

CATALOGUE

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Part 1. General idea for machines

General procedure:

Step 1. Please make sure 0.4-0.8 mpa air pressure.

Step 2. Enough plugs and caps on tracks. If not, feed them by manual control mode.

Step 3. Adjust filling volume and speed for new type of e-liquid with measuring cup or scale to ensure smooth filling.

Step 4. Turn on bottle unscramble and label machine, make sure printer pre-heated.

Step 5. Start the full automatic mode.

Thanks for your attention to the following tips for filling line:

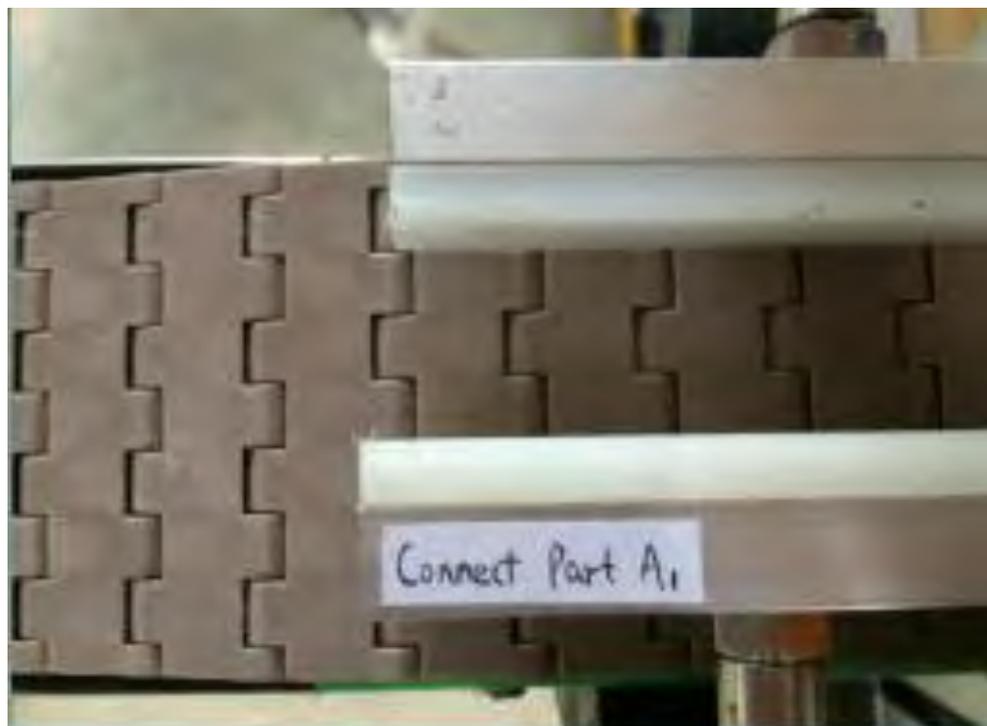
1. Make sure all screws and nuts above electricity box are tightened regularly.
2. Make sure the chain inside electricity box is tight, the bolts of slipping system is never too tight or too loose.
3. Grease and lube oil shall be added to drive system of machines regularly. Only lube oil needed for capping part, no need for filling and plugging part.
4. You need to master **all sensors' function**.
Sensor number may be changed for real use.
 - 4.1. Sensor 1: if bottles are full on conveyer, the bottle unscramble will stop work.
 - 4.2. Sensor 2: if no on bottles on conveyer before filling, the whole filling machine will stop.
 - 4.3. Sensor 3 and 4: if no on bottles on table before filling, it will not fill.
 - 4.4. Sensor 5 and 6: if no plugs, the capping machine will not work.
 - 4.5. Sensor 7: if bottles are full on conveyer, the whole filling machine will stop work.
 - 4.6. Sensor 8: to detect bottles and ensure the bottles will be separated and not fall down.

4. 7. Sensor 9: to detect bottles before labeling and paste label correctly, no bottle, no label.
4. 8. Sensor 10: to measure the label length.
5. The principle and application of slipping system.
With elasticity to protect bottles and caps from damages.
6. The principle and application of filling system.
Keep the filling nozzles accurately above bottles to ensure perfect filling effect, how to apply new filling volume and filling speed every time you need to change different levels and different flavors.
7. The principle and application of plugging system.
Make sure no gas leakage, keep the plugs' track smooth, make the plugging head in right position for proper plugging.
8. The principle and application of capping system.
Make sure no gas leakage, keep the caps' track smooth, make the capping head in right position for proper capping.
9. The principle and application of magnetic slip capping system.
If there is gas leakage, change the three kinds of 'O' rubber rings inside.
10. The principle and application of coding system.
Pre-heat it before print to ensure it is hot.
11. Please clean machine every day after using.

Part 2. Machine connection

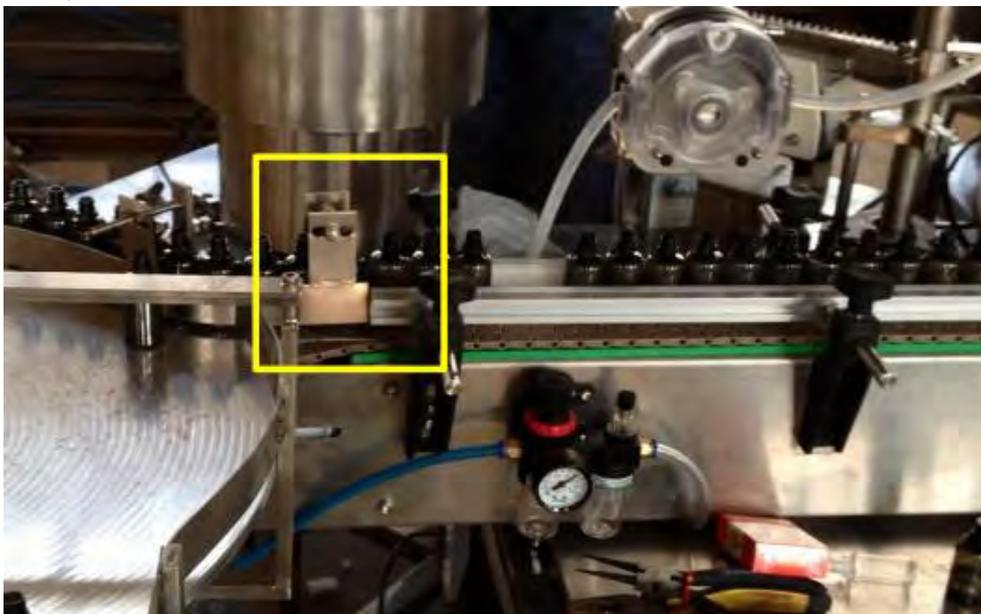
1. From bottle feeding table --- filling machine

Please connect with where I marked "Connect part A1":



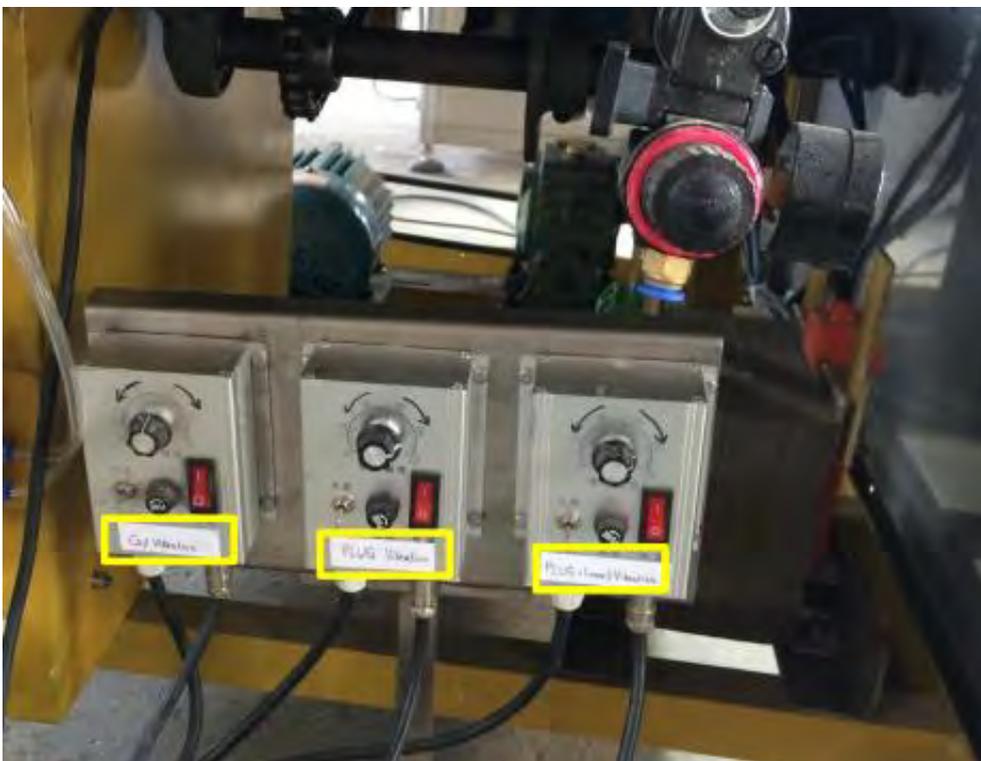
2. Bottle feeding --- filling machine

As this picture:



3. Filling machine with vibration tray (wire)

Vibration control wire connect left side of machine as marked:

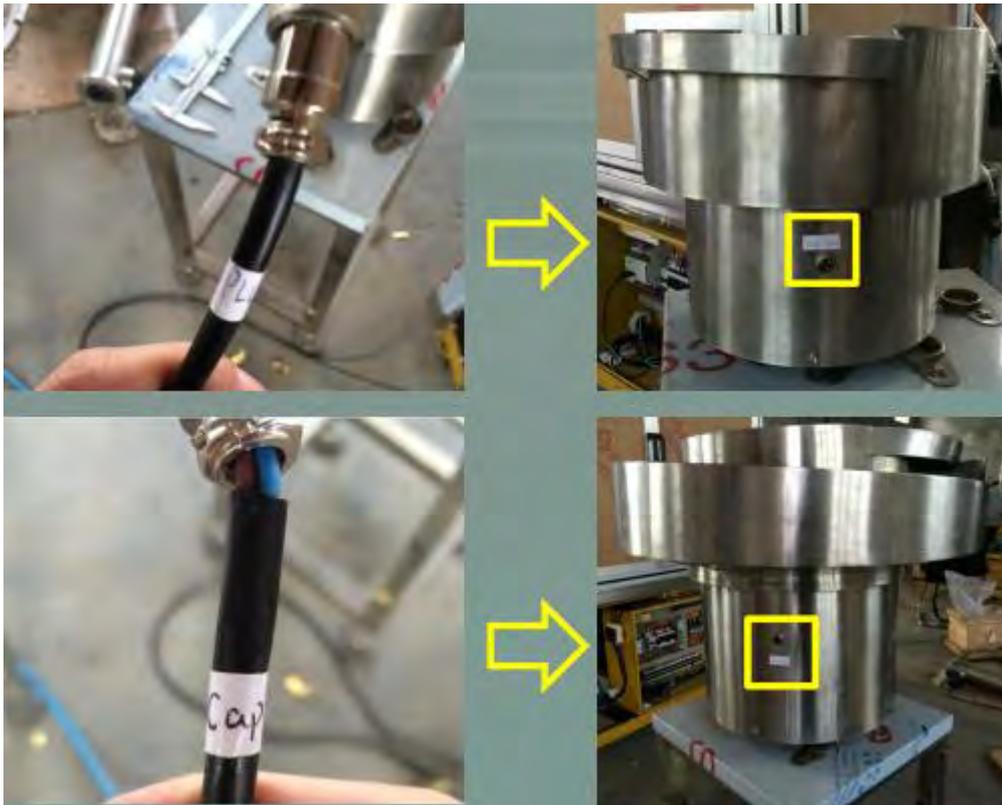


- Cap vibration usage: sorting caps.
- Plug vibration usage: sorting plugs.

- Plug linear Vibration usage: tidying plugs make easier to push in corking position.
- Cap vibration, Plug vibration.
- Plug linear Vibration (from left to right).

4. Filling machine with vibration tray (wire)

Plug/Cap wire with vibration tray, plug/cap in the tray:



- The plug linear wire is connected with machine

5. Air valve position and set

At the left side of machine the beginning conveyor will be air valve place, the air goes into left hole:



6. Filling machine with vibration tray (machine)

Vibration tray connected:



7. Filling machine with vibration tray (machine)

Plug vibration connect:



- Match the B and B1 as accurate as you can.
- Part B is with plug tray, part B1 is with linear vibration in the machine (connected).

8. Filling machine with vibration tray (machine)

Cap vibration connect:



- Match the C and C1 as accurate as you can.
- Part C is with cap tray, Part C1 is on the machine (at the cap corking part).
- Tips: part C is 0.5mm higher than part C1 will be easy for loading.

9. Filling machine with label machine (right side)

Connect parts for filling machine and label machine:



10. Filling machine with label machine (right side)

Connect parts for filling machine and label machine:

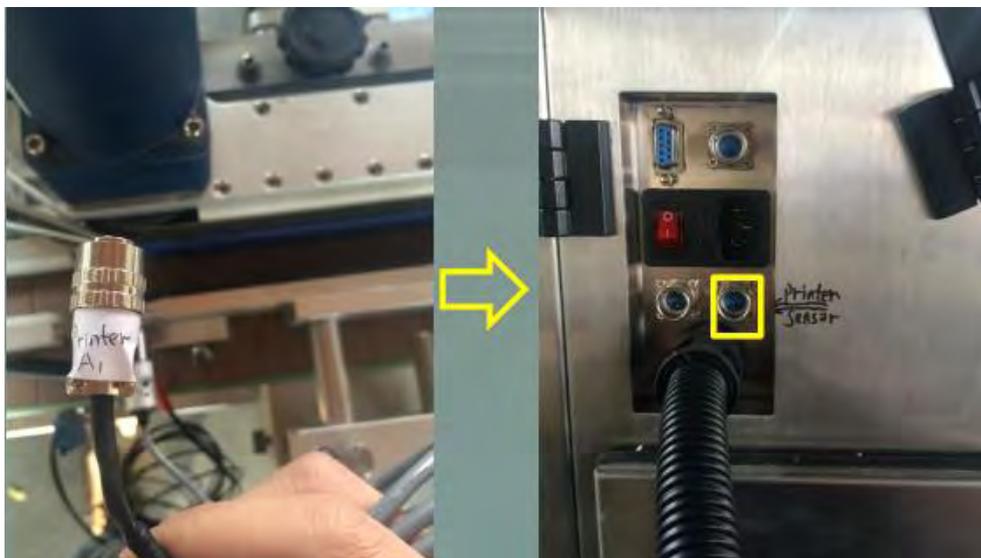




- Please connect the three parts.

11. Labeling machine and printer sensor

Printer sensor wire goes into right picture position:



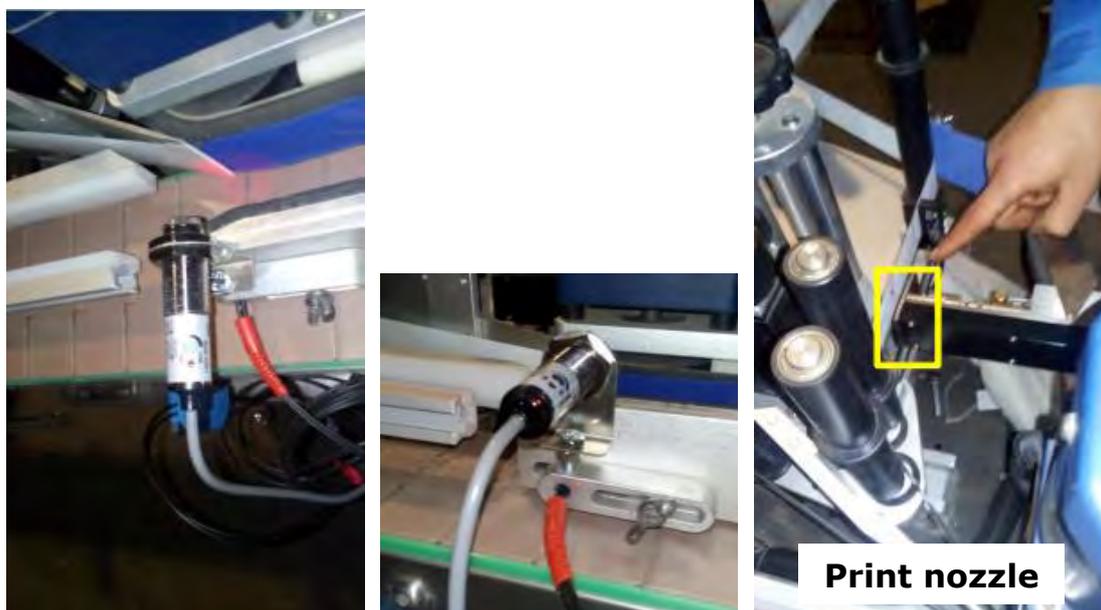
12. Ink printer set up (1)

Printer position and print nozzle point to label:



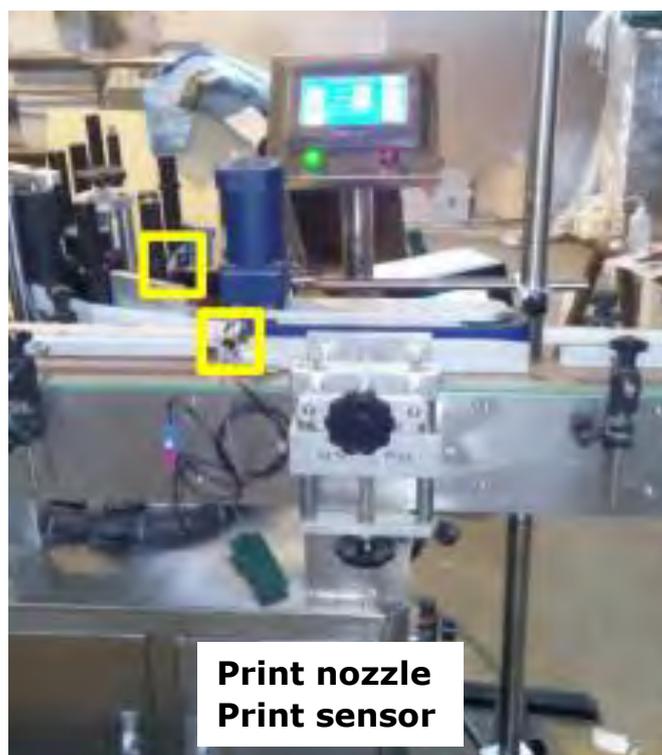
13. Ink printer set up (2)

Printer sensor position above label sensor:



14. Ink printer set up/ labeling machine with collection table

Finished picture:



Part 3. Wire connection/Air connection

1. **Wire connect, comes out from Filling machine bottom**
As right side picture:



2. Air supply input: 1.3m³/h 0.4-0.8Mpa

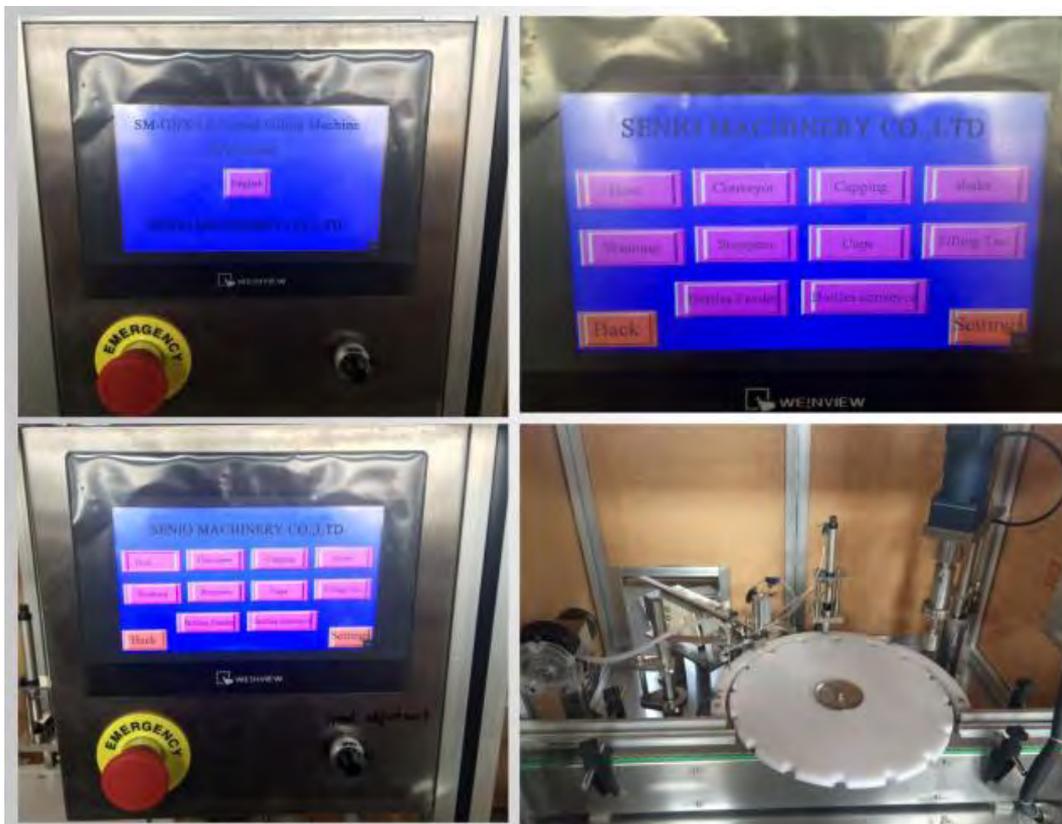


Part 4. Start machine/machine introduction

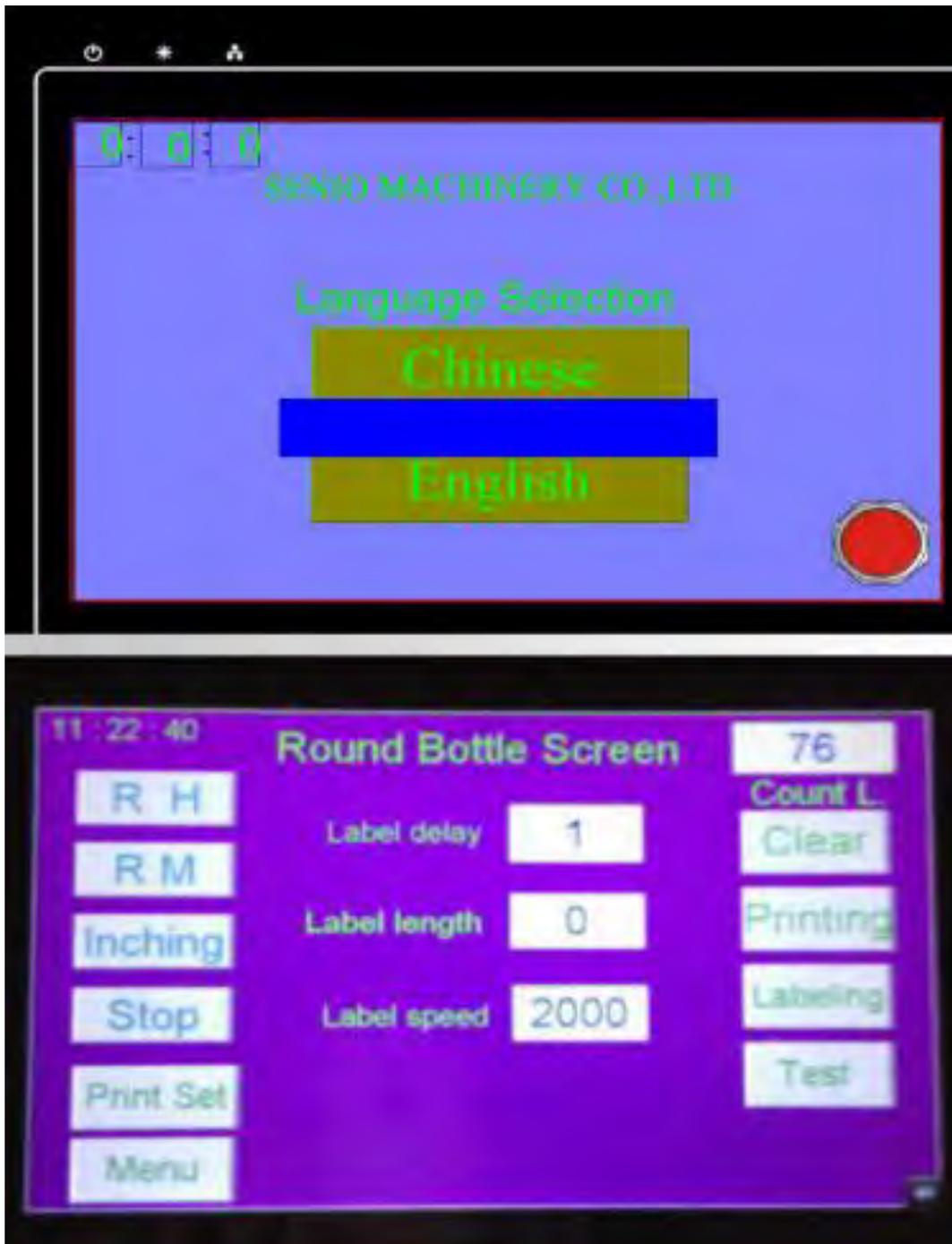
1. Open the power, adjust the speed:



a. Filling machine



b. Labeling machine



Electrical Cabinet:

1. PLC
2. Fuse
3. Breaker
4. Power switch
5. Pump drive
6. Relays
7. Transducer
8. Wiring panel



A. Different relays (from left to right):

- a) Main machine relay
- b) Conveyor relay
- c) Capping relay
- d) Vibration relay



B. Power control:

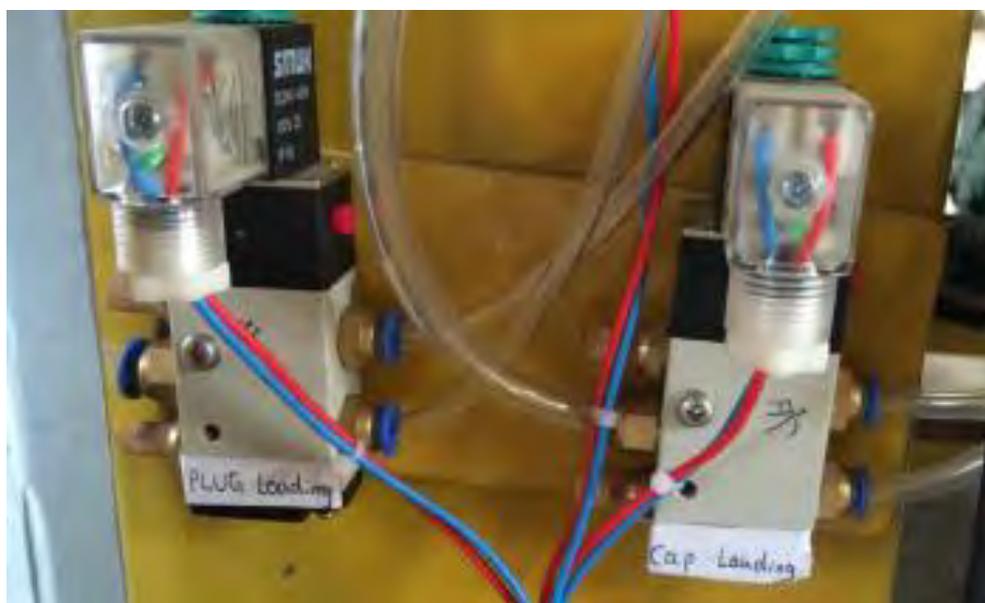
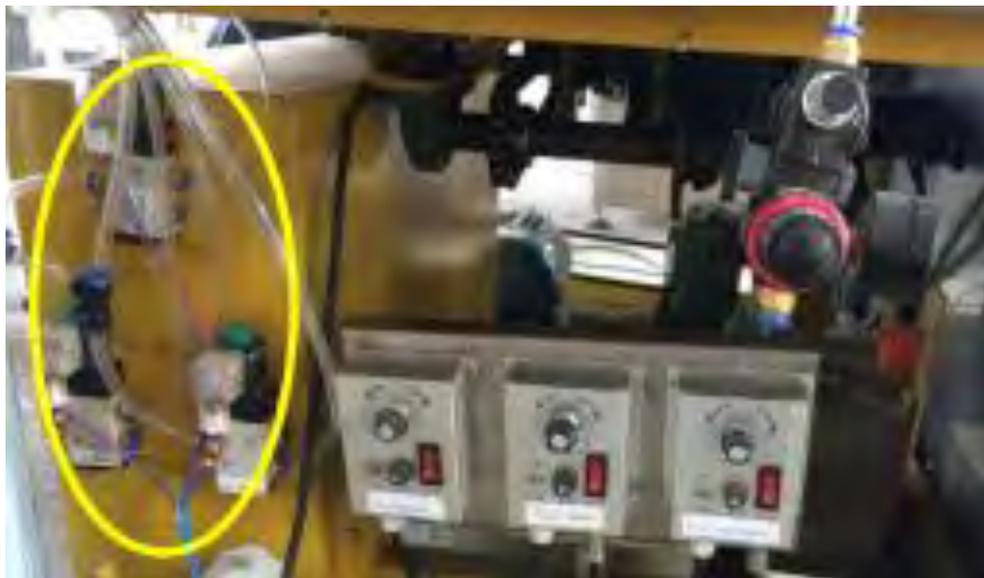
- a) Left one:
total power
- b) Right one:
vibration trays

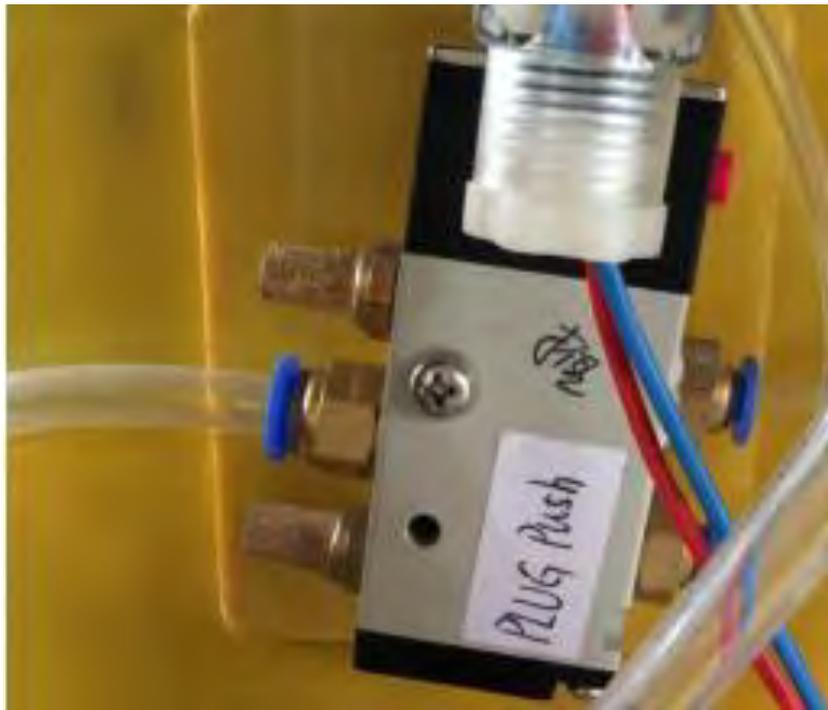


Plug loading: plug corking

Cap loading: cap corking

Plug push: move plug to corking place



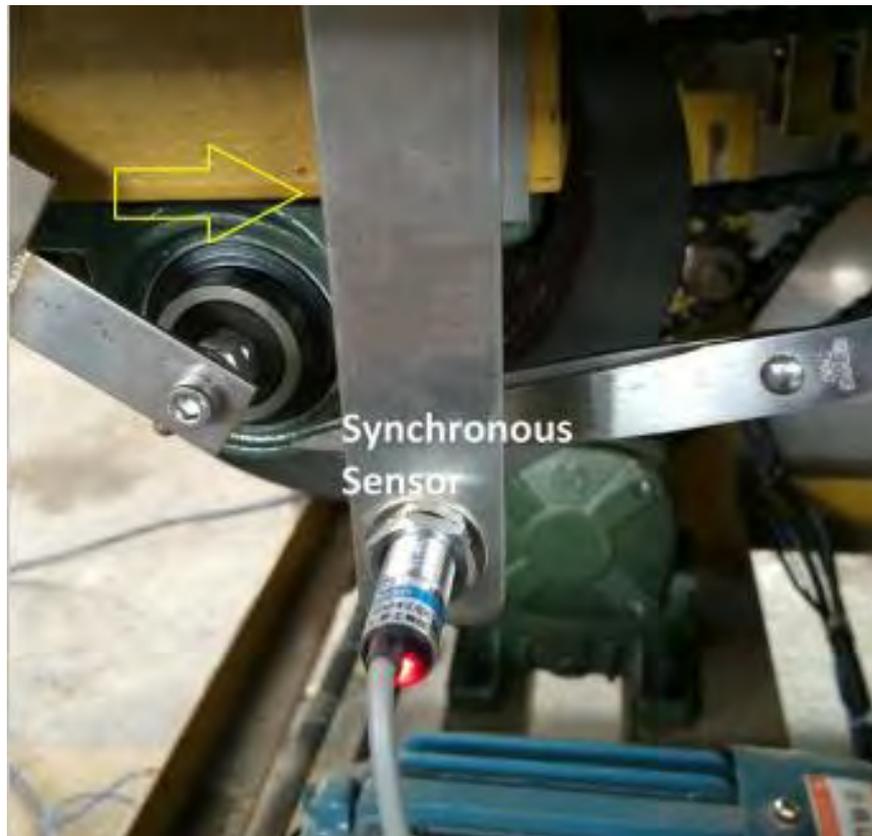


2. On the right side of machine, the back corner:

- a. Optical sense for filling.
- b. Optical sense for plug corking.
- c. Optical sense for cap corking.



3. Sensor is above the motor:



4. Capping wheel:



5. **As picture Switch power on/ off, speed adjust manual.**
You can also do on the touch screen:



6. **Power switch at right side of labeling machine:**



7. Power switch of ink printer:

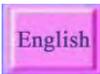


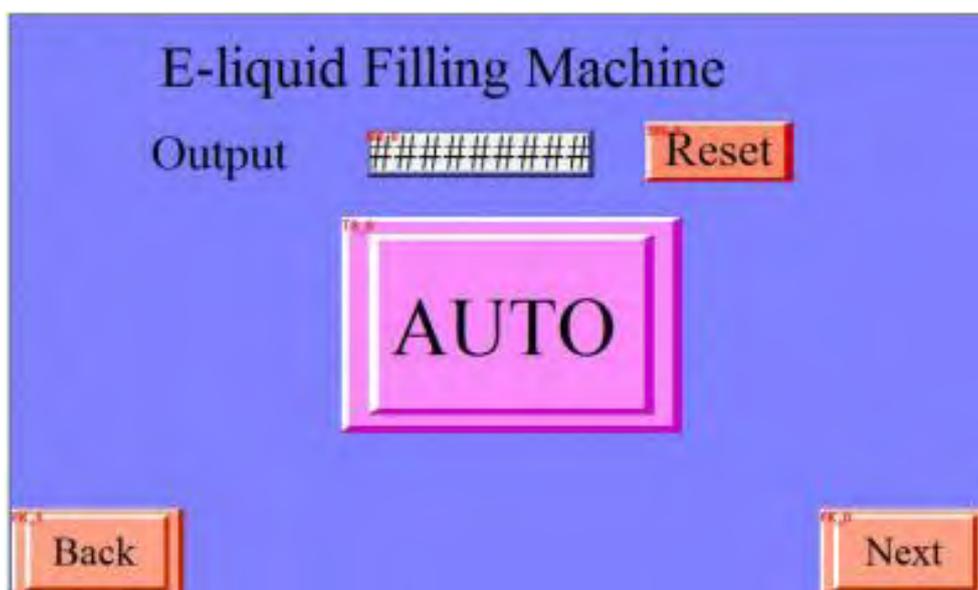
Part 5. Machine adjustment

Adjustment steps

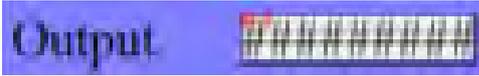
When start the machine you will see:



Please select a language, press , then into next page:



Press , it will start.

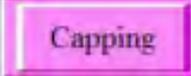
Press , the  will become "0".

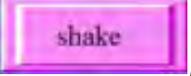
Press , you will enter next page:

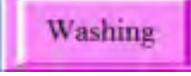


Press , the turntable will run.

Press , the conveyor will start.

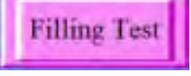
Press , the capping motor will run.

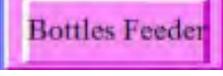
Press , vibrate plug / cap tray and plug linear vibrate.

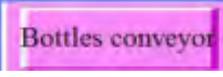
Press , the Peristaltic pump, will run all the time.

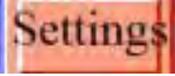
Press , the plug corking one piece plug at one time.

Press , the cap corking one piece cap at one time.

Press , the Peristaltic pump will filling one time.

Press , unscramble bottle machine will send bottles.

Press , unscramble bottle machine will convey bottles.

Press , you will enter into next page.

Need test material for below dates:

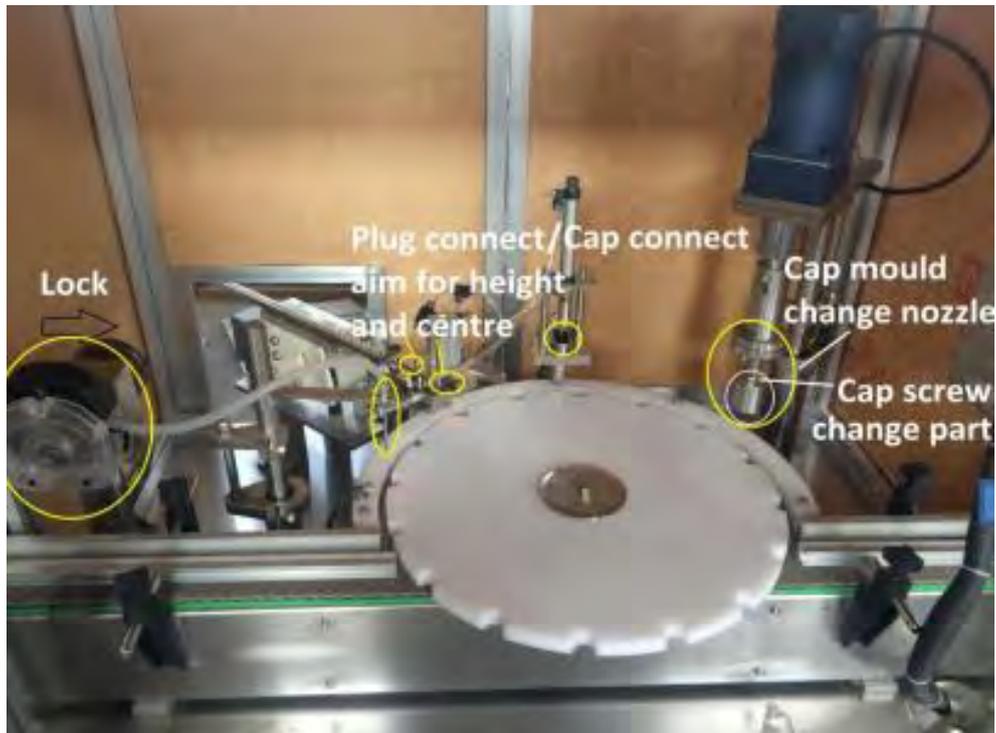


Adjustment steps

Bottle feeding width adjustment:

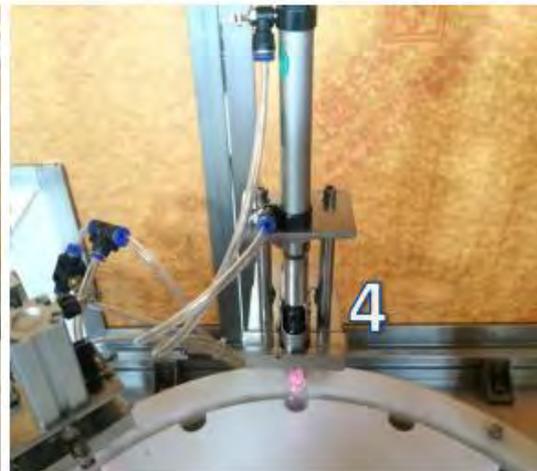
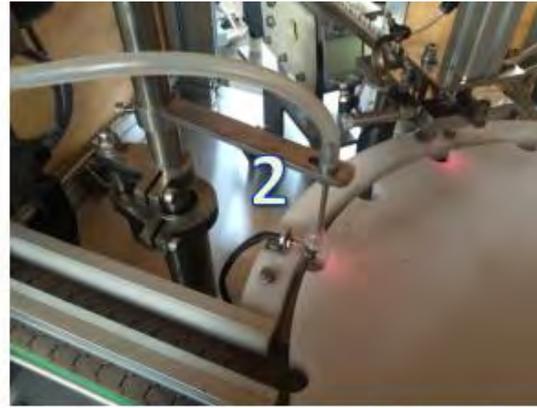


Filling capping machine:

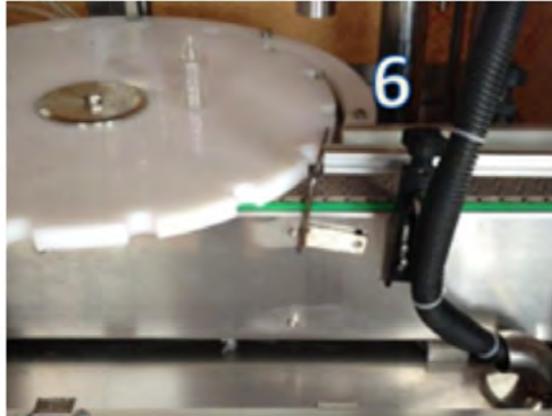


Adjustment for different bottle with same plug and cap

1. Adjust width.
2. Adjust height.
3. Height & centre.
4. Height & centre.



5. Height & centre.
6. Width of outlet.
7. Width.
8. Width & sensor position.



Video clips for adjustment

Bottle feeding machine adjust.



Filling machine spinning disk adjust.



Plug height and centre adjust.



Plug centre adjust.



Vibrate tray height adjust.



Adjustment tray change plug height and centre adjust.



Connect vibrate tray with machine part 1.



Connect vibrate tray with machine part 2.



Plug finished adjust right on the bottle centre.



Cap feeding part adjust and loading.



Cap feeding part adjust and loading 2.



Cap connect about height of vibrate tray 0.5mm higher than the part to the machine.



Cap vibration tray adjust.



Filling nozzle height adjust and conveyor entre width adjust.



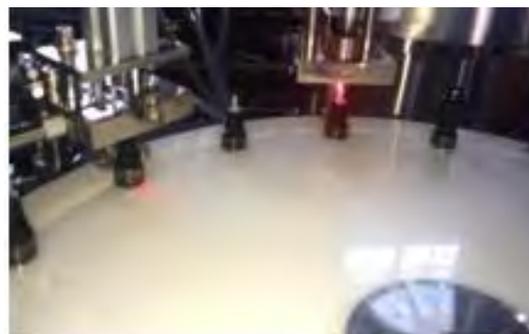
Test bottle after adjustment.



4 bottles test after adjustment.



15ml filling machine video.



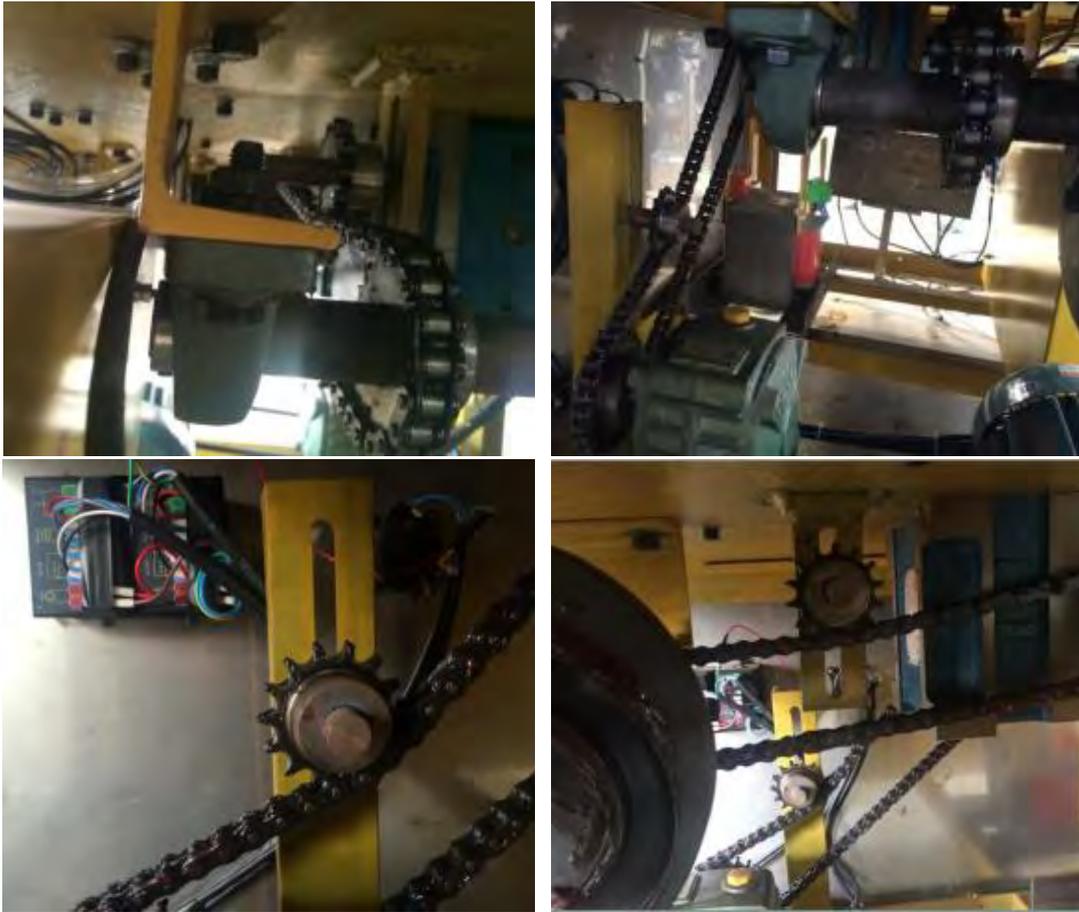
Part 6. Filling machine maintaining

Machine lubrication:

1. Maintenance once every three months.
2. Please lubricate bearing and gear transmission parts grease.
3. Two times a day (for whole day working) Lubricate the place which does reciprocating motion: Such as: reciprocating shaft.
4. lifting shaft should be added rail oil (N68), all rotating parts, the swing position (i.e. oil hole or cup.) machine oil (N68).
5. Grease the cam groove 6-12 months.



Part 6
Filling machine maintaining

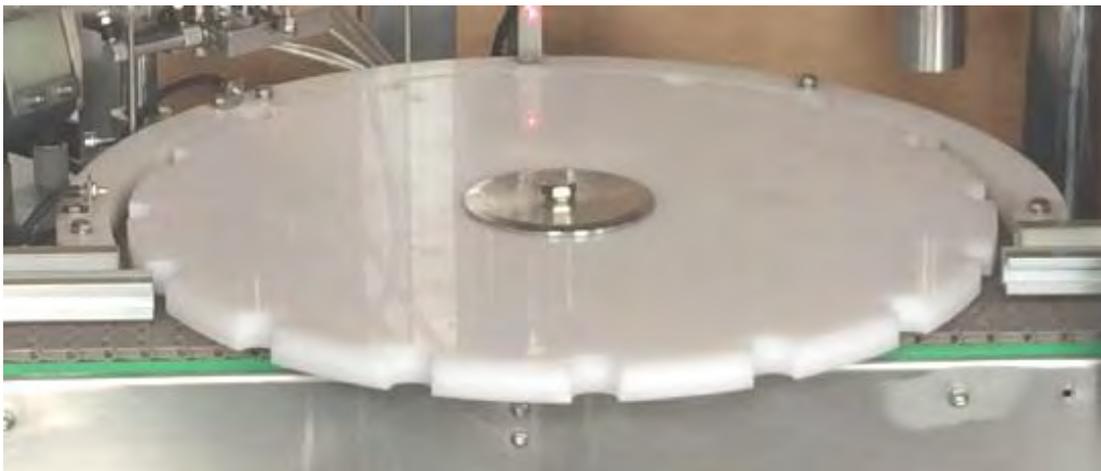


The cover is made of stainless steel, the protective cover available cotton moistened with cleaning fluid cleaning, switch control parts of the body with a dry cloth, or dip a little not conducting cleaning swab, shift or work must do the cleaning work. Each batch of filling end must be clean equipment, clean production scene.

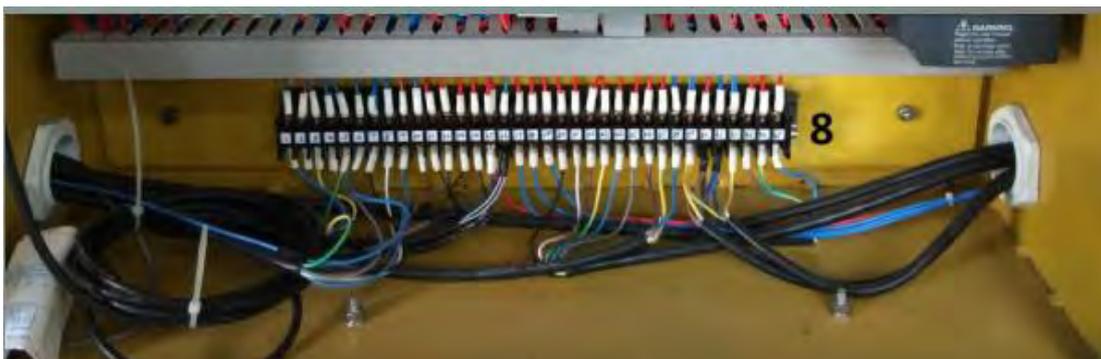


Machine clean tips:

1. Cleaning the mold, parts, clean the surface bonding equipment when not using metal tools scraping, blow, so as not to damage the parts.
2. Equipment have being stop for a while, should grease lubrication in the Transmission parts and bearing parts, and the waterproof, dustproof material cover.
3. Machine cover can not store any goods, so as not to damage the shell smooth, flat.
4. The dust inside the machine to regularly clean any corner, and check that all screws, fastening with no loosening, displacement, and tighten.
5. Regular inspection, fastening the terminal screws.



Regularly check the distribution box outlet line (already taut) is a slack condition, if too flabby prolapsed, should be firmly retighten the, lest and mechanical friction, insulation damage cortex, resulting in leakage phenomenon.



Filling soft tube cleaning:



Daily maintenance:

1. Turn on/off time, should be more than 30 seconds, otherwise easy to damage the electrical components.
2. Don't change the parameters of the servo driver and inverter, if have change, the machine maybe can not run.
3. Operating machinery, optical fiber can not be bending, if you have bending it, may cause labeling errors, the optical fiber needs to be replaced. Change of optical fiber, to ensure the optical fiber model.
4. Don't change the wire, cable, trachea interface, and protect it from damage.
5. Touch screen surface should avoid scratches, so it will not affect screen control.
6. Rubber wheel used alcohol clean, if the surface stick on label, do not use too (such as knife) to remove, so as to avoid damage.
7. Conveyor belt surface should be kept clean. If dirt is difficult to brush, use cloth to remove.
8. Labeling motor conveyor belt should be checked once a month, if found too loose, make appropriate adjustments. Adjustment of the servo motor will the fixed screw loosening, the belt can be locked tight. Attention should be paid to the belt do not hold too tight, too tight will cause the servo motor mechanical resonance noise.
9. Each part bearing also should be check regularly, in order to avoid screw loosening, influence the work.