

# P55 Champagne Corker

## Setup and Maintenance

- Read this carefully before operating the corker.
- One person should be assigned to maintain the corker. Only this primary operator should make adjustments to the corker. 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 Corker

The corker has been setup and tested at St. Patrick's of Texas prior to delivery.

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

1. Bottle Height Adjustment
2. Bottle Diameter Adjustment
3. Cork Length Adjustment
4. Cork Depth Adjustment

**Do NOT make any other adjustments to the corker.**

**Corker must be off and unplugged when making adjustments or performing maintenance.**

1. Bottle Height Adjustment: See Fig 1. This adjustment must be performed **BEFORE** the other adjustments. The top of the bottle **MUST** be at the indicated level (or slightly higher). See Fig. 2. Loosen the two large jam nuts on the threaded rod below the bottle platform to make this adjustment. *Please note: This adjustment is the most commonly overlooked.* In particular, clients forget to make this adjustment when they change bottles.



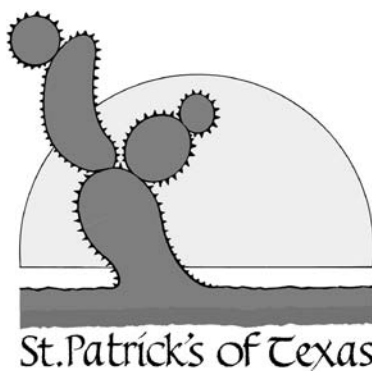
Fig. 1. Bottle Height---Top of bottle **MUST** be at this height or slightly higher.



Fig. 2. Raise or lower bottle stand. Adjust Back Support to match Bottle Diameter.

This manual and parts for Corkers are available online.

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2. Bottle Diameter Adjustment: See Fig. 2. The back support on the bottle stand should be positioned to center the bottle with the center of the white cone (below the jaws). The white cone will center the bottle, so this does not need to be precise---within 1/4" of center is sufficient.
3. Cork Length Adjustment: See Figure 3. The corker has been set up for 48 mm length cork. If your cork is shorter or longer, you may need to adjust the cork descent tube. Loosen the black knob on top to reposition the cork descent tube.
4. Cork Depth Adjustment: Make this adjustment AFTER the Bottle Height Adjustment. The Bottle Height MUST be correct in order to properly make this adjustment.
  - 4.1. Connect to 220V outlet. Connect air line to the regulator on left side of unit. See Fig. 4. Set pressure of your air compressor to >80 psi. Set regulator on corker to 70-80 psi.
  - 4.2. See Fig. 5. Turn 0-10 dial clockwise to maximum 10.
  - 4.3. Raise and lower the cork pushing pin (Fig. 3) to adjust the depth of the cork in the bottle. *Adjust the cork pushing pin such that the top of cork is level with top of bottle.*
  - 4.4 Now adjust the dial (Fig 5) until top of cork is above top of bottle. Typically this will be at about 3 on the 0-10 scale. It will take several trials to get the precise setting.

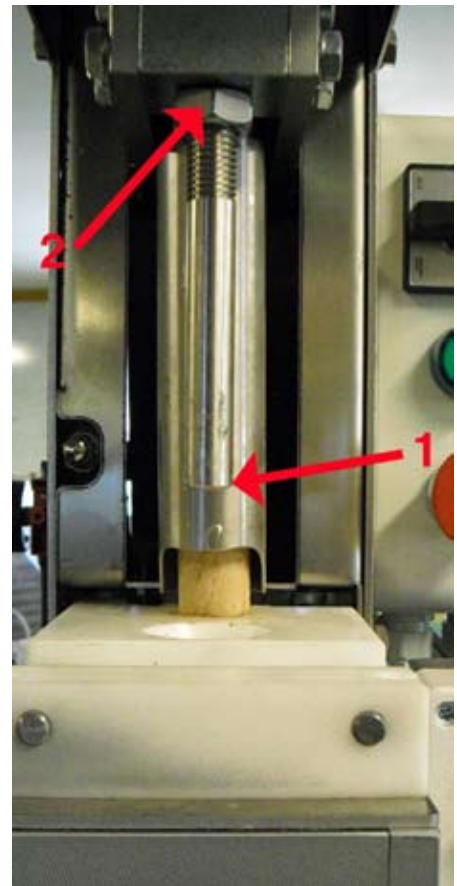


Fig. 3. Adjust Cork Descent Tube (1) if necessary. Cork Pushing Pin(2). **ONLY MAKE THIS ADJUSTMENT AFTER BOTTLE HEIGHT ADJUSTMENT.**



Fig. 4. Air line connected to regulator. Set air compressor pressure >80 psi. Set corker regulator to 70-80 psi.



Fig. 5. Dial to precisely determine the length of cork above the top of bottle neck.

## Periodic Maintenance

1. Keep Top Plate clean. Wipe the top plate with clean damp cloth daily or as needed to keep cork dust to minimum. Windex or mild soap solution works well.
2. **Be sure unit is off and unplugged.** Apply food grade grease to the jaws through opening in top plate. Simply dab with finger. Run unit several times without cork. Now, run several cork thru corks to remove excess grease. Also, apply small dab of grease between cork pusher and post.
3. Lubricate moving parts annually. See Fig. 6. Remove front AND back covers. Lubricate all moving parts. Aerosol spray of lithium grease works well.

## DO NOT

1. DO NOT use OZONE to clean a corks. 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 corks. 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.
4. DO NOT change any parameters of the inverter.
5. DO NOT remove the jaws or make any adjustments to the corks except those on the previous pages. Contact St. Patrick's in advance if you believe some other adjustment needs to be performed.



Fig. 6. Front of corks. Lubricate all moving parts annually. Be sure to lubricate the rail that moves the bottle platform, as well as all other moving parts. Some parts are easier to lubricate from the back so be sure to remove the back cover as well.

## Problems and Solutions

Problem: Nothing happens when you push the microswitch or start buttons.

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

Solution 2. Interlock is open. Clear safety shield must be in place to activate the interlock.

Problem: Cork does not come down the cork descent tube.

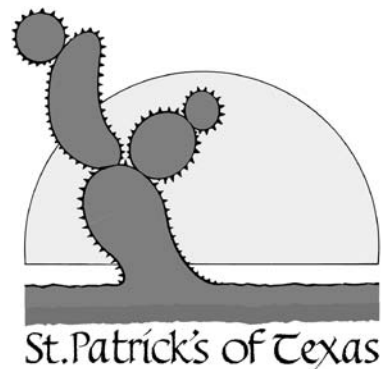
Solution: Small spring (Tap0008) inside hopper is broken. Replace spring. (available online).

Problem: Bottle platform moves up and down properly when unit is first started. Then begins to operate sluggishly.

Solution: Drain the water from your air compressor tank. Air compressors condense water under pressure. The tank should be drained after each days use.

This manual and parts for  
Corkers are available online.

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## **CONDITIONS OF SALE AND WARRANTY**

1. Read carefully this operator's handbook before operating our P55 corking machine.
2. M.E.P. guarantees his P55 corking machine in case of breakages caused by faulty components or incorrect assembly.
3. Our P55 corking machine has a 12-month warranty. Warranty begins on shipping date from St. Patrick's of Texas. This warranty 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 P55 corking machine; however, the supply of spare parts of the previous models will be guaranteed.

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- 6 .....Maintenance

# 1. DESCRIPTION OF THE P55 CORKING MACHINE

Our P55 corking machine is almost entirely made of stainless steel. Moreover all those parts which could come into contact with the corks are made of materials that do not react with the air (such as stainless steel, plexiglass, delrin), in order to prevent all chances of polluting corks with rust splinters or whatever other substances bad for health.

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. As regards the jaws which is one of those parts that the operator could need to reach often, they are fitted up with an easily removable safety guard. However this safety guard is equipped with a sensor, so that the corking machine cannot work when it is removed.

## SAFETY SYMBOLS:



General danger



Caution: refer to the operator's handbook



Caution: 380 Volt tension.



Caution: rotating gears. Severing of fingers.

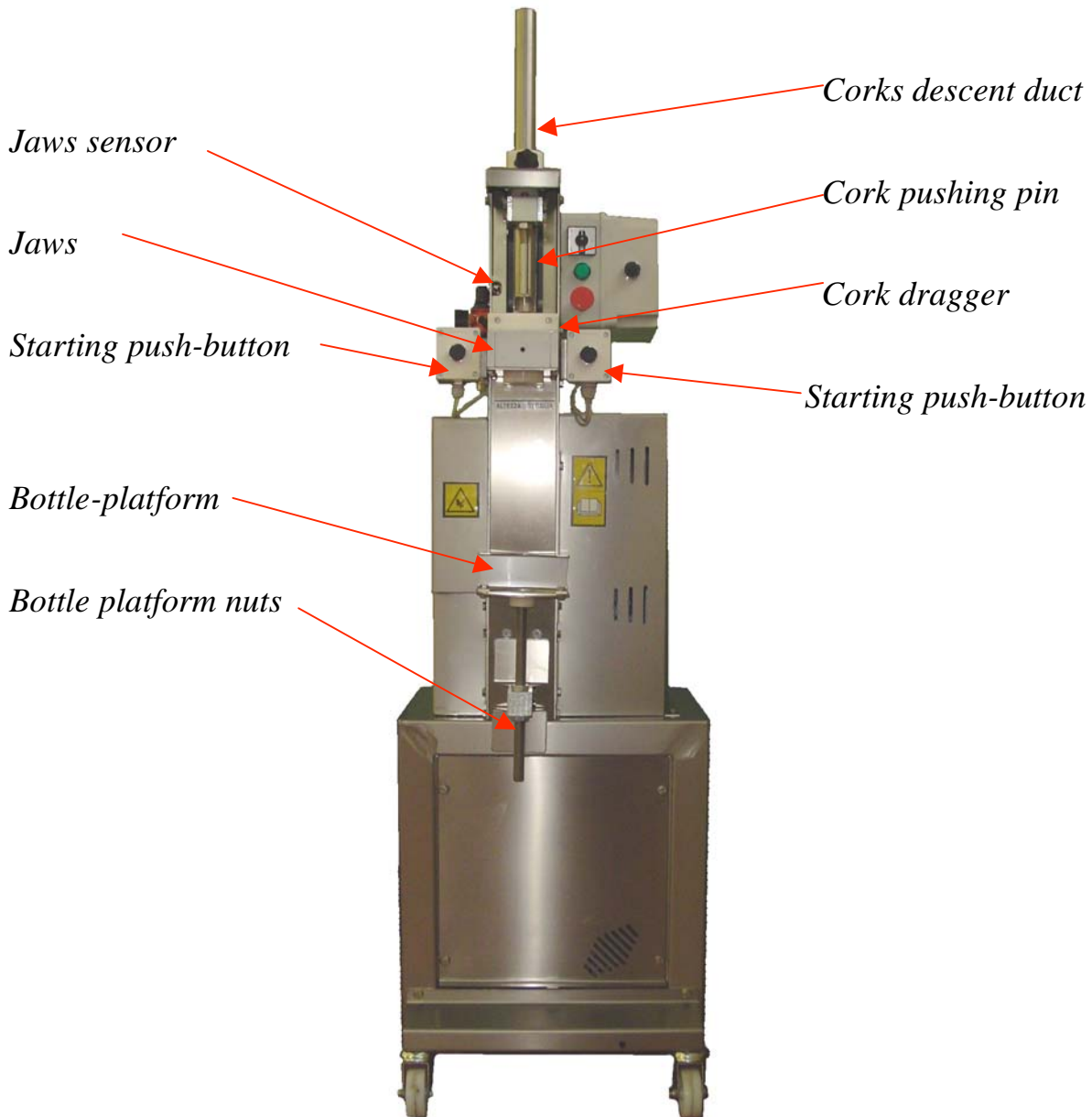
## 2. FUNCTIONING

Our P55 corking machine is suitable for corking sparkling wines using cylindrical corks (they usually have a 31 mm diameter and are up to 49 mm high) which are inserted 24 mm deep into the bottle neck and the remaining part stays outside the bottle (they are the characteristic Champagne corks). These corks have a flat end and a bevelled end, which is the part that stays outside the bottle neck. The bevelled part has this special shape because it is easier to apply the wire-hood afterwards whose function is that of holding back the Champagne cork against the push of the wine gas.

Our P55 corking machine has a cylindrical upper duct inside which the corks must be inserted. This model cannot be equipped with a corks automatic loading device because these corks have a direction and the bevelled part must be upwards.

The jaws of the machine squeeze the corks elastically until they take a diameter which is near that of the bottle neck. In this way the corks can be pushed easily into the bottle neck preventing the corks from being damaged. Once the corks are

inside the bottle neck they will expand again and will guarantee that the bottles are sealed.



**Picture 1.**

At the beginning of the working cycle the bottle-platform goes up (see picture 1), the jaws close, the cork pushing pin goes down (see picture 1, cork pushing pin) and inserts the cork partially into the bottle neck. When a part of cork has been inserted, the bottle-platform goes down so that the other part of cork stays outside.



At this point the return cycle begins: the cork pushing pin goes up, the corks dragger moves to pick up a cork from the corks descent duct and let it drop into the jaws for the next corking.

### **3. TECHNICAL DETAILS**

Our P55 corking machine is suitable for cylindrical Champagne corks whose diameter is 31 mm and whose height is 49 mm. It is also possible to use cylindrical flat corks (those that do not come out of the bottle neck) whose diameter is more than 26 mm and that are less than 50 mm high. This corking machine is suitable for corks whose diameter is rather large; then it is not suitable for corks too small.

The P55 corking machine can cork bottles of different shapes up to 375 mm high and whose diameter is smaller than 115 mm.

The corking time (that is, the time between the two starting push-buttons being pushed and the bottles being corked) is about 1,8 seconds.

P55 corking machine:

height: 1780 mm

width: 520 mm

length: 560 mm

weight: 110 kg

Three-phase motor:

feeding: 230 Volt, 60 Hz

speed rotation: 1380 r.p.m.

power: 1,5 Kw

Screw reducer without end:

reduction ratio 1/45.

## 4. OPERATING DIRECTIONS

Positioning. The P55 corking machine must be placed on an even ground in a lit up room and far enough from other appliances.

Make sure that the screws which hold the safety guards are screwed tight, especially the plastic ones which hold the switch-board.

Clean all the parts that come into contact with the corks, such as the corks descent duct, the cork pusher, the jaws and the cork-pushing pin (see picture 1).

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

Take off the antiscratch blue/white nylon film from the front plastic safety guard, tighten the fastener again and make sure that the square brass element can activate the safety sensor (see picture 1, jaws sensor).

Adjust the height of the bottle platform by undoing the two bolts (see picture 1) which hold it tight, then re-tighten the bolts so that the top of the bottle is near the "bottle-height" line underneath the jaws.

Connect the feeding cable to a 380 volt current-tap, and connect the compressed-air through the quick-joint located on the governing filter which is on the machine top left side. Set the pressure between 4 – 6 bar by turning the governing filter black knob and check the pressure in the manometer. In case the pressure governing knob is jammed and it doesn't turn, lift it first. Turning it clockwise the pressure increases; in the opposite direction the pressure decreases.

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 2). Now the green warning light should be on and the machine is in working conditions.

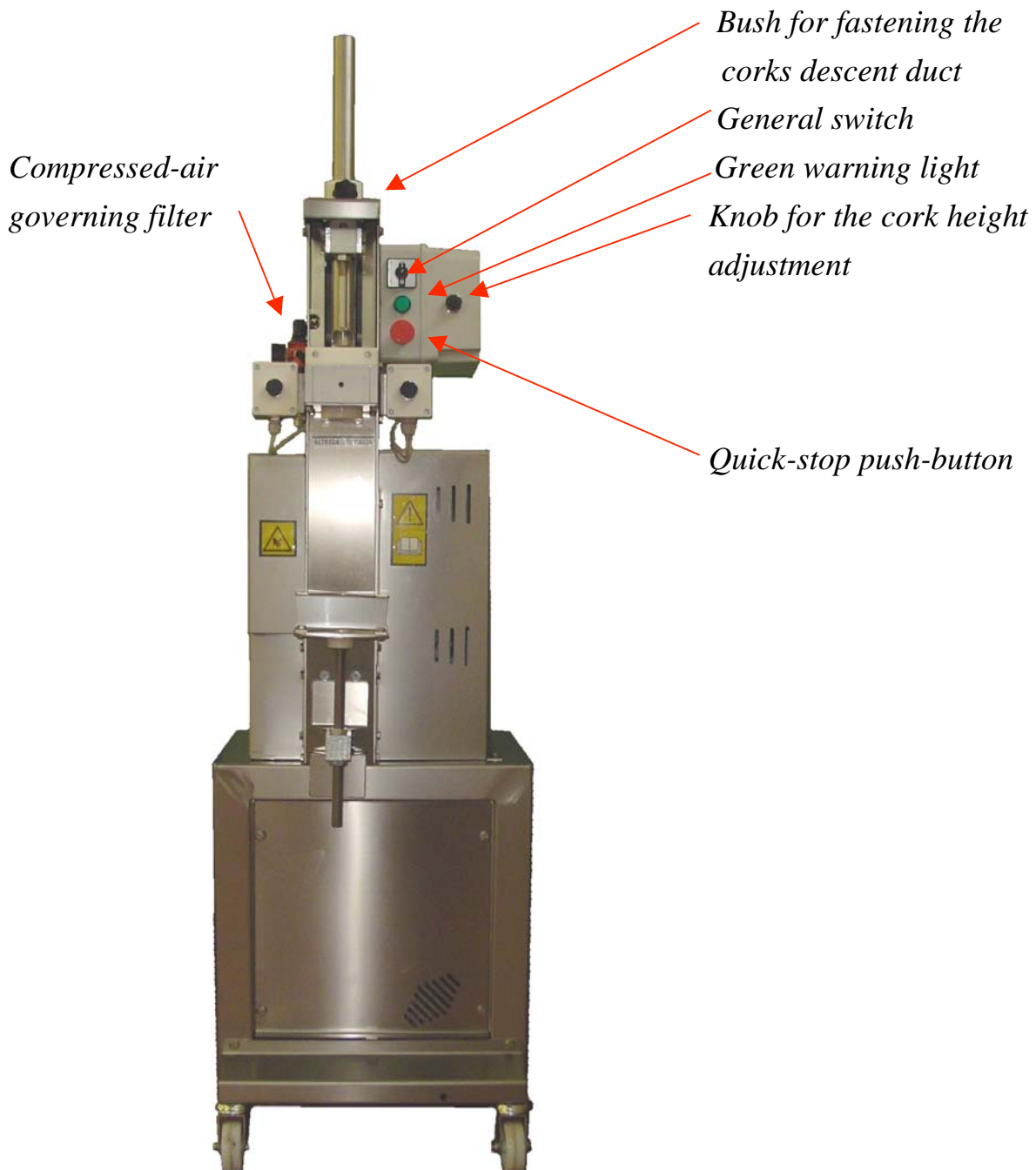
### **ATTENTION**

The P55 corking machine is supplied with the feeding cable without the end plug. Depending on the three-phase plug system that you have in your working room, you will have to assemble the respective plug.

Check that the shaft which can be seen from the hole on the right side of the machine, moves in the direction shown by the arrow near the hole; if it were not

so, reverse its direction of rotation by changing the position of one of the wires in the feeding plug assembled.

The corking machine can be started by pressing the two starting push-buttons located on the sides of it (see picture 1).



**Picture 2.**

## **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.

In order to prevent any accident, the two starting push-buttons must be kept pressed and both hands must be kept in this position until the corking operation has been carried out.

If one wants to increase or decrease the part of cork which is left out of the bottle, one has to turn the black knob located in the electric box (see picture 2, knob for the cork height adjustment).

By turning this knob clockwise, higher values in the 0 – 10 graduated scale are reached and the part of cork left out will decrease. In case one turns the knob until a value near 10 is reached, the cork will be inserted flat (close to the bottle neck).

If one starts from a previously set value which is different from 0, the adjustment will be less divided, that is that no change in the cork position could correspond to a little turning of the knob. When turning the knob more, the change in the cork position will be of about 3 – 4 mm.

To make also possible lower changes, one has to bring the knob back to position 0 and then go back to a position near the previous one.

For instance, if the indicator is on 2, to reduce a little the part of cork out of the bottle, bring the indicator back to 0 and then go to a position a little higher than 2. By this contrivance, once the arrangement wanted is reached, it is prevented that a little unintentional movement makes any changes.

## **5. FAULTS AND REMEDIES CHECK LIST**

When the machine is in the operating condition, the green warning light must be on (see picture 2). If it were not so, first of all check that the block of the

transparent plastic safety guard activates the respective sensor in the right way (see picture 1). Moreover, once the quick stop push-button has been pushed, it stays pushed; then, it has to be turned clockwise to make the machine run again. In case the machine doesn't start, it could have been pushed unintentionally; so, try to turn it and restart the corking machine.

When one removes the transparent plastic safety guard, the green warning light turns off, the cork pushing pin stops immediately where it is and the bottle-platform goes to its lowest position. To make the machine go back to its starting position, push both the starting push-buttons.

Compressed-air is used for starting the bottle-platform. In case when pushing the starting push-buttons only the cork pushing pin sets in motion, check that in the manometer of the governing filter located on the machine left side there is a pressure value higher than 0.

If it were not so, check the pipe and the compressed-air feeding joint outside the machine.

## **IMPORTANT**

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

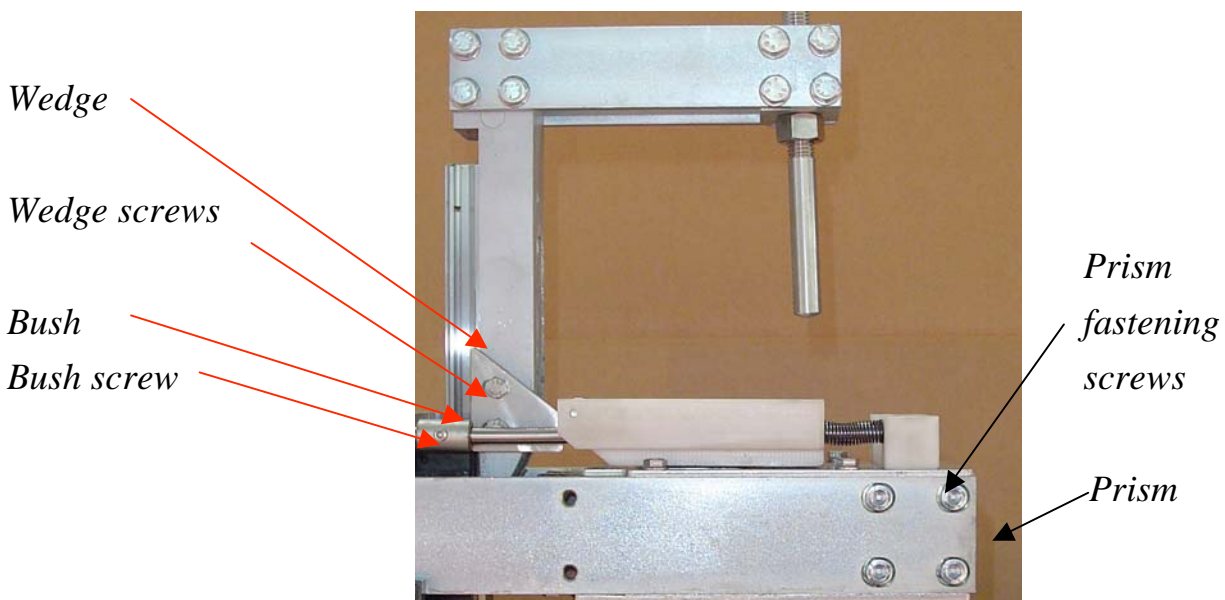
In case the cork pushing pin is not in the highest position of its stroke after corking, take off the left safety plate (it is meant left facing the machine). Inside there is a cam which is the end of stroke element, that is integral with the machine main shaft and activates a sensor that makes the end of the corking cycle. Loosen the cam grain and try to turn it; by turning it clockwise, one anticipates the end of the corking cycle (that is, cork pushing pin which goes to its highest point and tends to go down); by turning it counterclockwise one puts off the end of the cycle (that is, cork pushing pin which does not reach its highest point). Before starting work, the plate must be screwed again.

If the corks dragger does not pick the corks properly (see picture 1), both the starting and final positions of the stroke of this element must be adjusted.

Especially, in case the corks do not go down from the vertical duct right inside the hole of the corks dragger, move the special bush fixed by the screw without head (see picture 3). This bush serves as a reference; so, by changing its position, the position of the corks dragger will change as well. To reach this bush, take off the back safety plate.

If the corks dragger does not centre the jaws correctly, the wedge that can be seen when taking off the back plate must be adjusted. The final position of the corks dragger can be adjusted by loosening the screws that hold it tight and moving it a little, so that the right centring of the corks as regards the jaws can be obtained.

In case the corks descent duct is not centred perfectly when facing the machine, the corks might not be on the same line as the corks dragger and they could fall more on the right or more on the left. Loosen the respective threaded fastening bush and adjust its position.



Picture 3.

The P55 corking machine is set to squeeze the corks up to a final diameter of 16 mm, right for natural corks. When using synthetic corks, it is better to set this diameter to 15,5 mm. To carry out this operation loosen the fastening screws of the jaws prism (see picture 3) and push strongly until the prism itself moves towards the machine of about 0,5 mm. These screws are screwed inside buttonholes and, then, it is possible to change the prism position. In the end screw down again the screws using some strength.

In case the machine presents some vibrations, lubricate a little the jaws inside; then let the machine do some blank strokes before starting work again to clean the excess of grease and prevent the corks from getting dirt (see picture 1). If the vibrations go on, loosen the screws of the back safety plate and lubricate all the pins and bearings inside. In case the problem persists turn to the manufacturer M.E.P.

## **CAUTION**

In the event of strong vibrations of the machine or whatever else anomalies immediately push the quick-stop push-button and contact the local dealer.

## **6. MAINTENANCE**

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

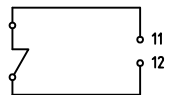
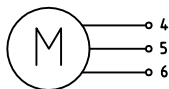
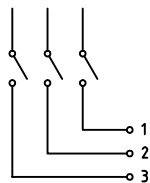
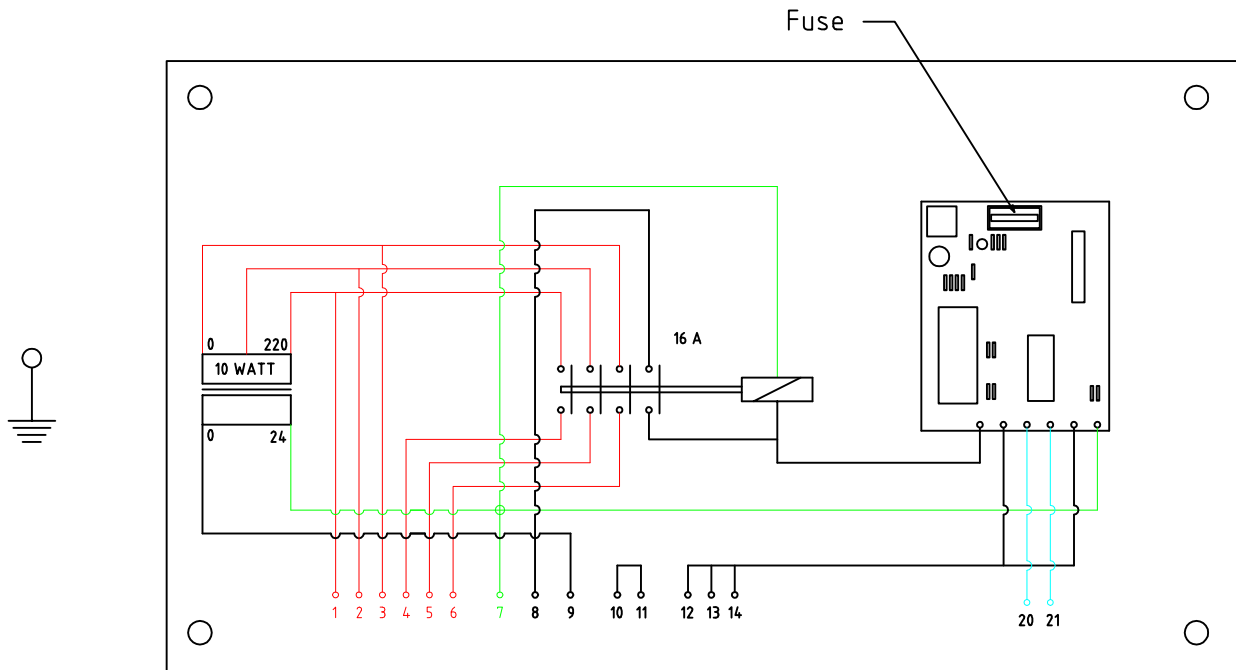
- take off the back plate and lubricate using grease the bearings, the linear slides and the pins inside the machine;
- clean the jaws from any cork dust;
- lubricate just a little the inside of the jaws using food grease and remove the excess of grease before starting work again.

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

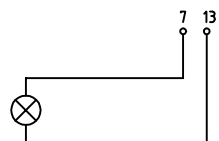
- carefully clean the machine and the jaws;
- store the machine in a dry place and cover it up with a cloth or a nylon film in order to prevent the dust from crusting over the corking machine.



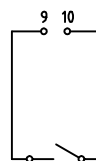
# Electric system



Quick-stop push-button



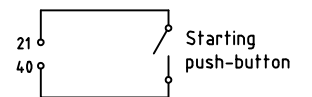
Green warning light



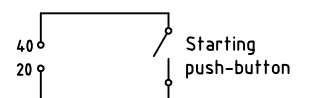
Jaws sensor



End-of-stroke sensor



Starting push-button



Starting push-button