

# MEP Filling Machine

## Addendum: Setup and Maintenance

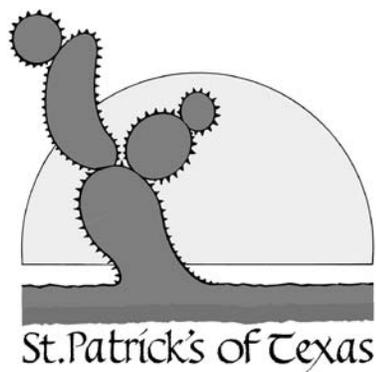
- Read this addendum and the MEP manual carefully before operating the filler.
- One person should be assigned to maintain the filler. Only this primary operator should make adjustments. This primary operator should train additional operators. However, adjustments should be made by, or under the careful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

### Setup of the Filling Machine

The filler has been setup and tested at St. Patrick's of Texas prior to delivery. The electronic fill level has been tested.

Read the manual carefully but here is a quick summary and overview.

1. The fill nozzles are spring-loaded valves. Push the bottle onto the nozzle firmly to open the valve and begin filling. Filling will shut off automatically when the preset fill level is reached.
2. The bottles rest on an adjustable tray. This tray is moved to accommodate bottles from 7" to 20" height.
3. Fill level: Loosen the allen screw on the nozzle bushing and raise or lower the bushing to adjust the fill level. **Do not overtighten the allen screw.** It is simply snugged up to hold the bushing in position.
4. Set regulator at 15-25 psi. (sparge for ~2 seconds)
5. See figure 1. Adjust microswitch to approximate angle shown in photo. [Units are shipped with microswitch vertical for safer transport.]
6. Tip on setup : Ignore the tray and Adjust Fill level first. Then position tray at HIGHEST possible position.



This manual and parts are available online.

[www.StPats.com](http://www.StPats.com)  
[stpats@stpats.com](mailto:stpats@stpats.com)



Figure 1.

## Periodic Maintenance

1. Keep filler clean and dry. Do not store in humid or wet area.
2. Nozzles should be lubricated routinely. Food grade silicone spray is fine for daily use---simply spray on moving parts.
3. If nozzles are disassembled for cleaning, use a heavy food grade grease before reassembling.
4. Drain tank well after use. Do not use corrosive chemicals.
5. Drain pumphead after use. Do not use corrosive chemicals.

## DO NOT

1. DO NOT use OZONE to clean a filler. 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 filling machine. 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.

**Sensitivity of Electronic level control.** This is located inside electrical box.

Sensitivity=2.5 kOhm, Mode=UP, Delay=Off

This is least sensitive setting and is good for wine. Products that have distilled water (some vodkas for example), may need increased sensitivity. Just try the unit first---if pump is not turning on/off as it should---increase the sensitivity.

See Fig. 2. Do NOT overtighten the small bolt that holds nozzle to the tee. The nozzle must be able to rotate freely. Overtightening of this bolt will result in the nozzle tube being snapped off at the tee.

See Fig. 2. Do NOT overtighten the set screw on the ring that holds the rubber cone.

See Fig. 3. Clean and lubricate solenoid valve annually (or if it will not open). See Fig. 1 and Fig. 3. Remove black electrical component. Then remove stainless stem. Clean rubber tip, inside housing, and use light lubricant and reassemble.

Note: If solenoid valve 'sputters', reduce the pressure. 25 psi is a typical maximum pressure that the valve can operate, but precise max pressure this depends on line voltage, cleanliness and lubrication of the valve, ...



Fig. 3. Cleaning solenoid valve.



Figure 2. Do NOT overtighten these bolts.

## **CONDITIONS OF SALE AND WARRANTY**

1. Read carefully this operator's handbook before operating our Rv25 filling machine.
2. M.E.P. guarantees this Rv25 filling machine in case of breakages caused by faulty components or incorrect assembly.
3. The Rv25 filling machine has a 12-month guarantee. 12 month period begins on shipping date from St. Patrick's of Texas. This guarantee is valid only for the first owner of the filling machine.
4. Warranty only consists in replacing the damaged parts and it does include neither refunds for losses caused by the shutdown of the machine nor any cost of labour or any transport cost to send the filling machine to a repair shop.
5. Any repair or modification made to the machine by unauthorized personnel will make the warranty void.
6. We cannot be held responsible for damages due to incorrect use of the filling machine, or failure to carry out maintenance and lubrication, or problems or damage incurred during transport.
7. M.E.P. reserves the right to introduce changes without previous notice to the Rv25 filling machine; however, the supply of spare parts of the previous models will be guaranteed.

## **INDEX**

1 ..... Description of the Rv25 filling machine

2 ..... Technical details

3 ..... Operating directions

4 ..... Maintenance

5 ..... Faults and remedies check list

## 1. DESCRIPTION OF THE Rv25 FILLING MACHINE

Our Rv25 filling machine can be used to bottle wine or other food products as long as they are not too thick.

This filling machine is almost entirely made of stainless steel; there are some parts made of synthetic materials (such as delrin and silicone rubber) which do not react either with the air or food products.

### Safety symbols:



General danger



Caution: refer to the operator's handbook



Caution: 230 Volt tension (or 110 Volt)

## **2. TECHNICAL DETAILS**

This four-spout filling machine operates on falling principle; the four spouts have a conic seal and a 14 mm diameter.

This filling machine can be used with bottles up to 400 mm high, made of glass or undeformable material (deformable plastic bottles can't be used).

The inside diameter of the neck of the bottle must be between 15 and 28 mm.

### **Rv25 filling machine equipped with wheeled support**

height: 1550 mm

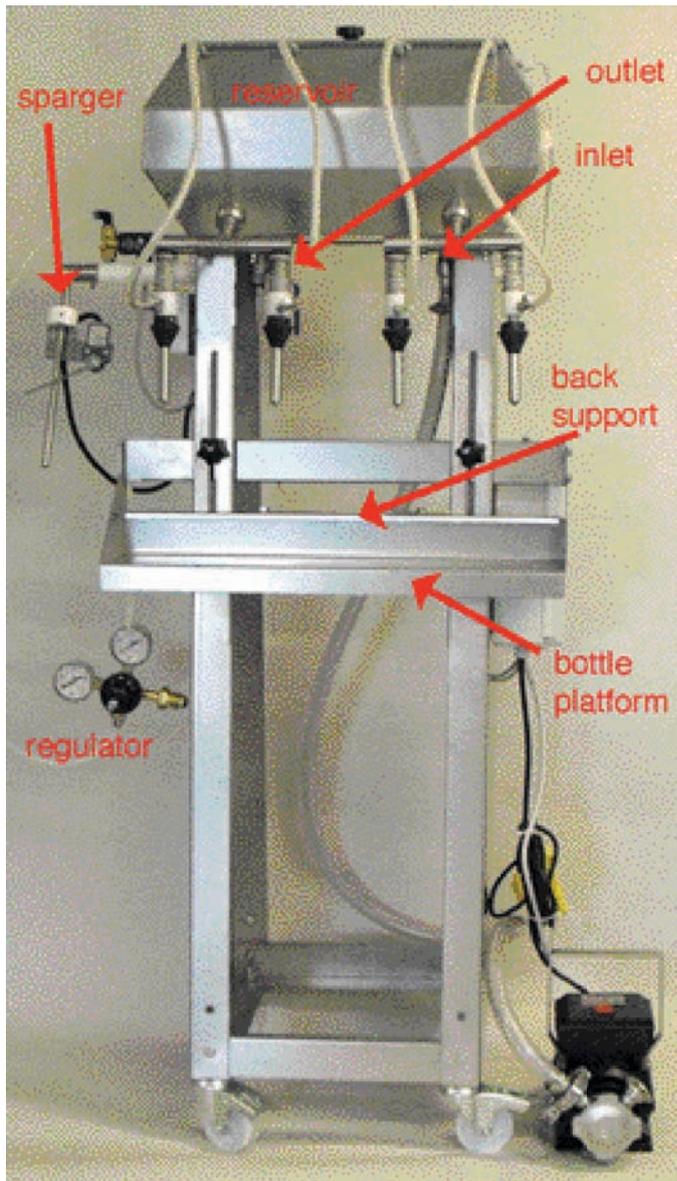
width: 600 mm

length: 550 mm

weight: 40 kg

### 3. OPERATING DIRECTIONS

Positioning. Place the Rv25 filling 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 and put on the brakes to the two front wheels.



Picture 1.

First attach the hose to the hose barb of the inlet- (see picture 1) and secure it with a clamp. Check that the outlet valve is closed (see picture 1).

The reservoir on top of the Rv25 filling machine is filled by a pump (see picture 1).



Picture 2.

Now turn a spout, put a bottle onto the bottle-platform of the filling machine (the right direction is that of the arrow shown in picture 3; do not turn the spouts in the other another direction because their proper functioning could be jeopardized). By pushing on the bottle towards the machine, the spring is compressed and the spout opens. At this point turn the spout and the bottle together, so that the bottle is put onto the bottle-platform (see picture 1, bottle-platform).

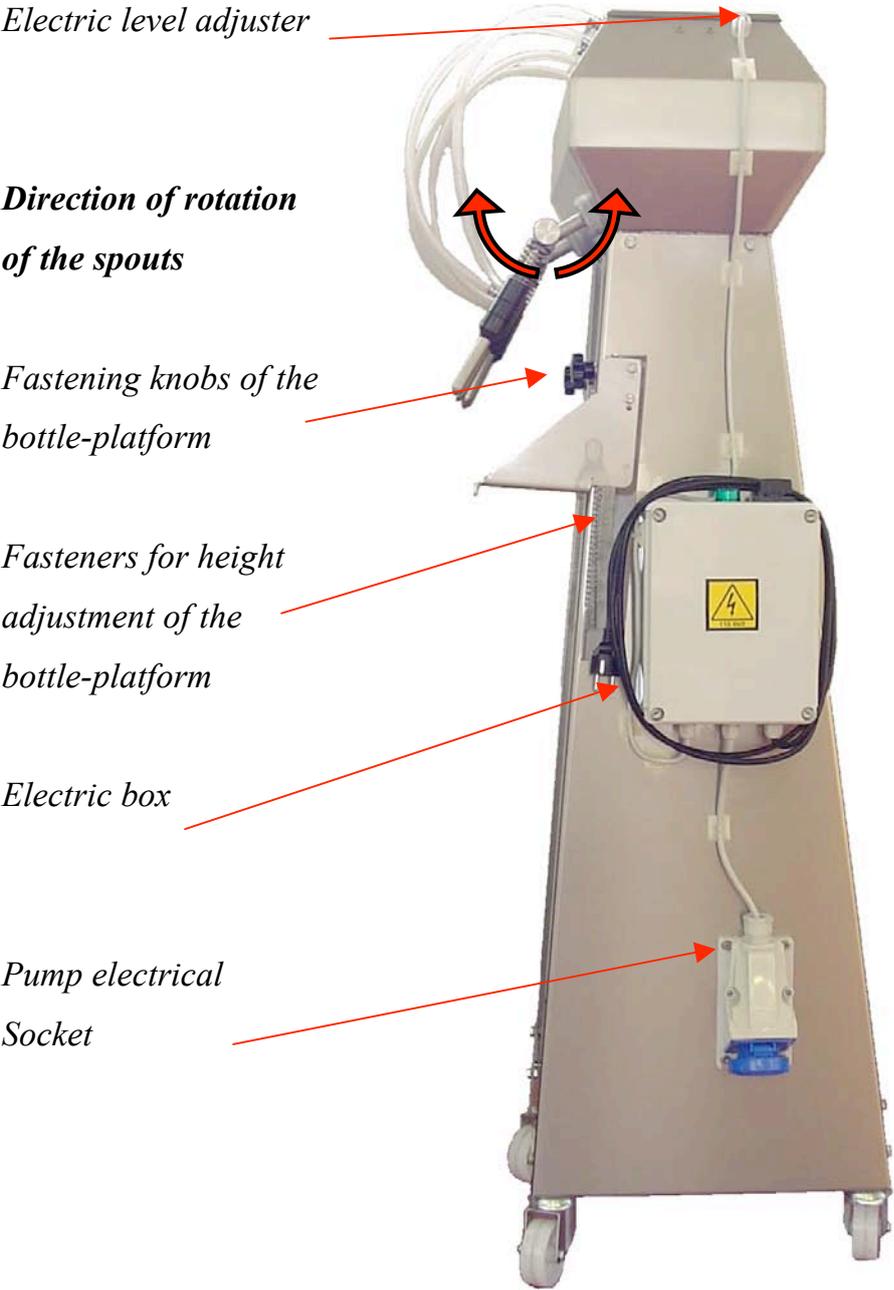
In case the product flows slowly into the bottle, check that the mobile part of the spout is raised enough so that it is about 10 mm above the holes for product inlet (see picture 2).

If it is not, the position of the bottle-platform must be changed. To do that, loosen the two fastening knobs of the bottle-platform by unscrewing them almost entirely (see picture 3, fastening knobs of the bottle-platform) and turn the bottle-platform so as to disconnect the fastening rod (see picture 1); then relocate it higher. Be careful and keep the bottle-platform in the horizontal position. Do not set the bottle-platform too high because the bottle must rest on the bottle platform while compressing the upper spring of the spout.

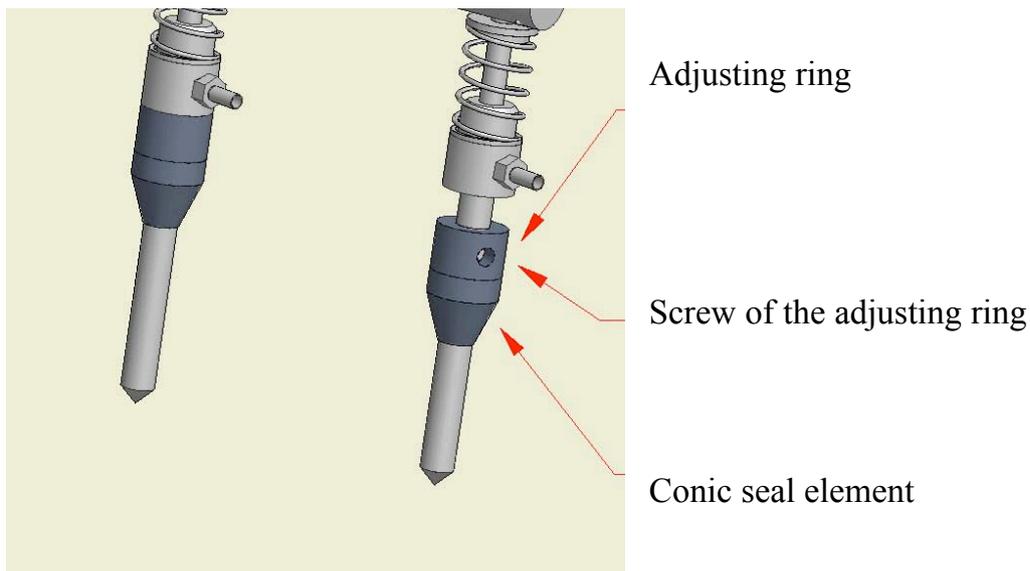
The machine has a back support to which the bottles on the bottle-platform must be leant against. The position of this support can be adjusted by unscrewing the two bolts.

To adjust the level of product inside the bottles, you must unthread the set screw of the adjusting rings of the spouts using a hexagonal (allen) wrench and lower both the ring and the rubber conical seal (see picture 4). Once you have obtained the level wanted, make the same adjustment to all the spouts and tighten the screws, **but be careful not to tighten them too much.**

In case the level must be adjusted a good deal, it might be necessary to lower the bottle-platform.



Picture 3.



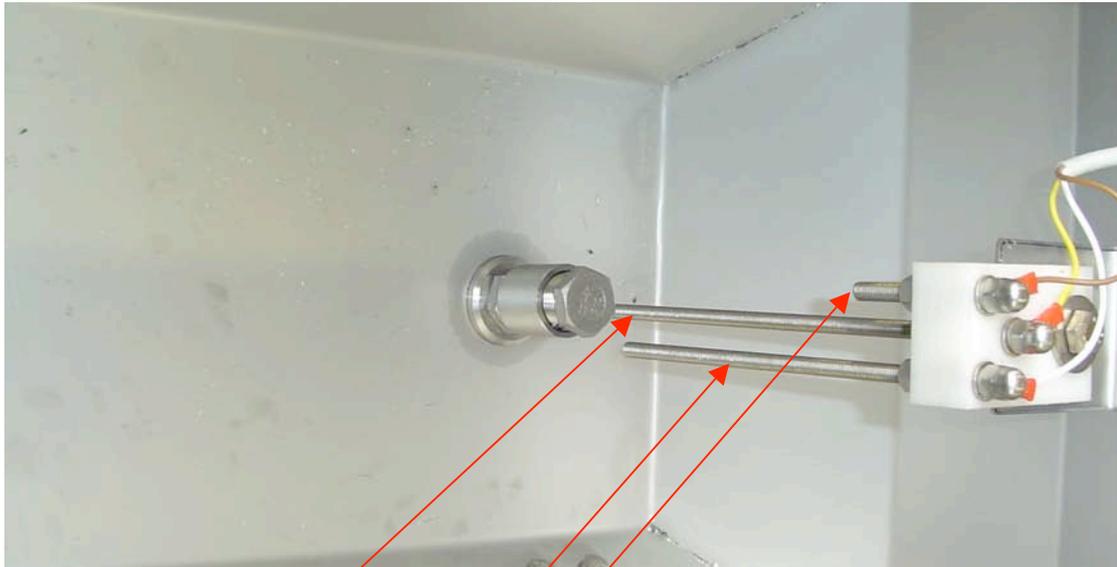
Picture 4.

The Rv25 filling machine is fitted up with a electrical level adjustment system, which has a electrical socket for an external pump (see picture 3). When the maximum level is reached it disconnects the pump; at the minimum product level it connects the pump again.

The level is taken by stainless steel threaded rods which detect the product level. Among the three rods, the longest one is a necessary reference for the data to be processed; the one which is a little shorter restarts the pump when the product falls below it: whereas the higher rod disconnects the pump when the product touches it

The electric float needs the filling machine to be connected to a electrical outlet. Then the general switch can be turned on, and the green warning light of the electric board will turn on. Now the electric level adjustment system is operating.

When the pump is disconnected a check valve prevents the product from draining from the reservoir of the filling machine.



*Reference rod*

*Rod for minimum level*

*Rod for maximum level*

*(View of the inside of the upper reservoir)*

**Picture 5.**

If using the Jet05 centrifugal pump, the pumphead must be filled before starting. This is not necessary with the Euro-20 pump.

**IMPORTANT**

Before using the filling machine for the first time or after a long period between uses, it is advisable to fill some bottles with tepid water.

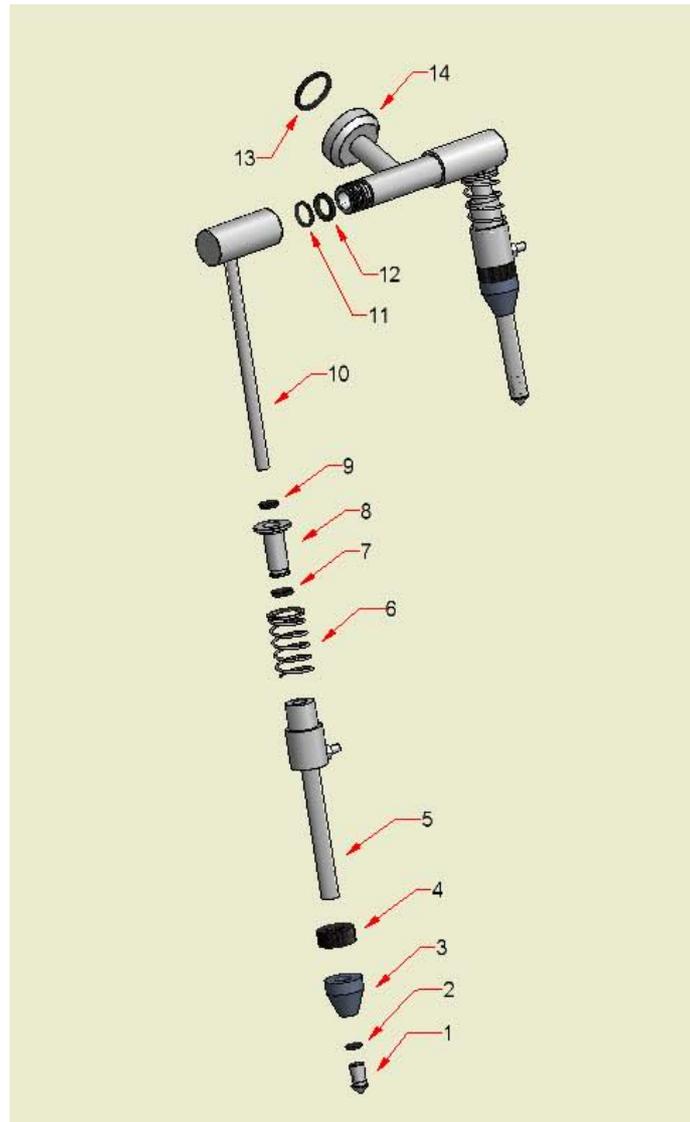
## **4. MAINTENANCE**

At the end of work, open the outlet valve and empty the reservoir.

Then it is advisable to fill some bottles with tepid water to remove the residual products and guarantee a longer life of the gaskets.

For more accurate maintenance, disassemble each spout by unscrewing the lower seal (see element no. 1, picture 6); now, their inner parts can be cleaned. Use heavy weight food grade grease and reassemble.

Flush unit with clean water at the end of each use. Remove pump hoses and drain.



Picture 8.

POSITION	DESCRIPTION	REFERENCE
1	Lower seal element	Rmp0507-1
2	2037 O-ring	Tap0423
3	Conical seal element	Rmp0105
4	Rubber cone adjusting ring	Rmp0113
5	Short sliding pipe	Rmp0529
6	Closing spring of the injector	Rmp0116

7	115 O-ring	Tap0427
8	Fixed seal element	Rmp0528-1
9	112 O-ring	Tap0428
10	Main duct	Tap0502
11	2068 O-ring	Tap0424
12	3068 O-ring	Tap0429
13	3131 O-ring	Tap0425
14	Double seals horizontal shaft	Rmp1060

## ELECTRIC SYSTEM

