labelled the labels band is not stretched, one can try to screw down the fixing cone by using more strength (see picture 5).

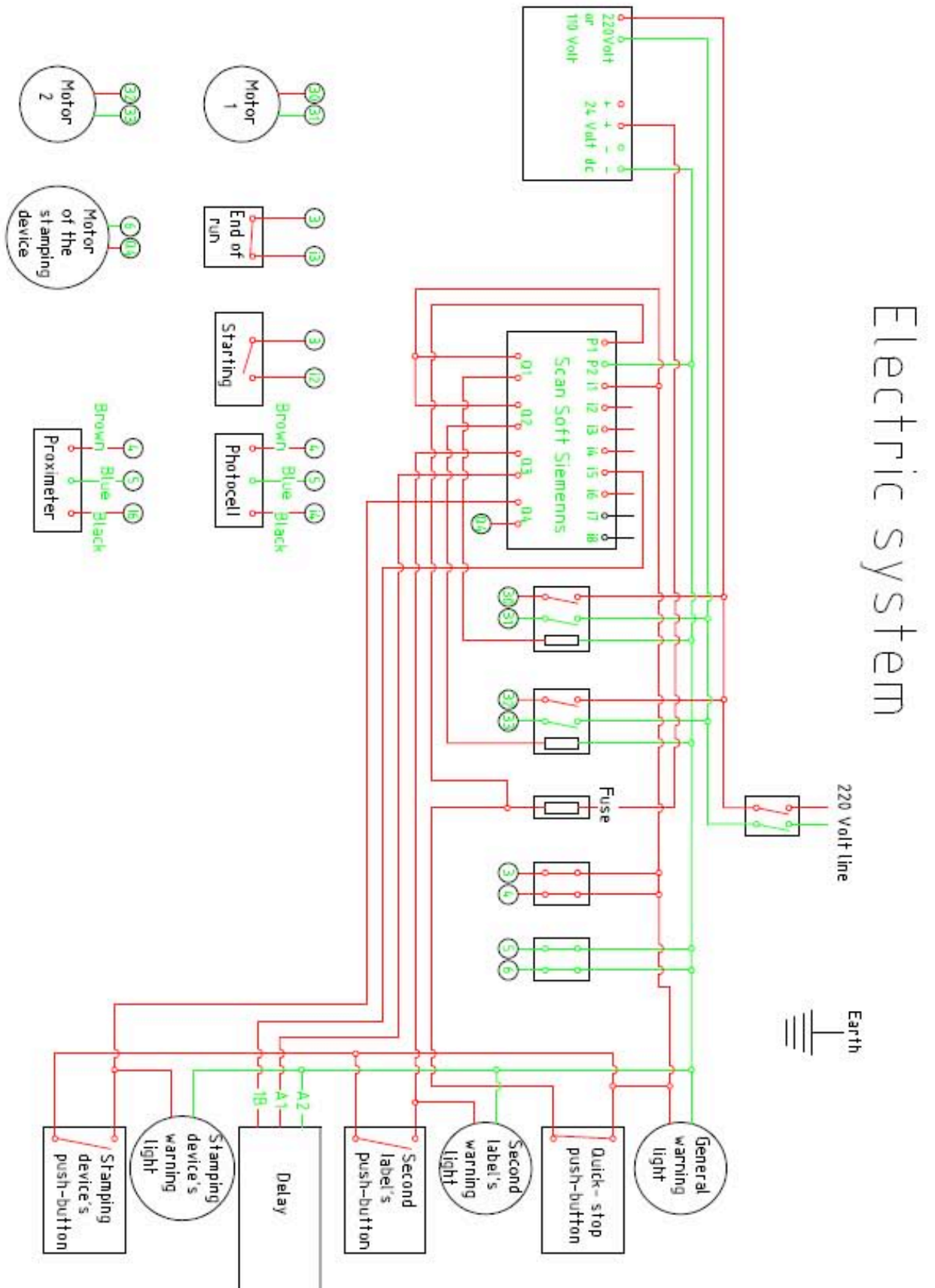
If for whatever reason should come a strange noise from inside the machine, press immediately the quick-stop push-button (see picture 5). You could try to spot the problem by taking off the back panel of the machine, but it is better not to go on trying too long and contact an authorized person.

6. MAINTENANCE

At the end of work it is advisable to remove from the rubber rollers any glue residual products. They are of little importance, but if they are neglected, after some time, they can form incrustations hard to be removed. At the end of work turn the general switch to the "0" position (see picture 5) and disconnect the current feeding cable, too.

When using the machine after a long stop, it is advisable to lubricate all moving parts. To do this, remove the back panel of the machine and lubricate the drive chain, the linear guides and all the moving parts using grease.

ELECTRIC SYSTEM OF THE Etc 220 LABELLING MACHINE



Electric system

