12 Nozzles Lipstick Filling Machine

Operation Instructions

Preface

We are very grateful to your trust and care! For you to know more about the characteristics and functions of the operation, repair, maintenance and consumables, we issued this Operation Instructions to help you to operate the machine smoothly in the future work. If any words failed to express the meaning or did not read smoothly, we hope you will not stint your criticism, we will sincerely accept and improve it.

Contents

1. Safety Precautions

1) Before operating the machine, you must read to know the operation instructions and safety precautions.
2) Only the professionals who know the machine and familiarize with the risk and rule of the machine can repair it.
3) Must guarantee that no danger to all people around the machine before starting up the machine.
4) When the machine running, prohibit change or adjust the components and related units.
5) Only to repair and service the machine after shut off.
6) Prohibit operate the machine in case the operator’ s body or tools were wet.
7) Before connecting the power supply, please check the operation voltage, pressure and ground.
8) Prohibit collide the electrical equipment in the control area to prevent damage.
9) Prohibit remove the safety warning symbol from the machine.
10) Prohibit damage the safety switch on the machine or change its functions.
11) The safety door must be closed at any time.
12) The main switch must be shut off if the machine stopped running.
13) Only to operate the machine after completely knew the equipment safety protection rules.
14) All persons not install or repair the machine must move 1500mm away when installing or repairing the machine.
15) Prohibit non-professional electric control person to randomly adjust the equipment in the control cabinet.
16) Prohibit put the iron nail, screw and metals on the machine to prevent them fall into the machine and cause the risk of failure, electrical explosion, etc.
17) Do not ran over the power cord by heavy weight, tools and other sundries to prevent to fray the insulation sheath of power cord and cause the bare wire conductive and personnel injury.
18) Don not put the machine on the lean or uneven place to prevent abnormal operation.

2. Applications:

12 nozzles lipstick filling machine has the functions as following:

1) Filling system is piston filling system, driven by step motor, the speed of filling and pumping material can be adjusted. Filling 12pcs each time, mold lifting device.
2) Filling system with retracting function, run according to the positive & negative rotation principle of feeding step motor.
3) 20L double-layer hopper with heating and stirring, fast feeding and clean. The hopper can be back-out.
4) Spindle rotating switch, positive displacement filling system.
5) Microcomputer man-machine touch panel control the filling capacity and bottle descending speed, no bubbles while filling and keep nozzle clean.
6) Numerical control, ration accurate and stable, greater than or equal to 10g, it can be controlled in 0.1g.
7) External diameter of the bottle could not exceed 20mm, height could not higher than 110mm.
8) Width of fixture could not exceed 50mm.

3. Specifications

	Specification	Size
1	Dimension	70×60×203cm(L×W×H)
2	Power Supply	AC220V，1ψ，50/60HZ，10A
3	Air Pressure	5~6 kg/cm ^{2}

4. Safety Warning Symbol

	Be Careful With Electricity
	Be Careful With Scald

5. Environmental Conditions

1) Mechanical environmental temperature should be 0~50°C.
2) Mechanical environmental humidity should be 20%~85%RH.
3) The machine should be avoided from dusty polluted environment.

6. Environmental Noise Estimated Value

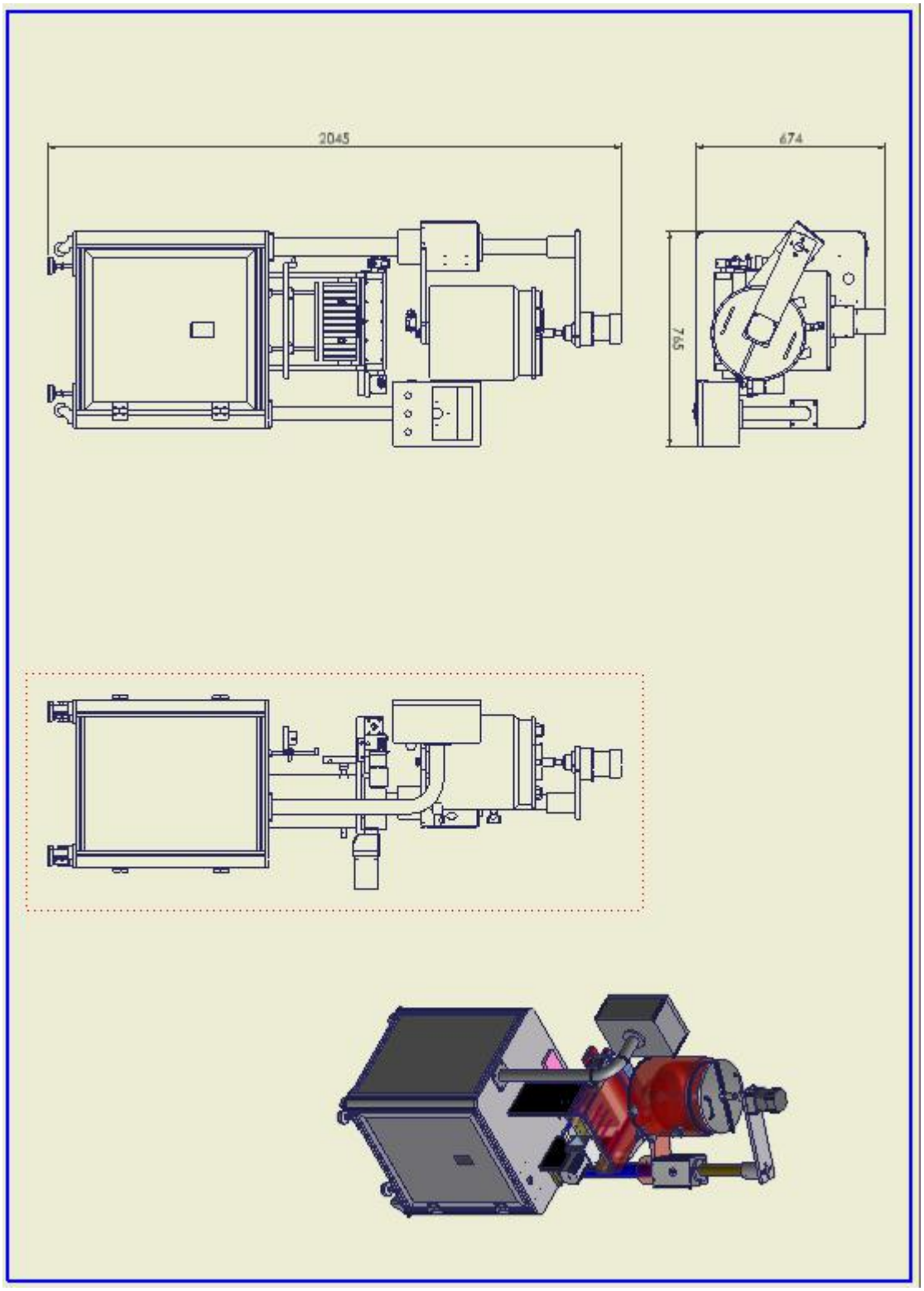
When the machine is running, the noise level produced is below 65dba.

7. Removal Methods

In order to avoiding the machine damaged during removal, the machine is packed in wooden box before leaving factory. After the machine arrived, please remove and unload it as following:

1) Unload the machine from the wooden box to the ground by forklift. If the machine has no wheels, remove it by forklift.
2) If the machine has wheels, manual remove is available. Before removed the machine, screw upward the shockproof feet, 2~3 persons around the machine to remove it and notice the movement directions.

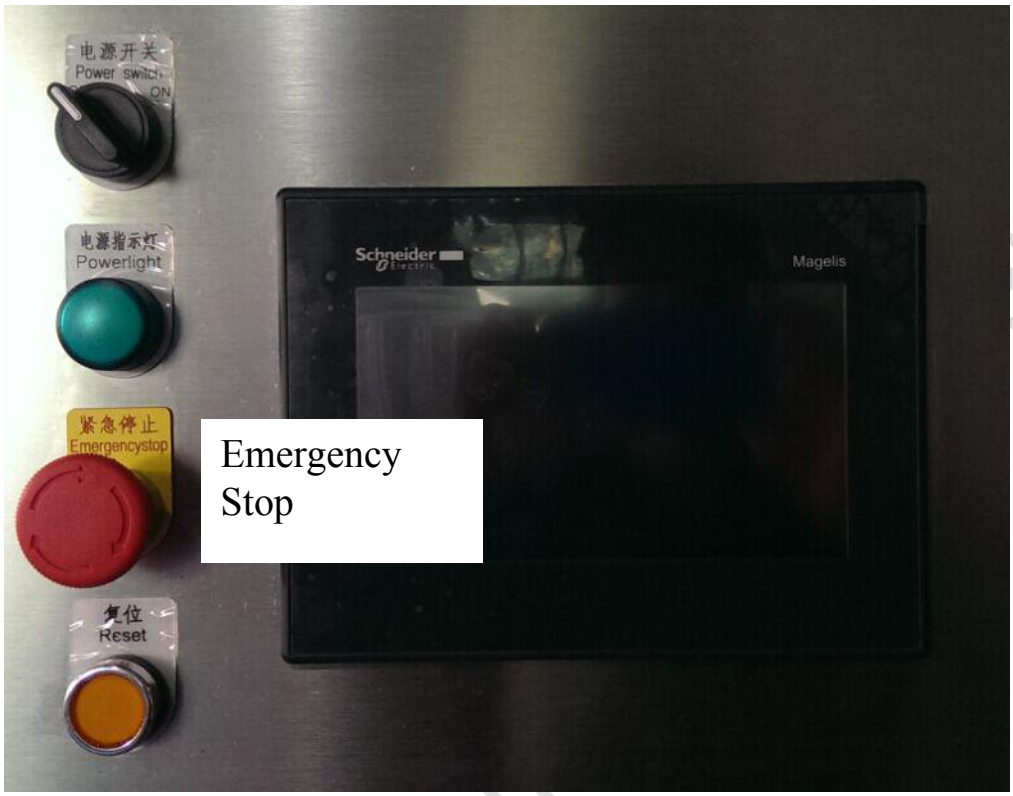
8. Physical Dimension



Emergency Treatment Methods

In case of any emergencies, please do as following:

1) If any emergencies happened, press down the EMERGENCY STOP bu on the control panel to stop the machine.



2) After pressed down the EMERGENCY STOP button, find out the prob and solve.

3) After solved the problem, rotate the EMERGENCY STOP button to the right until bounce.

4) After rotated the EMERGENCY STOP button, the machine is on stand Both START buttons on the control panel must be pressed to restart the machine.

9. Installation Methods

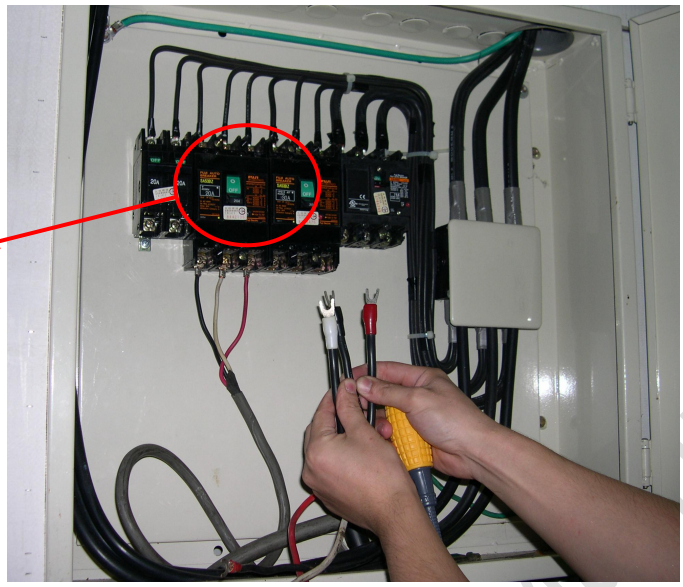
Before the machine running, air pressure and power supply must be connected well, and adjust to the lowest working requirement (air pressure not exceed

5~6kg/cm^2), then start up the machine.

1) Connect power supply

A) Firstly the switch of electric cabinet should be turn to OFF.

Turn the switch to OFF



B) Connect power supply AC220V, 1ψ, 50/60HZ

2) Adjust air pressure

A) Connect the air pressure source to the C-type quick connector on the left of the machine.

B) Adjust the pressure regulating knob. Adjust the needle to 5~6kg/cm^2 on the pressure gauge.

C) Pressure regulating knob must be pulled up to rotate, clockwise rotate to

increase pressure, otherwise, decrease pressure.

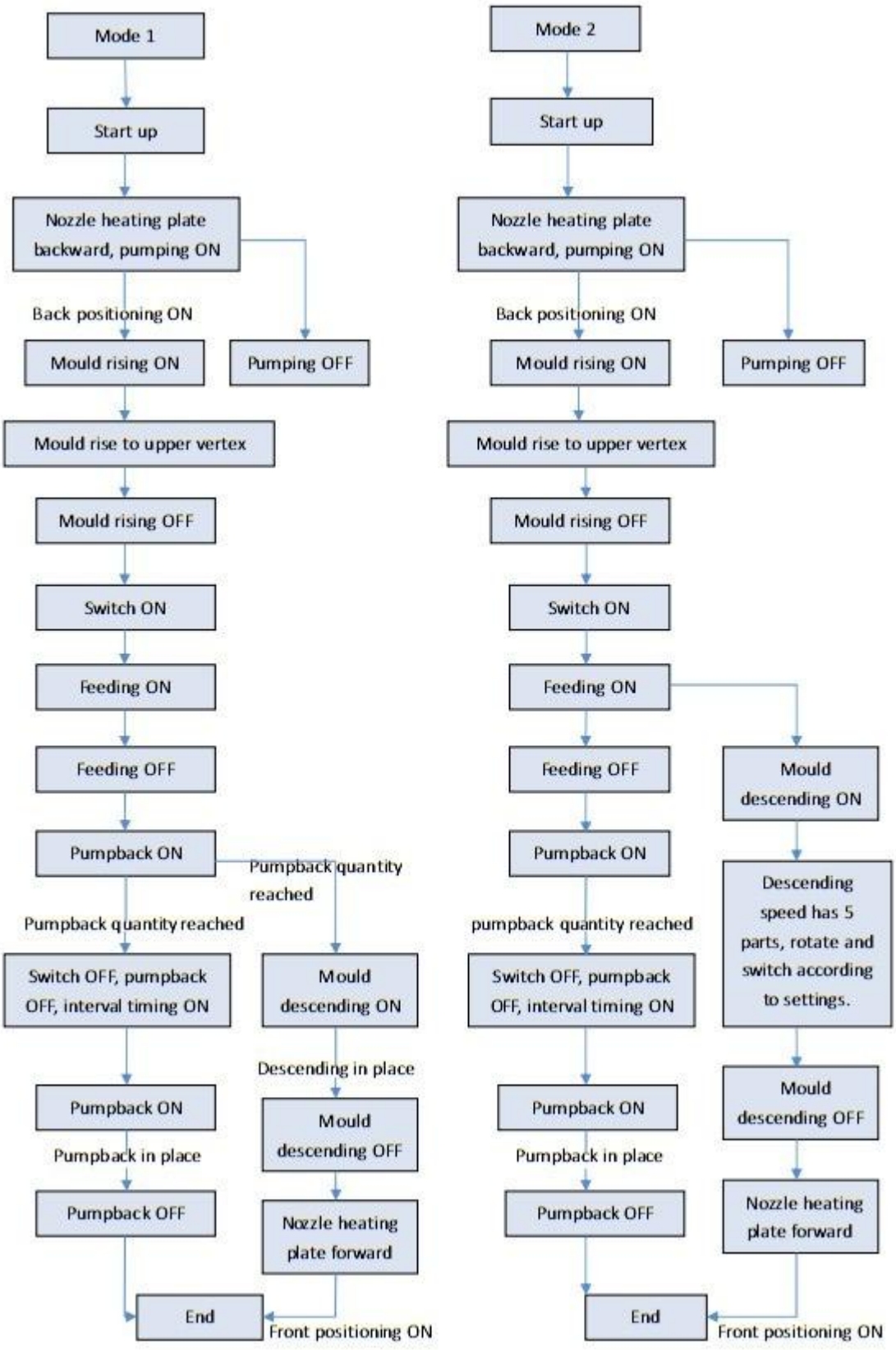
D) After adjusted the pressure, please press down the pressure regulating knob.

10. Operation Precautions

No.	Precautions	
1	Installation	※ Only qualified personnel can remove the machine.

		※ Prohibit collide the machine while removing. ※ Be sure the machine is on level place while installation. (Adjusted by level ruler) ※ Install the machine on the draught, roomy and dry place.
2	Wiring	※ Power distribution only can be made by qualified personnel. Notice the working voltage. ※ Connect ground wire, bad grounding might cause the risk of electric shock or fire. ※ Before the machine running, be sure the emergency switch can be started up to stop the machine at any time. ※ When the machine running, please do not touch the electric cabinet inside, otherwise, it might cause the risk of electric shock or personnel injury. ※ Tighten the screws of wiring terminal on the power supply and the machine, otherwise, it might cause the risk of fire.
3	Operation	※ Before the machine running, change the set value according to the user’ s parameters, otherwise, it might cause the machine work abnormally. ※ When the machine running, please do not put your hand in the machine, otherwise, it might cause personnel injury. ※ The operator must be trained to operate the machine.
4	Air pressure	※ Working pressure is below 4~6kg/cm^2, please do not lower than 4kg/cm^2, otherwise, it might cause the machine work abnormally. ※ Excess water in the pipeline might cause the pneumatic components work poorly. Please install a water filter device and check it frequently. ※ Avoid to using the air pressure under the condition of corrosive gasses, chemical solution, sea water and water vapor.

11. Mechanical Flow Chart



12. Mechanical Panel Operation Instructions

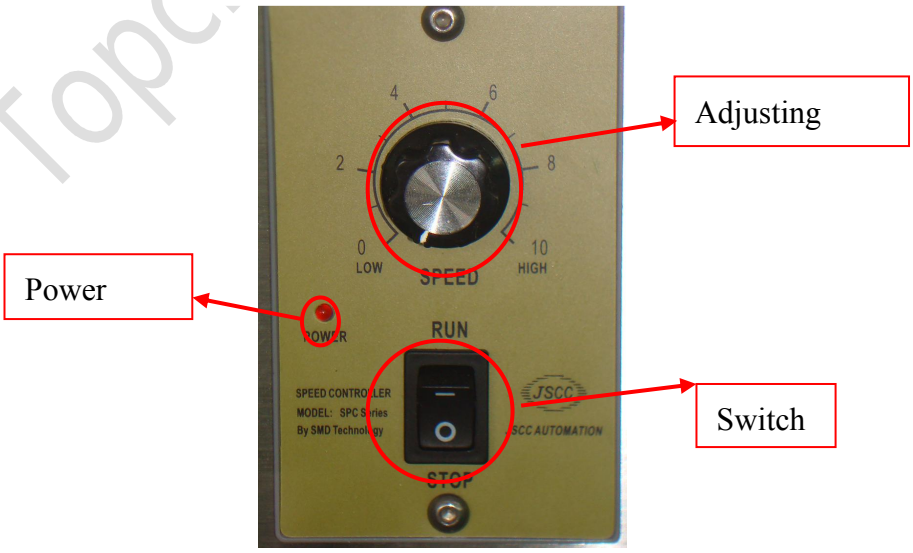
Before operating the machine, please read the mechanical panel operation instructions as following:

1) The main control panel

A1	Touch Screen	Control the machine action and parameters setting.
A2	Power Switch	Power on or off
A3	Reset	Feeding and lifting back to origin
A4	Emergency Stop	Machine stop working
A5	Governor	Adjust the speed of hopper stirring motor
A6	Nozzle Thermometer	Adjust the temperature of nozzle heating
A7	Nozzle Hotplate Thermometer	Adjust the temperature of nozzle hotplate
A8	Stirring Stock Chest Temperature Control	Adjust the temperature of stirring stock chest heating
A9	Hopper Temperature Control	Adjust the temperature of hopper heating

A5. How to use the motor governor:

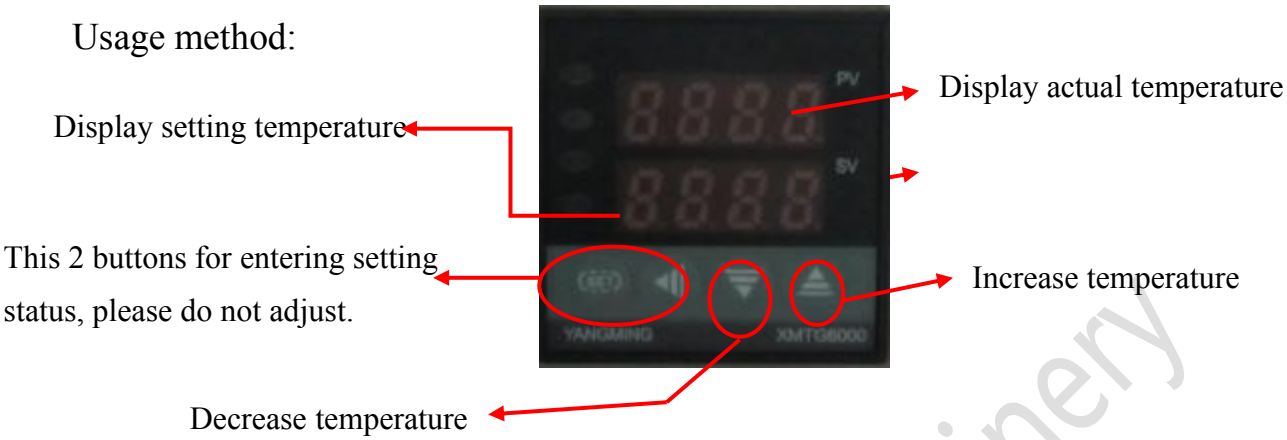
If needed to run the hopper motor, switch this knob to ON to start up the hopper motor. If it is on OFF status, the hopper motor will not start up. The higher the figure selects, the faster speed stirs.



A6, A7, A8, A9, A10. How to use the temperature control:

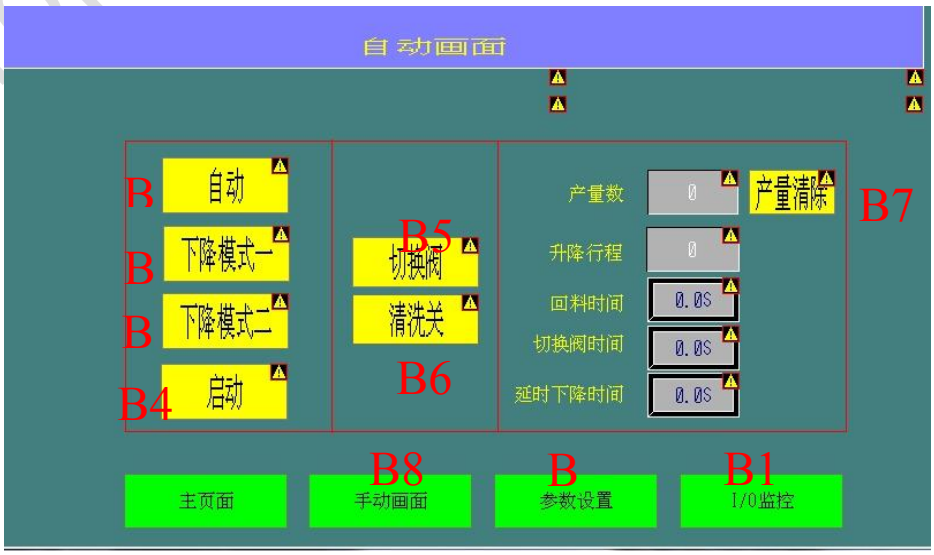
For setting temperature, and display the actual temperature.

Usage method:



2) After switched on the power, the touch screen will enter home page, display Chinese, English, Enter System, as shown below:

Select Enter System, the touch screen will acquiesce in AUTO page, as shown below:



B1. AUTO: Select AUTO, then select a mode (B2,B3), either one must be selected, and then select START(B4) or step the foot switch, the machine will run auto flow mode.
B5. Switching Valve: to switch pumping material or feeding material.
B6. Clean: Clean the machine automatically, pumping material — switch — feeding material.
Select B6 Clean, feeding step motor will automatically clean the stock chest through pumping material and retracting action to clean out the remains. By this time, the lifting unit will have no action.
B7. Production purge: Select this button, production data will be zeroed.

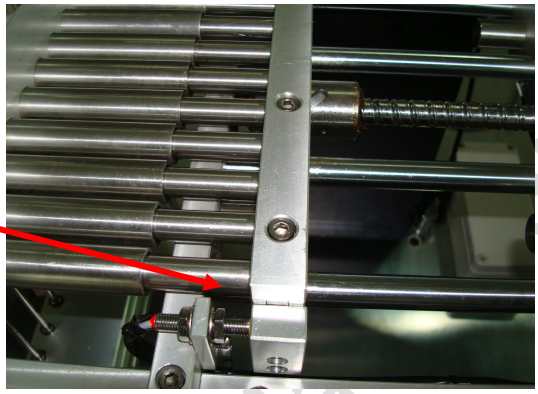
3) B8. MANUAL
After selected MANUAL, the machine will be entered MANUAL page, as shown below:

E0. Manual Operation:
This button must be selected if needed single command to act, then select function key to make the machine perform single action.
E1. Manual Rising:
On E0. Manual Operation status, select E6. Hotplate Backward and E1. Manual Rising, the lifting step motor will perform rising and descending action. At this moment, E17. lifting stroke will appear relevant limit. If starting point was origin, the maximum rising distance is 100mm. If the mold base was fixed on the guide rod, please pay attention not to collide the nozzle.

E2. Manual descending：
Select E2. Manual descending, the step motor will perform descending action, to make the mold base fall back to the rising start position.

E3. Manual feeding:
Select E3. Manual feeding, the feeding step motor will drive the feeding shaft forward until the sensor stop sensing.

Sensor, is the origin of feeding unit.



E4. Manual pumping material:
Select E4. Manual pumping material, the feeding step motor will perform pumping material action.

E5. Switching valve:
Select E5. Switching valve to be switched pumping material or feeding.

Before the machine leaving the factory, it has been adjusted to the best position, do not disassemble the PUMP and adjust the switching shaft position unless really has to. If needed to make adjustment, notice the alignment of switching cylinder position, PUMP and rotation shaft. (Align mark position is ok.)

E6. Hotplate backward:

Select this key to make the nozzle hotplate backward or forward, alternate with each other. (When the mold base rising and leaving the origin position, this function will be locked and could not forwards.)

E7. Stock chest stirring:
Select this key to make the stock chest stirring begin to stir. Press this key again, the stock chest stirring will stop, alternating with each other.

E8. Hopper 1 stirring:
Select this key to make hopper 1 stir. Press this key again, the hopper stirring will stop.

E9. Hopper 2 stirring:
Select this key to make hopper 2 stir. Press this key again, the hopper stirring will stop.

E10, E11, E12, E13 and E14 heating switches:
Select these switches, each device will start to heat according to the set temperature of A6-A10 temperature control. When the temperature reached the set value, A6-A10 temperature control will stop heating automatically. When the temperature below set value, A6-A10 temperature control will heat automatically, running in circles.

4) B9. Parameter setting：

Select B9. Parameter setting, as shown below:

Setting method as shown below:

Setting has 5 selections of filling speed, pumping speed, pumping distance, retracting distance, rising distance. Formulation team and formulation is a grouping method of save. After set and press DOWNLOAD, click SAVE, one setting is done.

A) Filling speed: It is the motor speed behind the stripper plate. (Max.60, Min. 0)

B) Pumping speed: Equal to filling speed, the same motor. (Max. 60, Min.0)

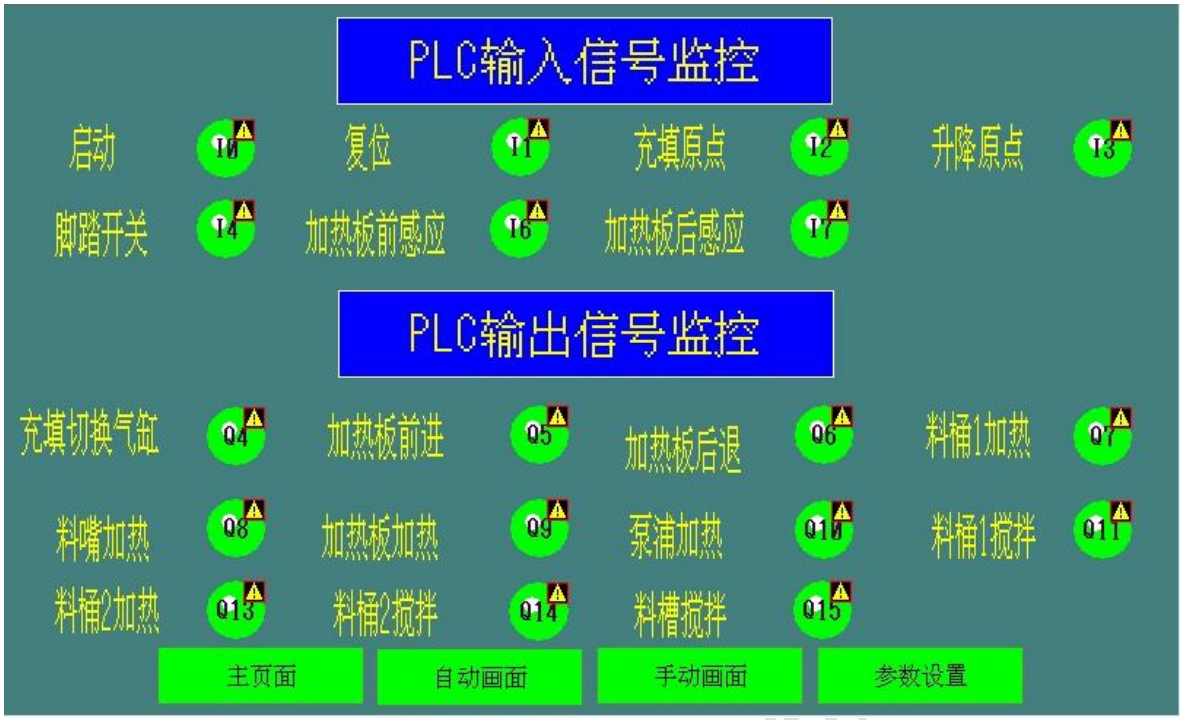
C) Pumping distance: To set feeding capacity, the longer pumping distance, the more feeding capacity. (Max. 100, Min.0)

D) Retracting distance: It is the distance that the feeding rod returned after feeding material. If the filling port appear wire-drawing after feeding, this value can be set. (Max. 5, Min. 0)

E) Rising distance: It is mold rising limit. (Max. 100, Min. 0)

5) B10, I/O monitor:

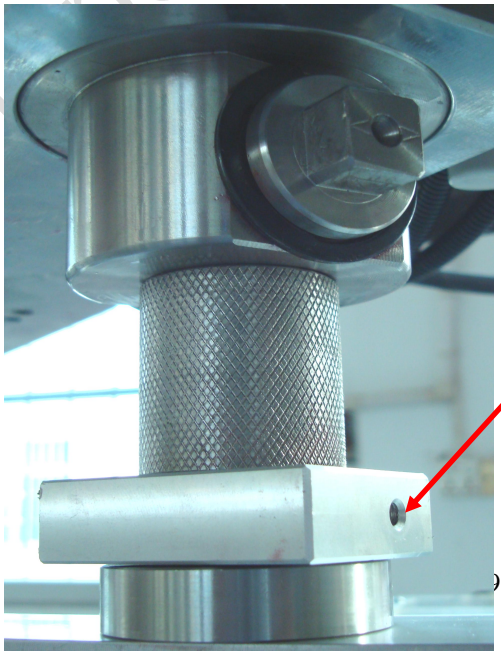
Select I/O monitor, as shown below:



I/O monitor, actually monitor input and output, it can reflect current situation.

13. Mechanical Adjustment

1) Supply correct voltage and air pressure.
2) If needed to clean the hopper or after used, operation method as following: (Notice: Firstly shut off the ball valve, and then shut off the hopper heating plate to move the hopper.)



Loosen the screw on the U type block of the PUMP, and slide down the embossed connecting sleeve.

Switching position adjustment:

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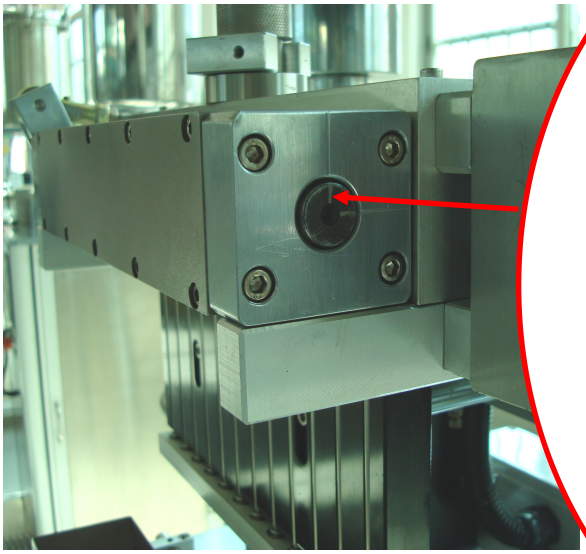
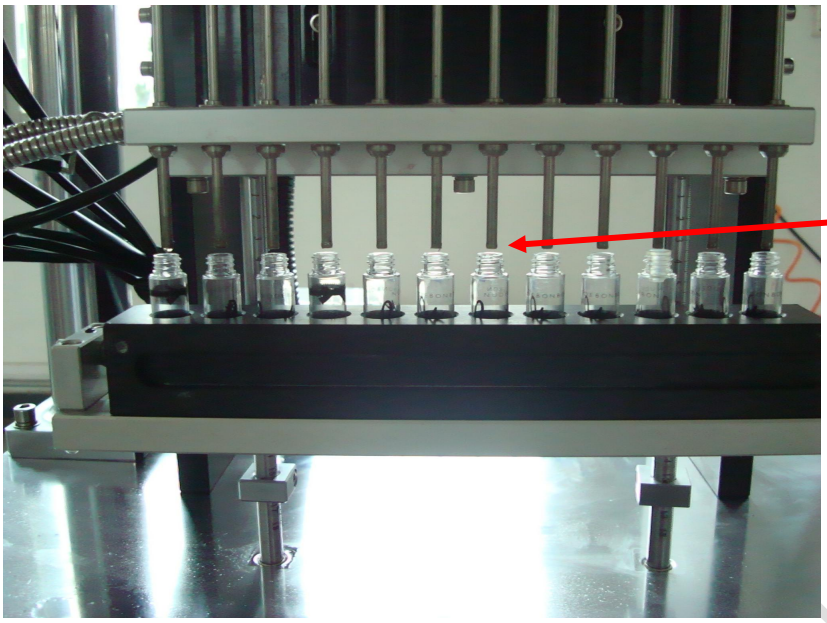


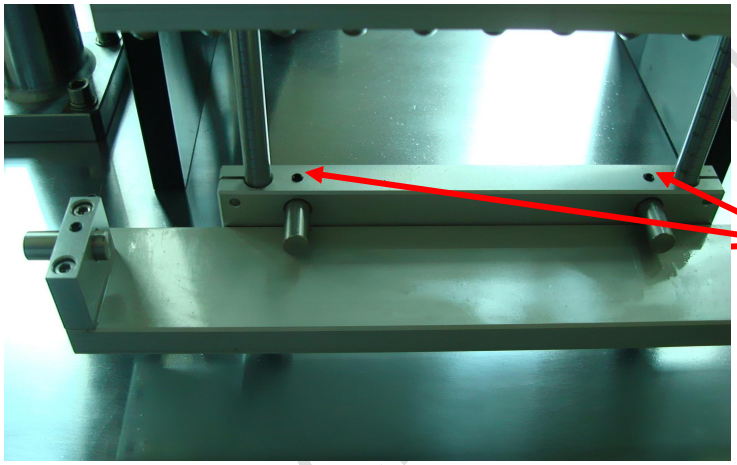
Here has mark for aligning. Before leaving the factory, it is adjusted to the best. Please do not disassemble the PUMP body randomly. When changing material, if the color closed, use white oil to clean is OK. If the colors are much different, disassemble the PUMP. Only professionals allowed. Do not bruise the switching shaft of PUMP.

Adjustment for the central position of bottle mouth and nozzle:

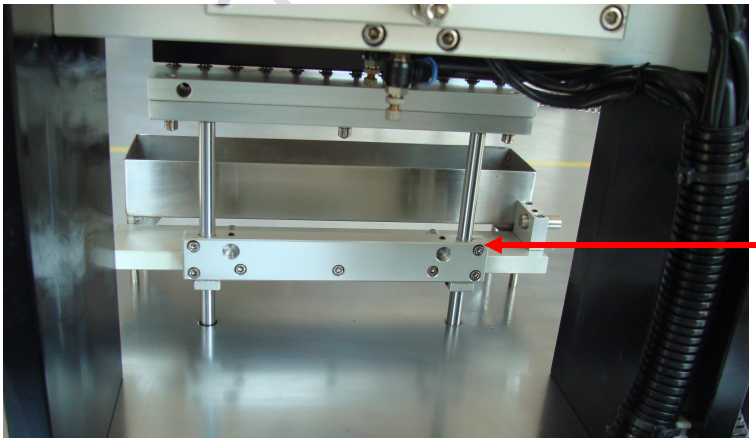
1. After entered MANUAL interface, press on MANUAL RISING until reached a suitable height, check if the height of bottle mouth and nozzle are on the same center.



2. Check if the height of bottle mouth and nozzle are on the same center. If no, adjust the central position of bottle mouth and nozzle. The distance between the nozzle and the bottle bottom should be at least 1-2mm.



3. Loosen these screws to adjust the central position of mold and nozzle.



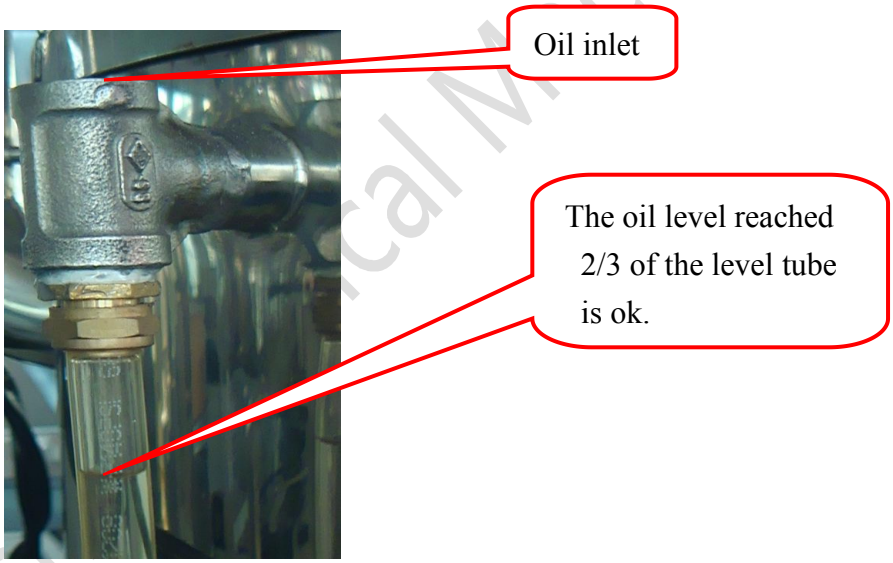
4. Loosen the screws on both sides of the fixed block behind the machine to adjust the mold base height up and down.

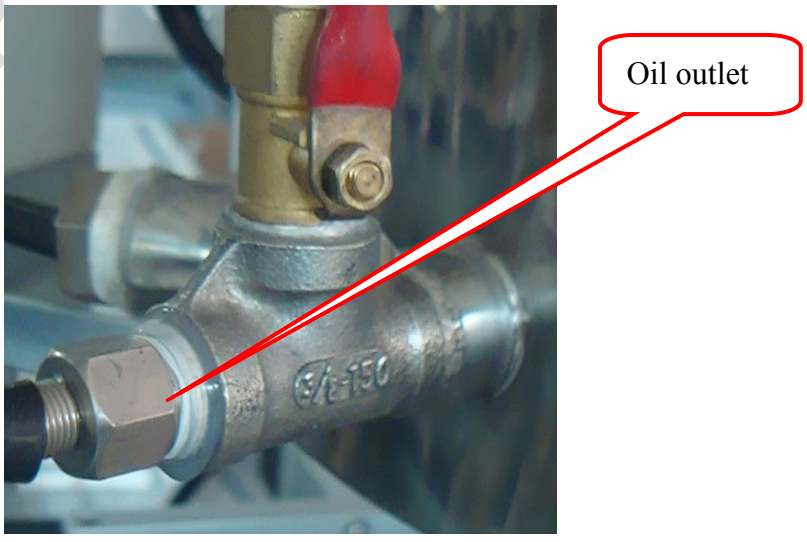
14. Maintenance and Clean

To make the machine run smoothly and extend its life, maintenance must be done as below. Before maintaining, please shut off the power supply and exhaust air pressure, then maintain as following:

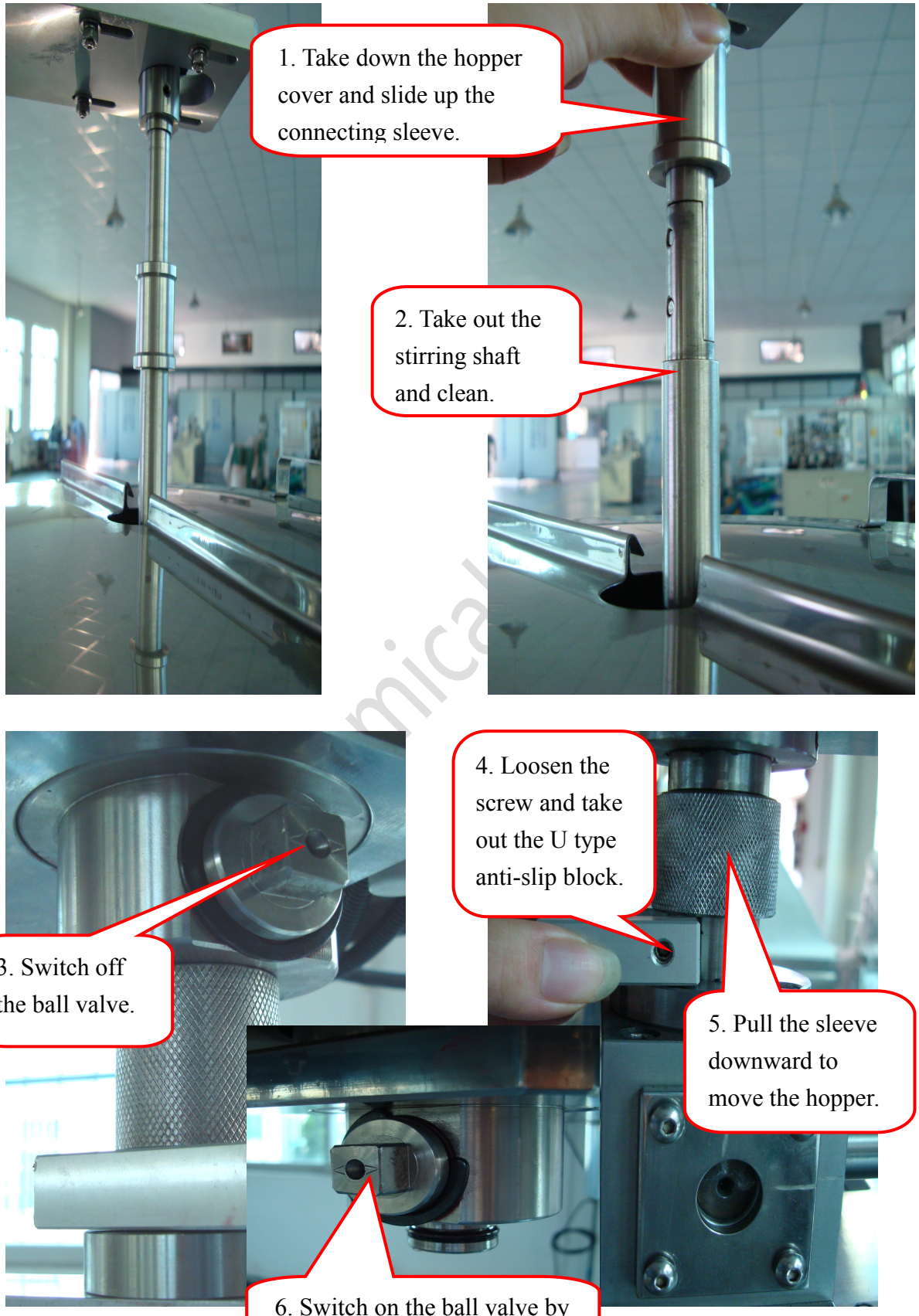
1) Keep the machine clean.
2) Regularly check if the screws loosed or not, tighten it if yes.
3) Check the connecting control wire, broken/bare wire is prohibited.
4) Please make dry treatment for air source to avoid influencing the machine’ s life.

White oil level:

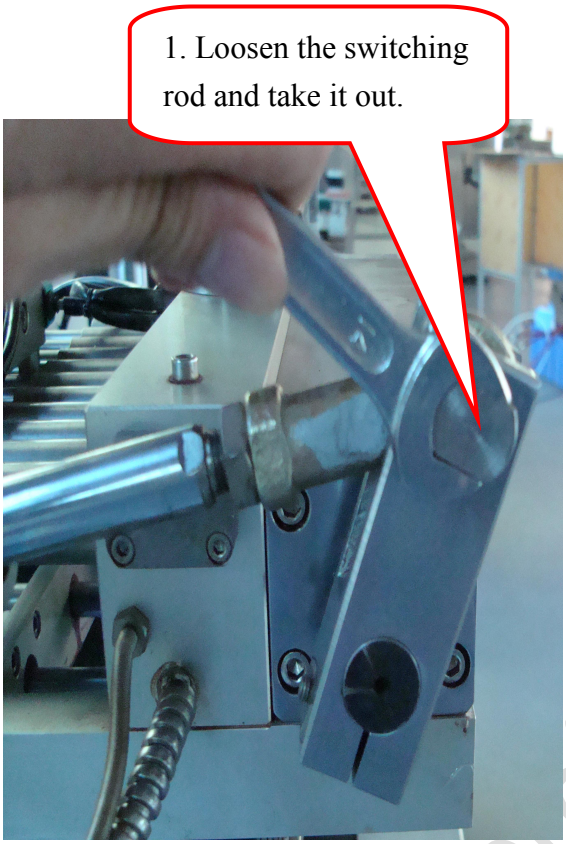


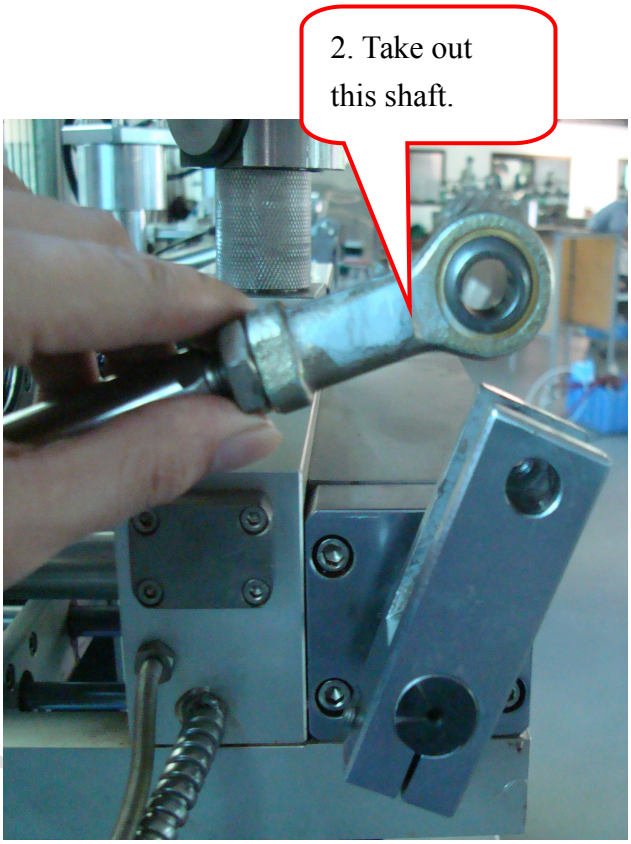


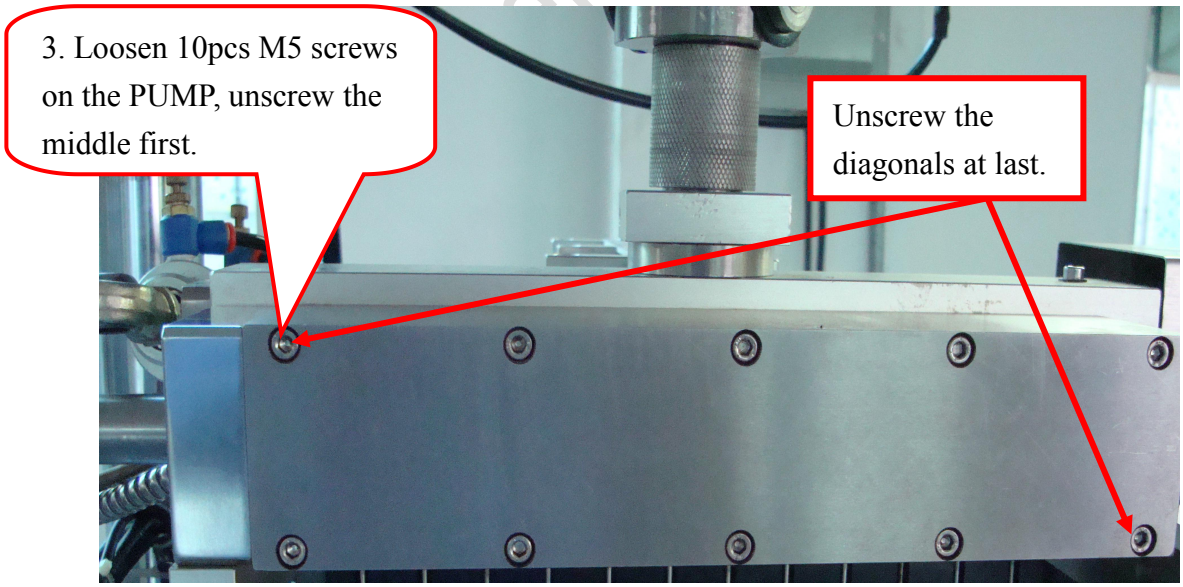
1) After filling, how to clean the hopper?



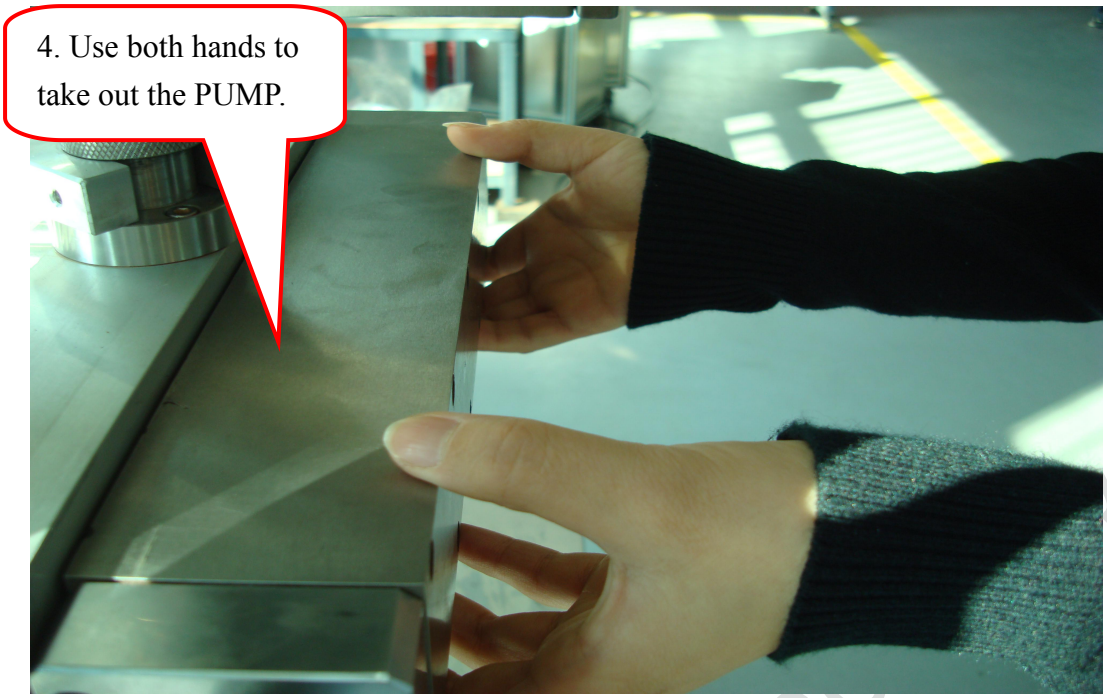
2) How to clean the PUMP?

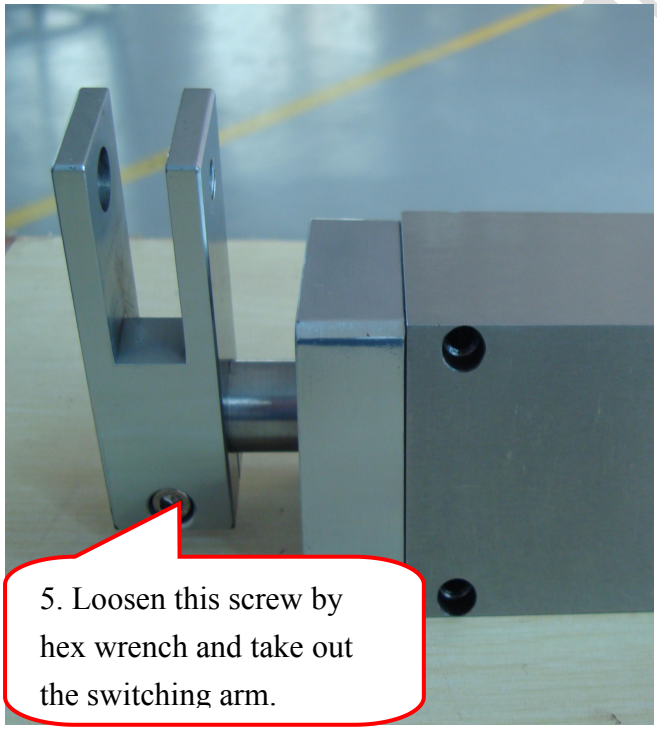


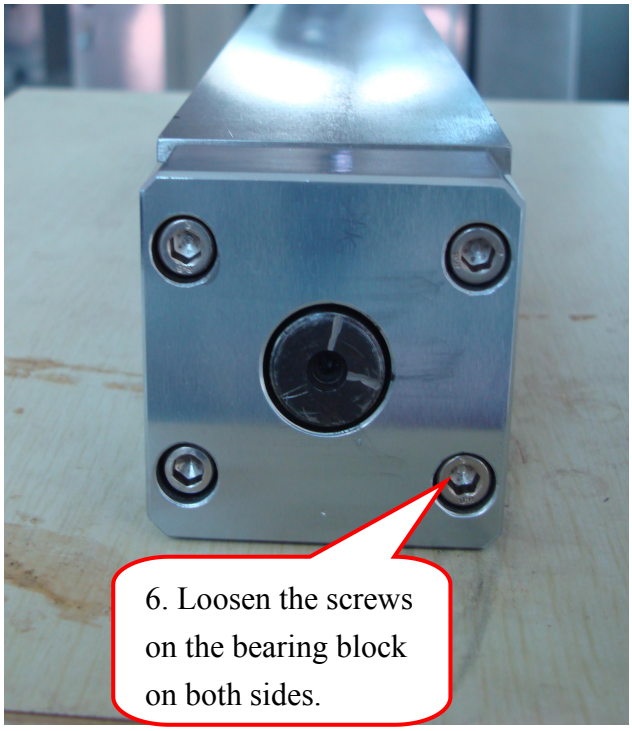


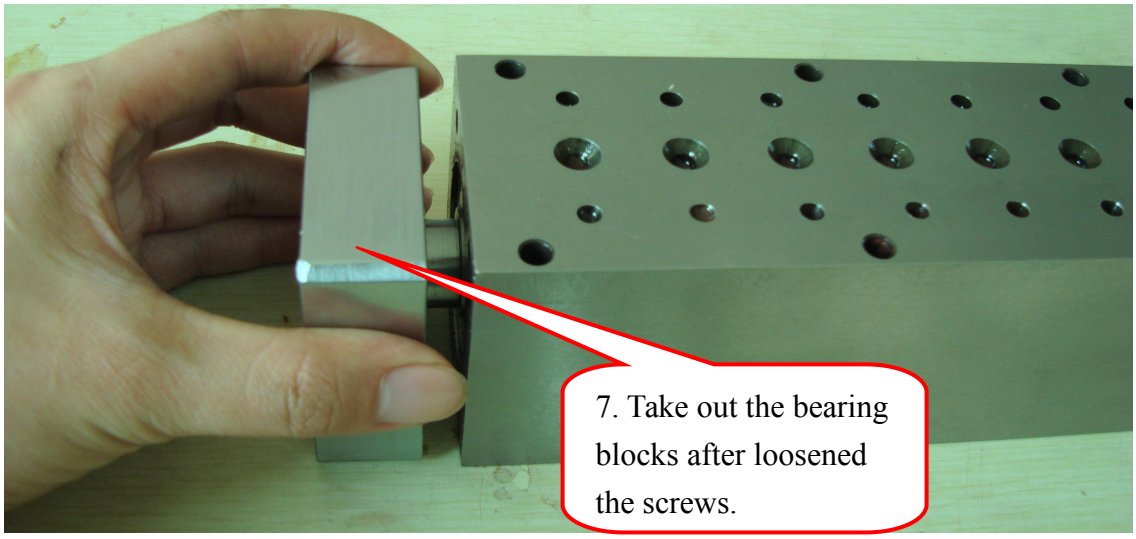


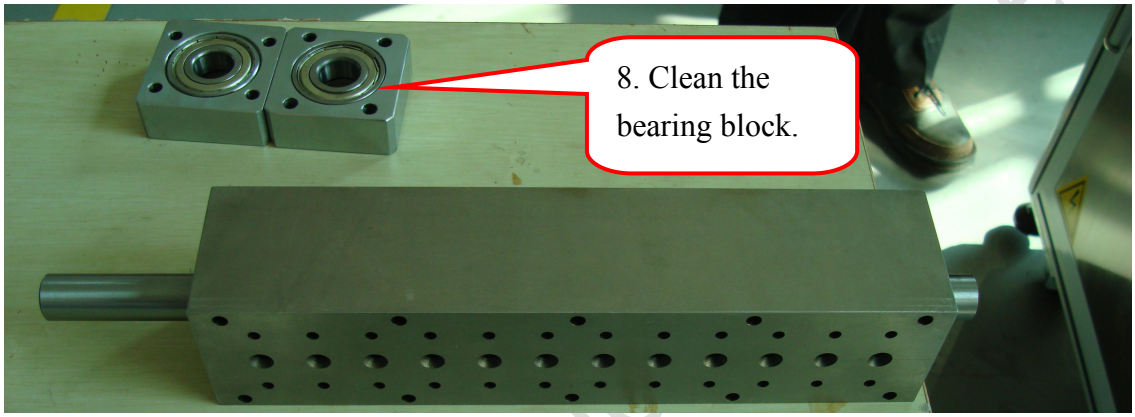
Notice: 1. When disassembling the PUMP, please notice the unscrewing order, middle first, diagonals at last.
2. Notice to prevent the screw damaged.

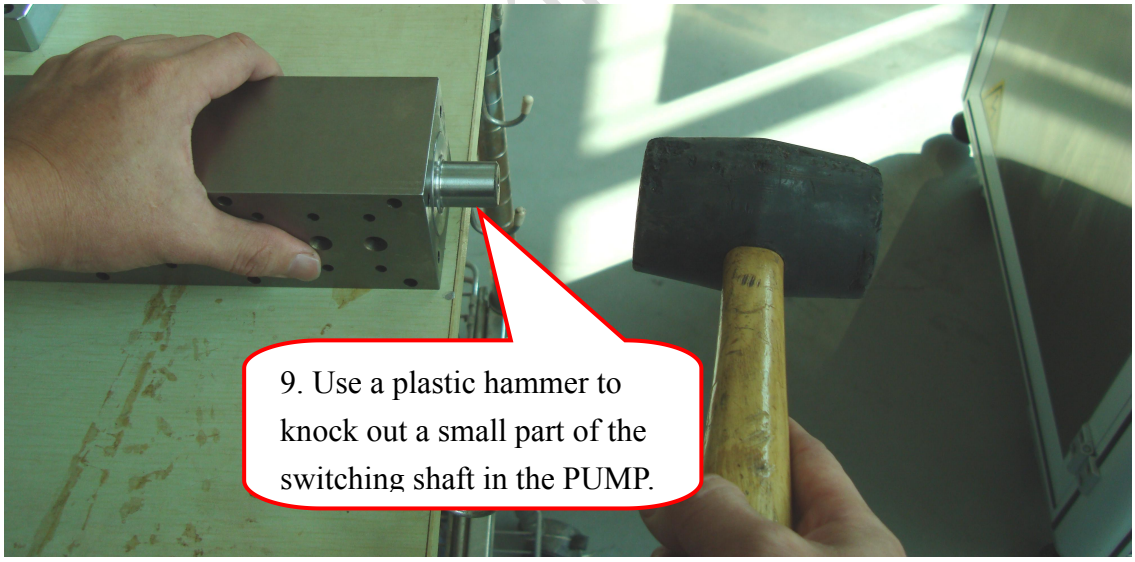

4. Use both hands to take out the PUMP.

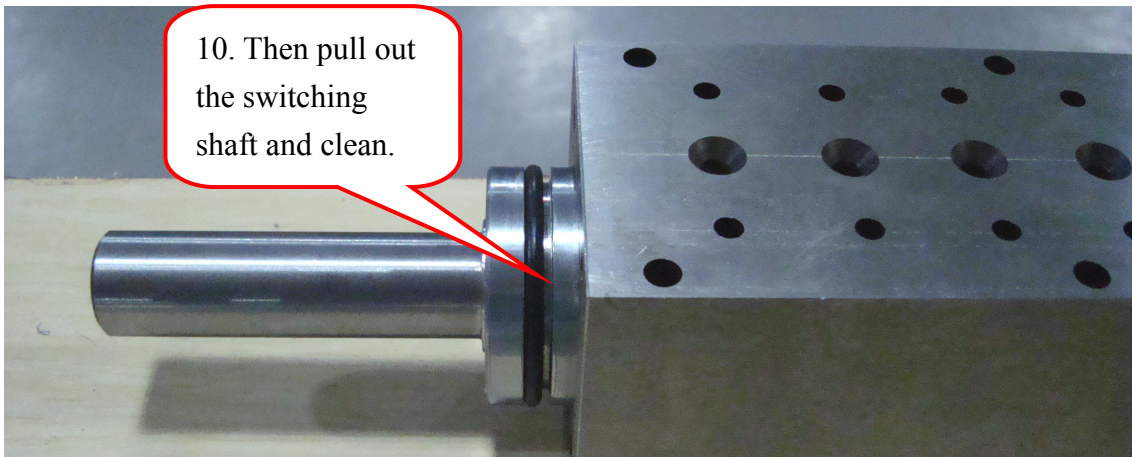

5. Loosen this screw by hex wrench and take out the switching arm.

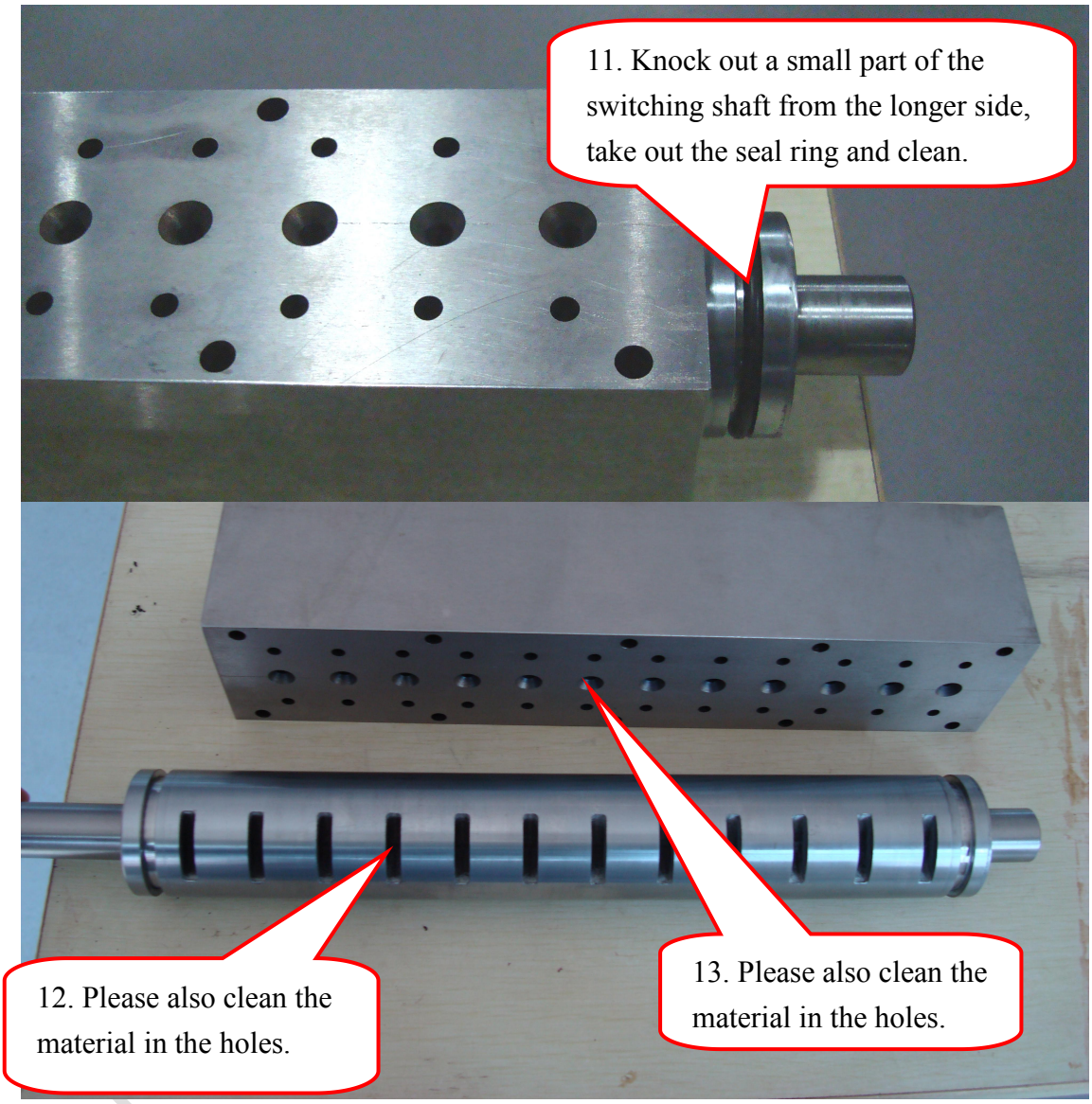

6. Loosen the screws on the bearing block on both sides.


7. Take out the bearing blocks after loosened the screws.

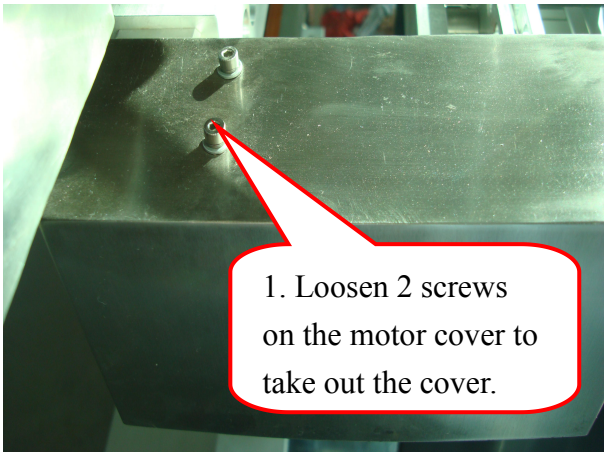

8. Clean the bearing block.

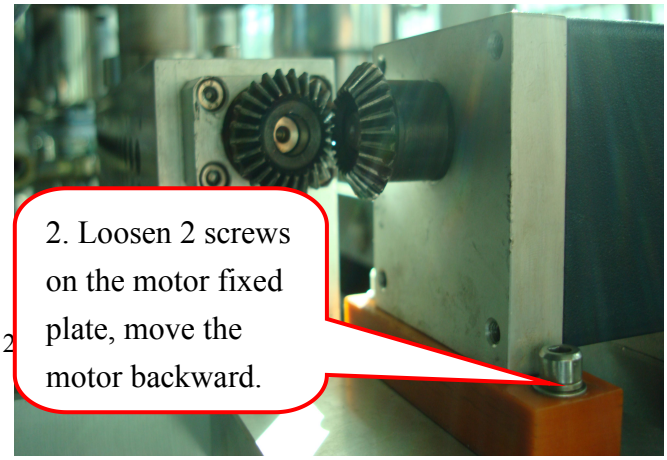

9. Use a plastic hammer to knock out a small part of the switching shaft in the PUMP.

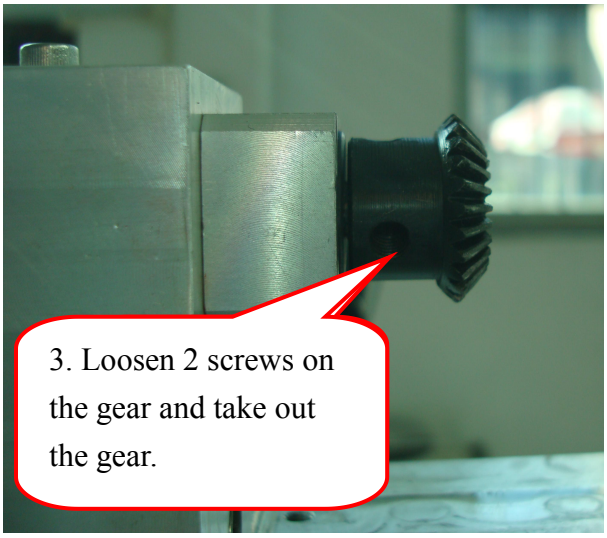

10. Then pull out the switching shaft and clean.

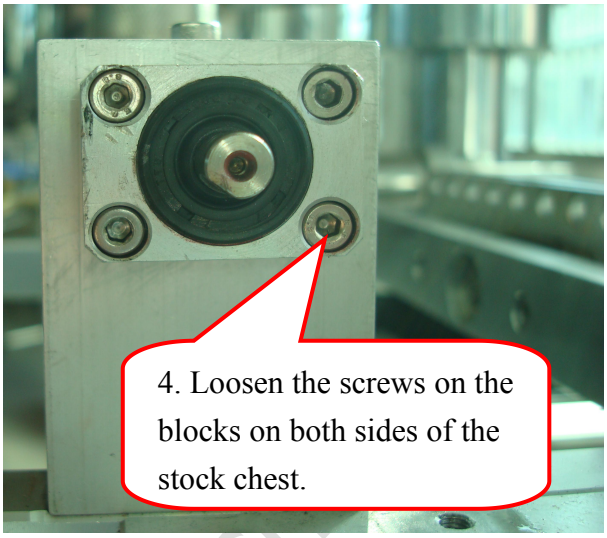


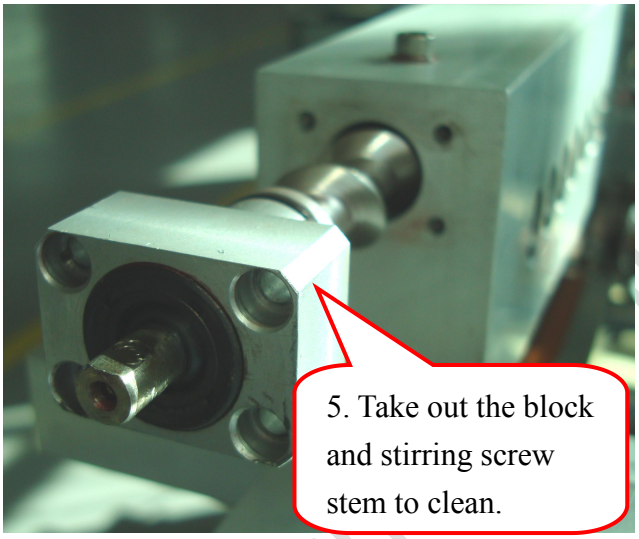
3) How to clean the stock chest, feeding pipe and feeding shaft?

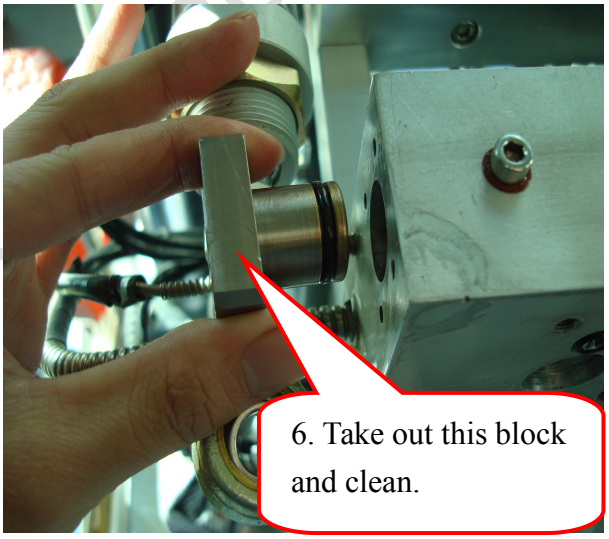


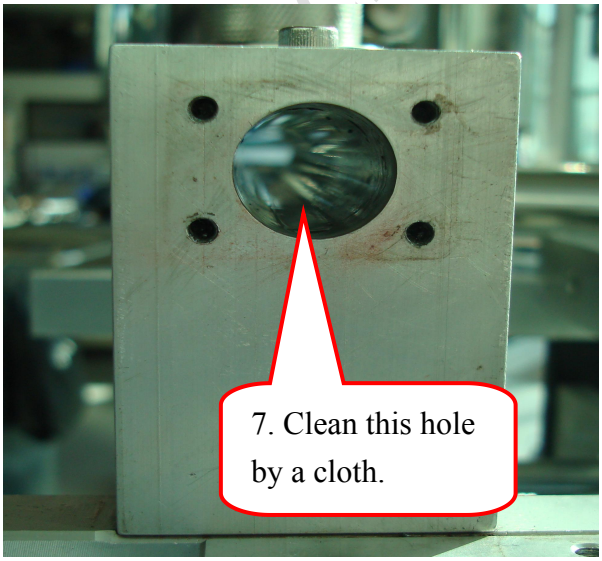


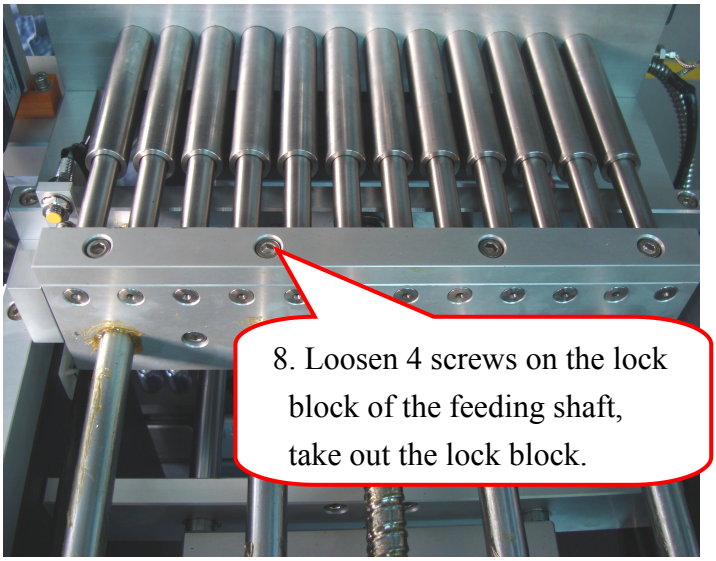

3. Loosen 2 screws on the gear and take out the gear.

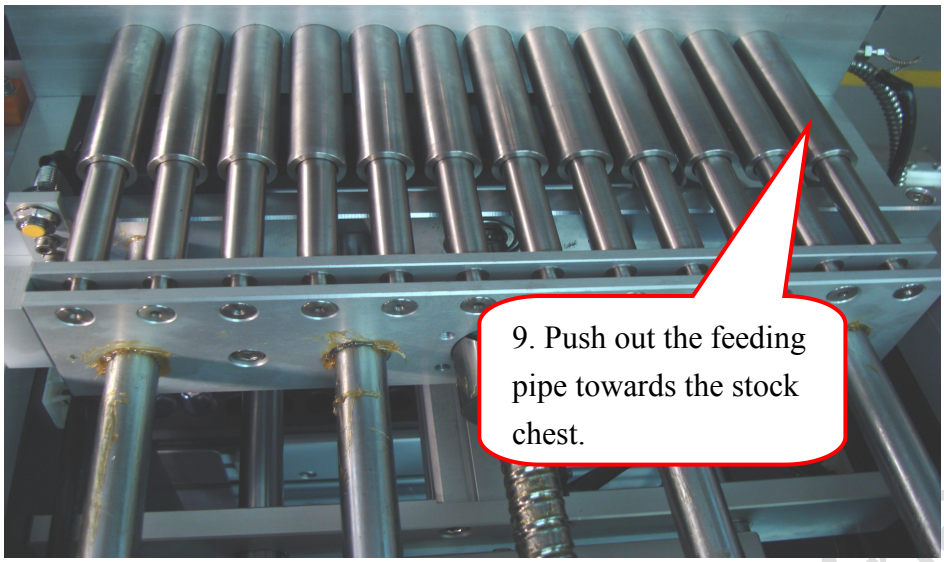

4. Loosen the screws on the blocks on both sides of the stock chest.

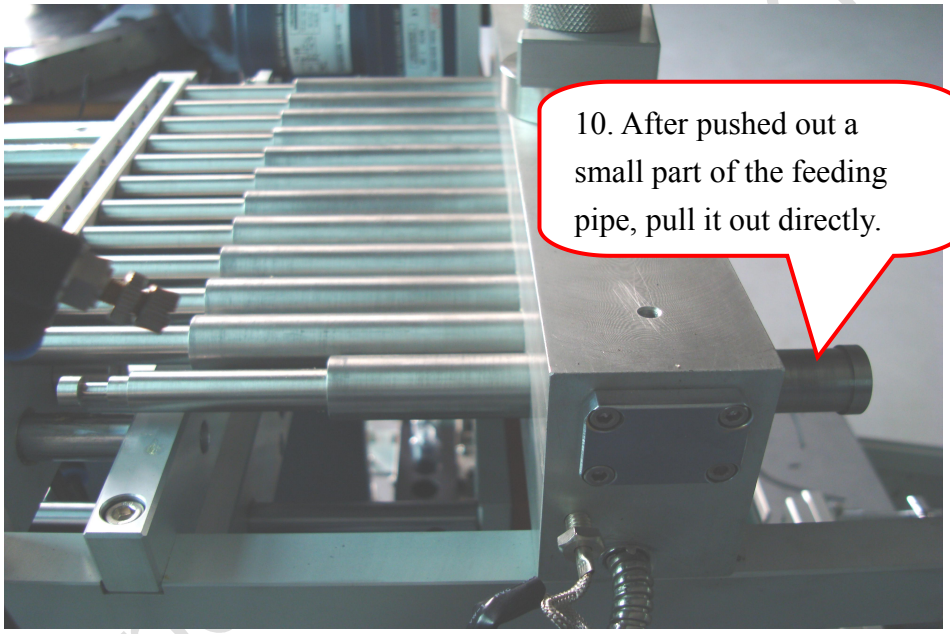

5. Take out the block and stirring screw stem to clean.


6. Take out this block and clean.

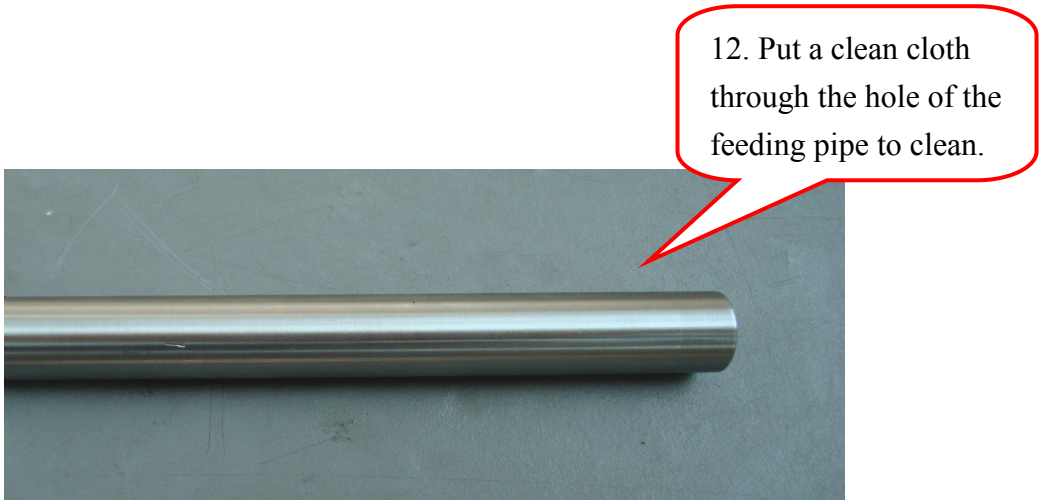

7. Clean this hole by a cloth.


8. Loosen 4 screws on the lock block of the feeding shaft, take out the lock block.

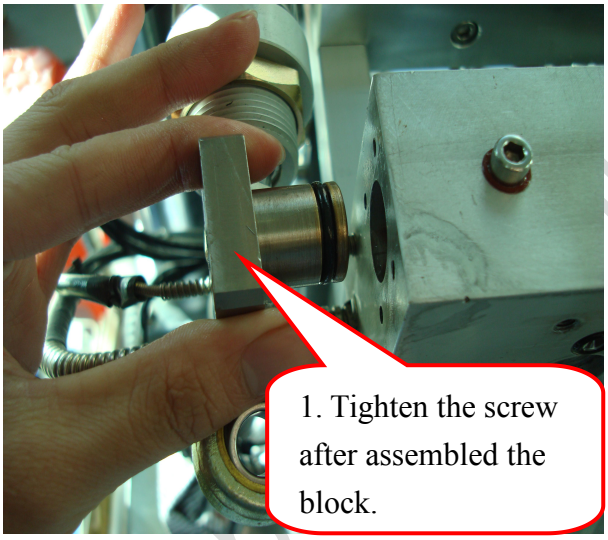

9. Push out the feeding pipe towards the stock chest.

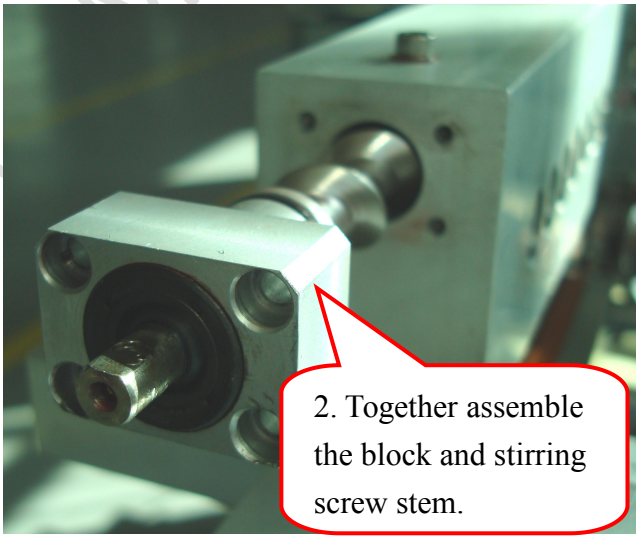

10. After pushed out a small part of the feeding pipe, pull it out directly.

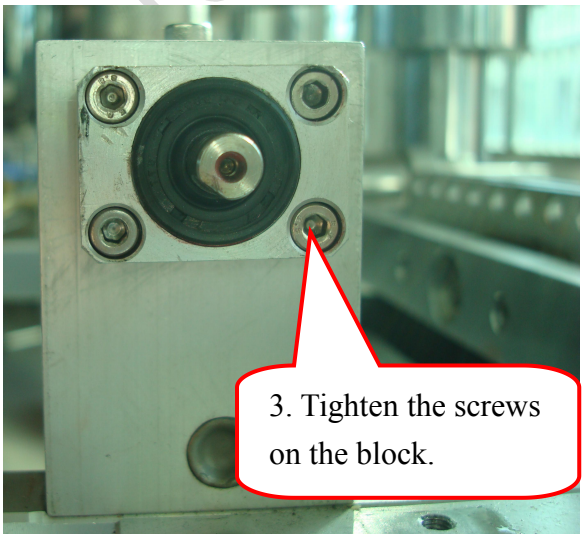

11. Take out the feeding shaft and O ring to clean.

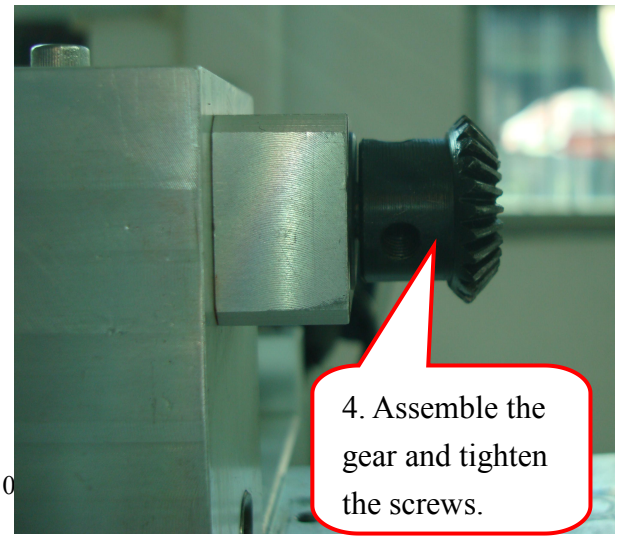


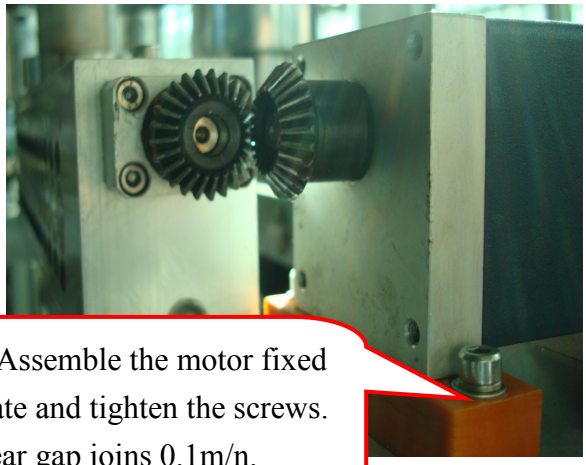
4) How to assemble the stock chest, feeding pipe and feeding shaft?



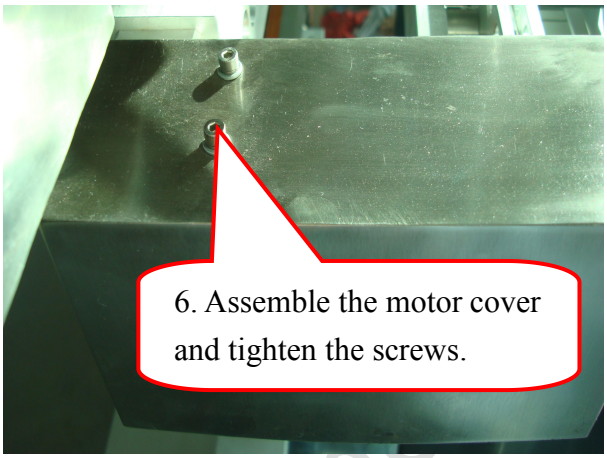




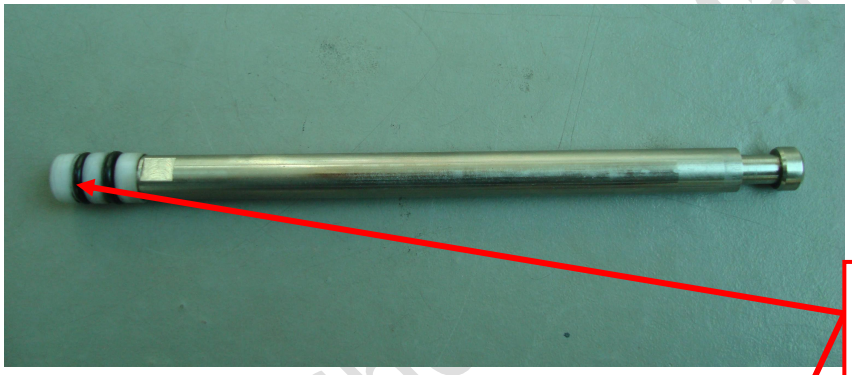




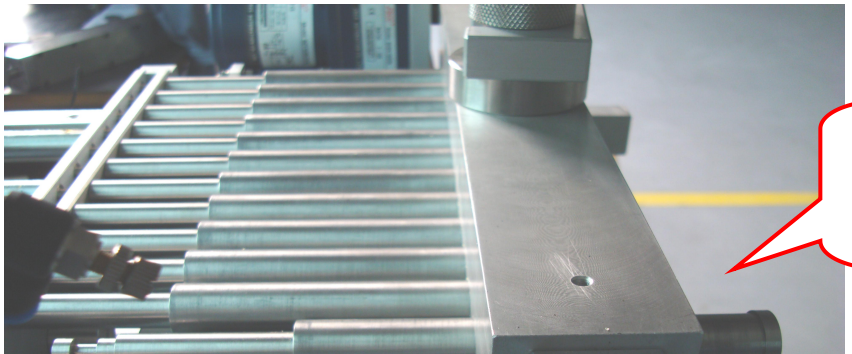
5. Assemble the motor fixed plate and tighten the screws. Gear gap joins 0.1m/n.



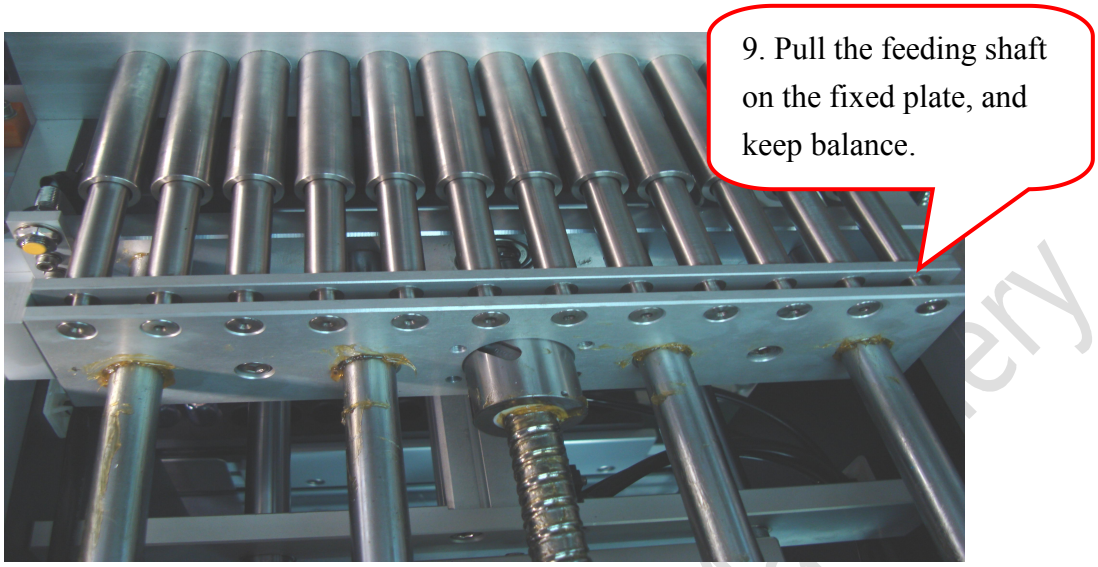
6. Assemble the motor cover and tighten the screws.

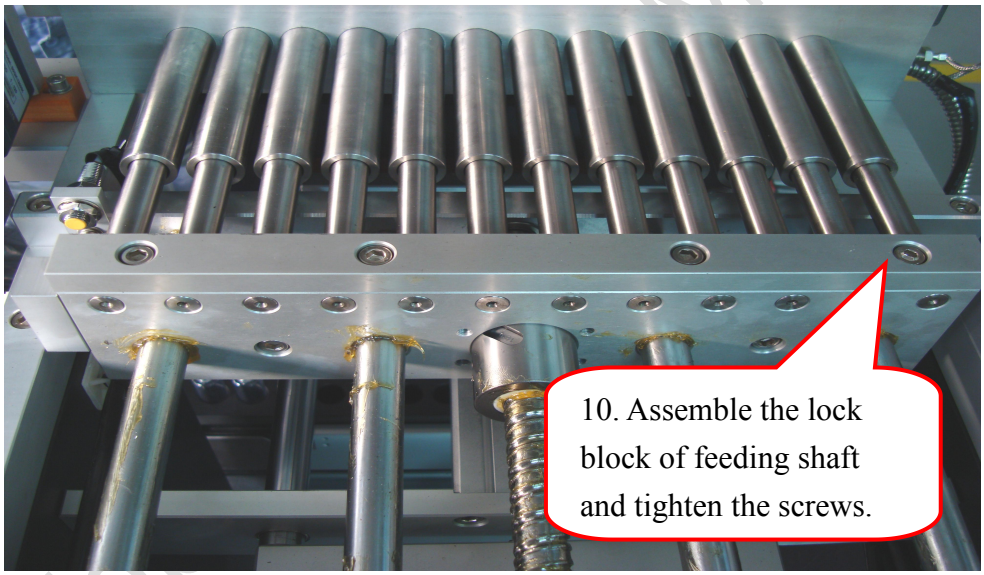


7. Assemble well the feeding shaft and feeding pipe.

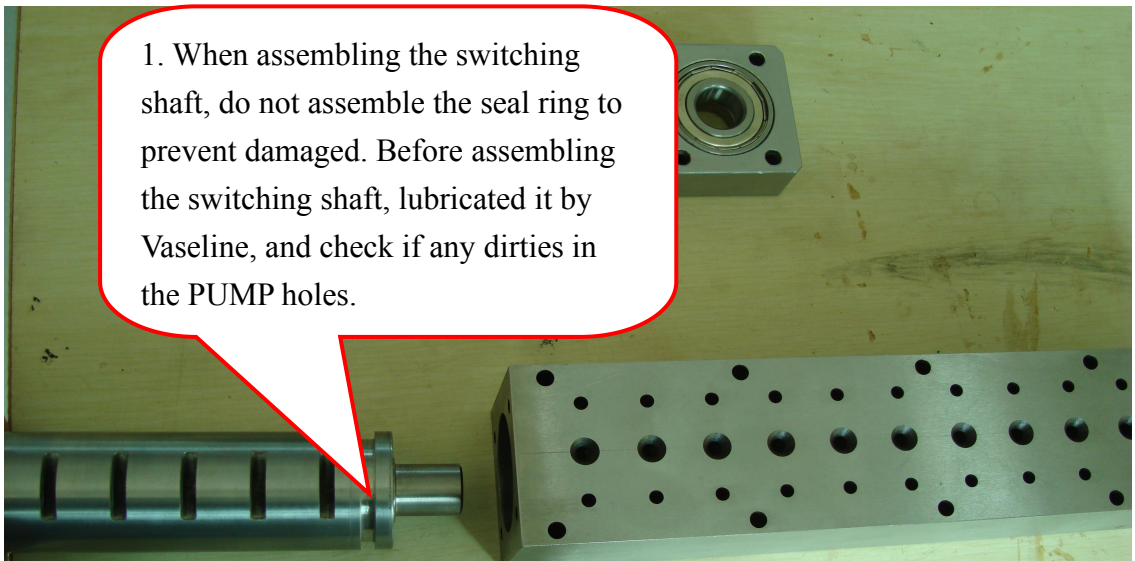


8. Assemble the feeding pipe from the side of stock chest.

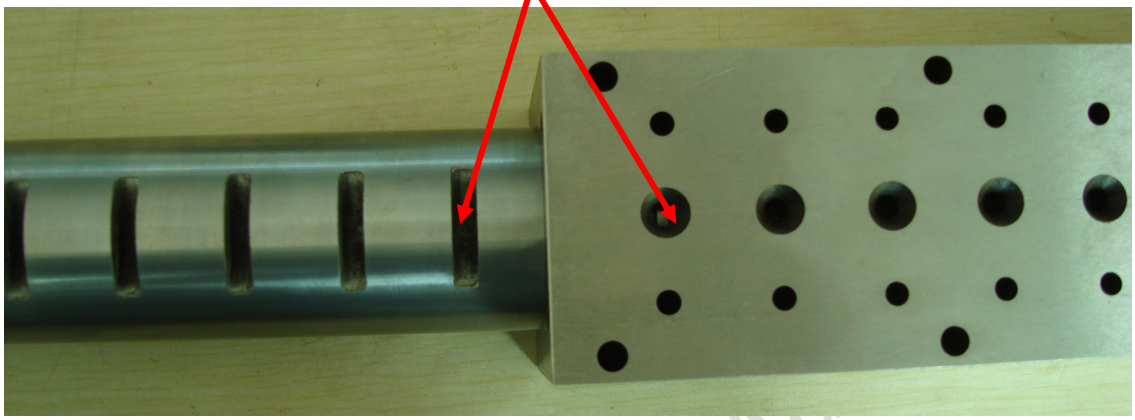


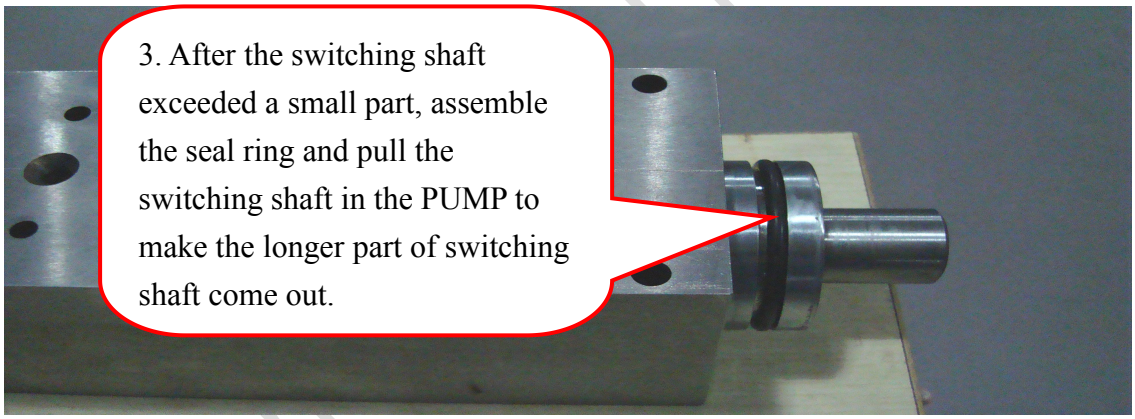


5) How to assemble the PUMP?



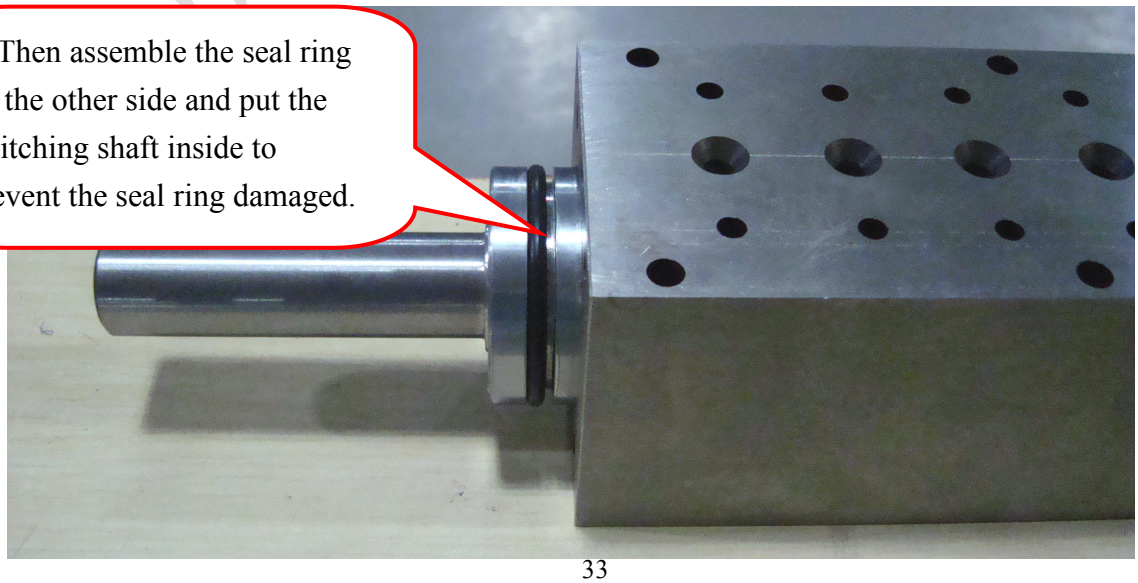
2. When assembling, the holes direction of switching shaft and the PUMP should be aligned.

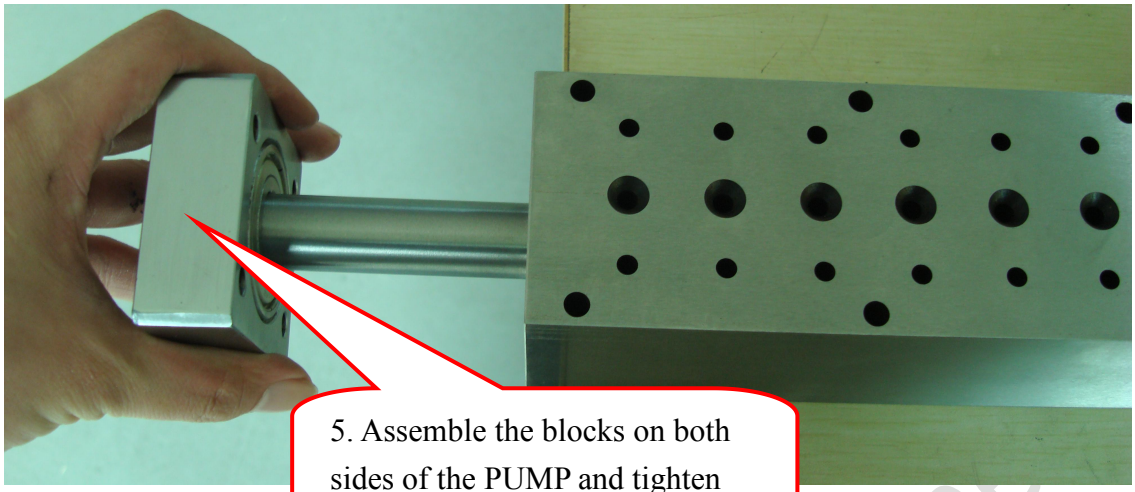


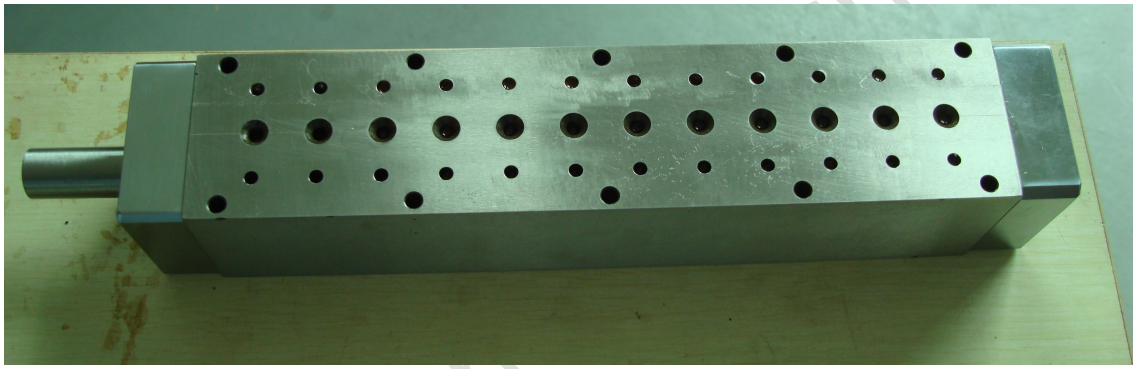


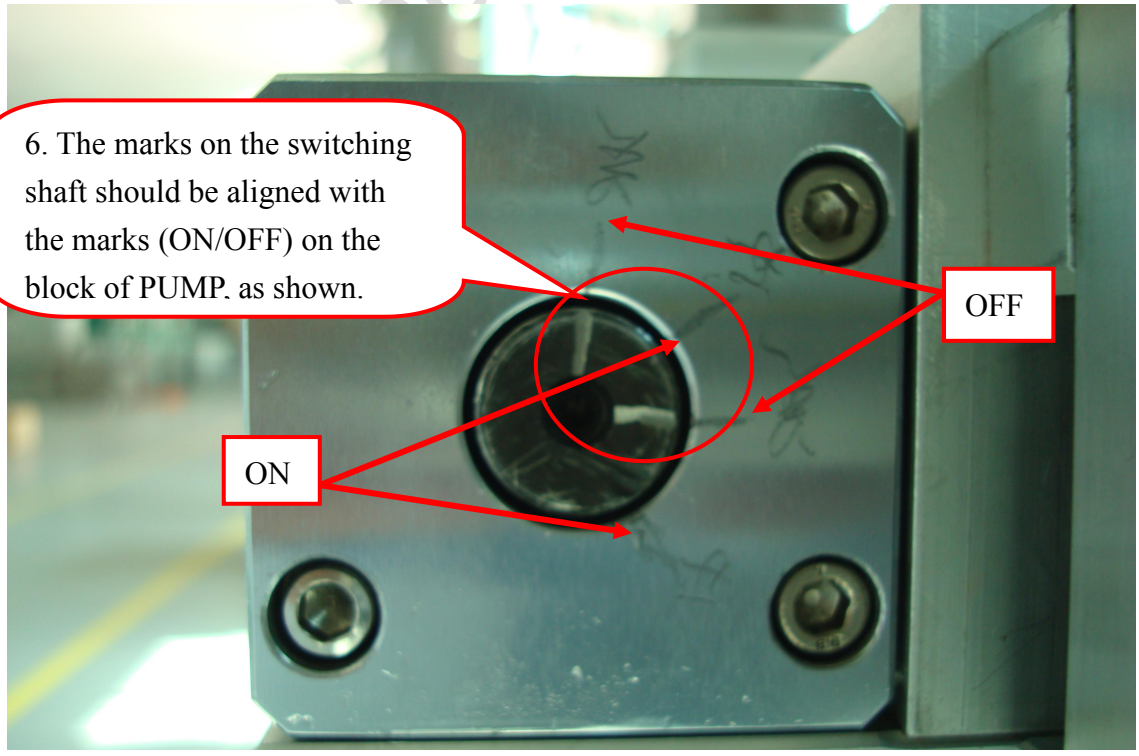
3. After the switching shaft exceeded a small part, assemble the seal ring and pull the switching shaft in the PUMP to make the longer part of switching shaft come out.

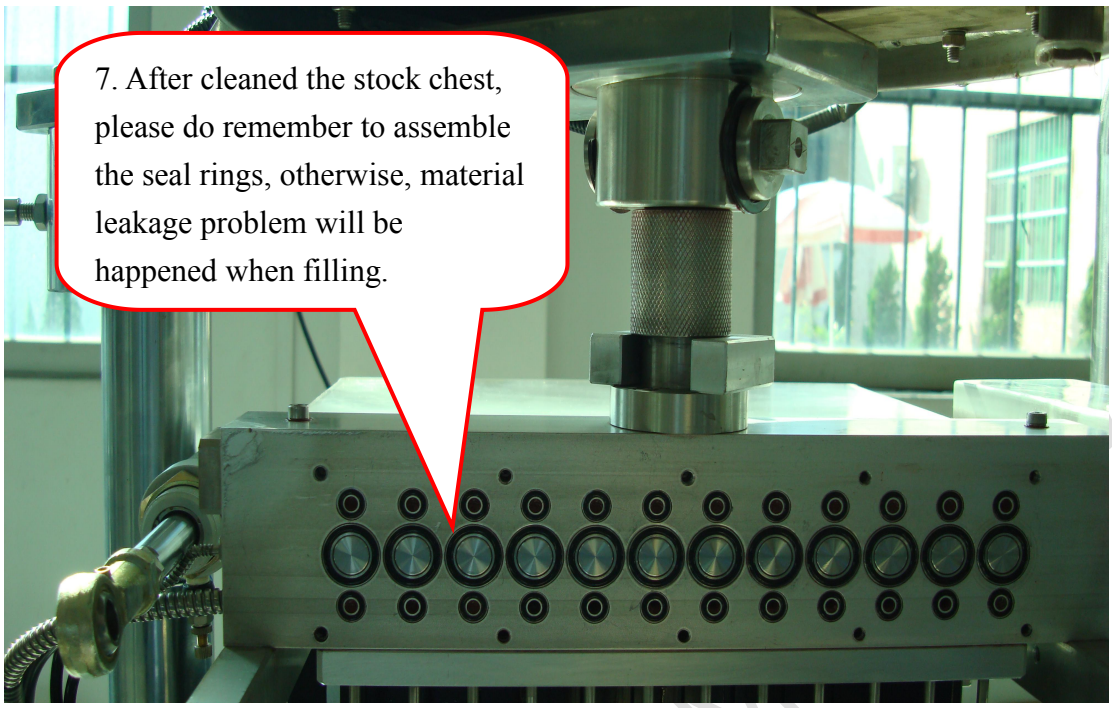
4. Then assemble the seal ring on the other side and put the switching shaft inside to prevent the seal ring damaged.

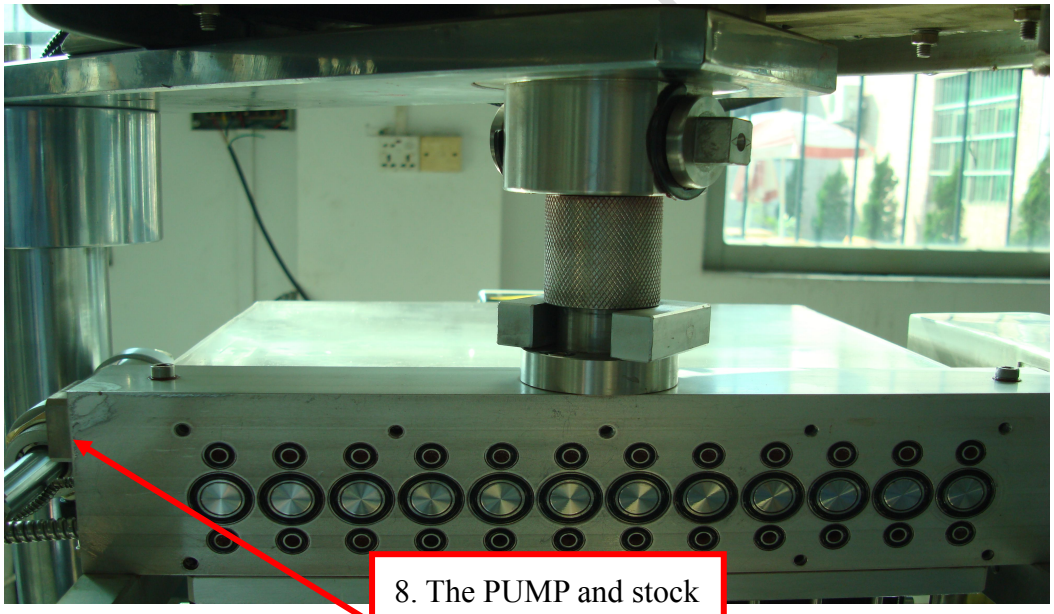


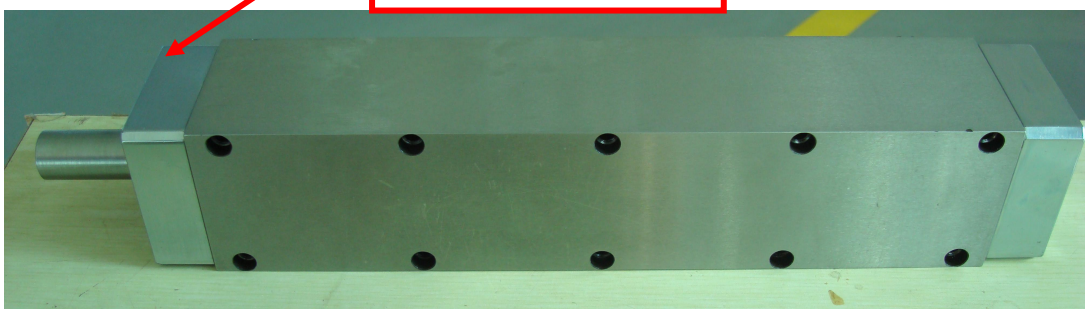

5. Assemble the blocks on both sides of the PUMP and tighten the screws. As shown below.

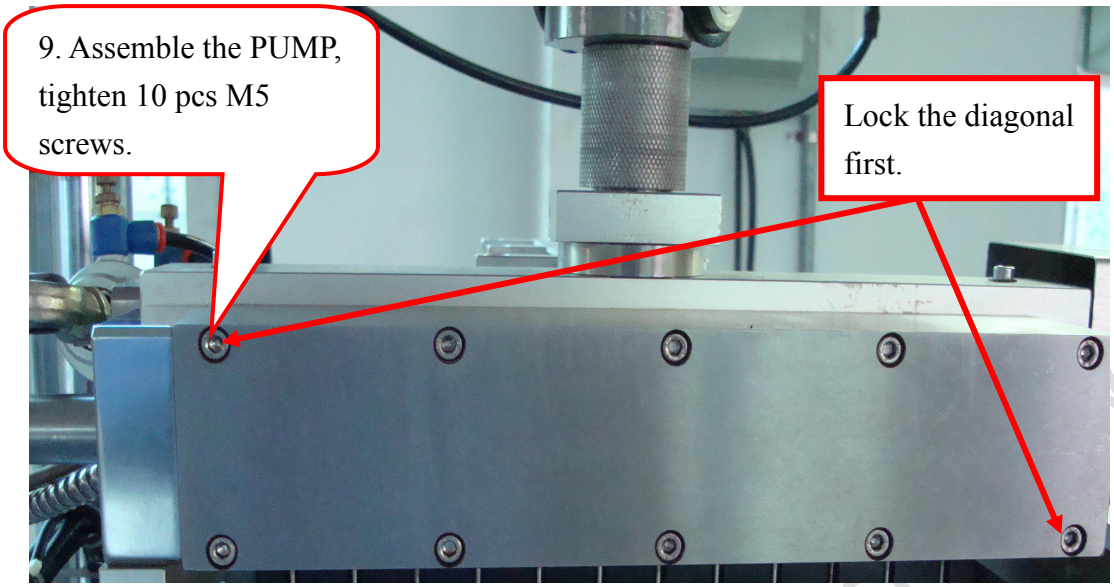



6. The marks on the switching shaft should be aligned with the marks (ON/OFF) on the block of PUMP, as shown.
OFF
ON


7. After cleaned the stock chest, please do remember to assemble the seal rings, otherwise, material leakage problem will be happened when filling.

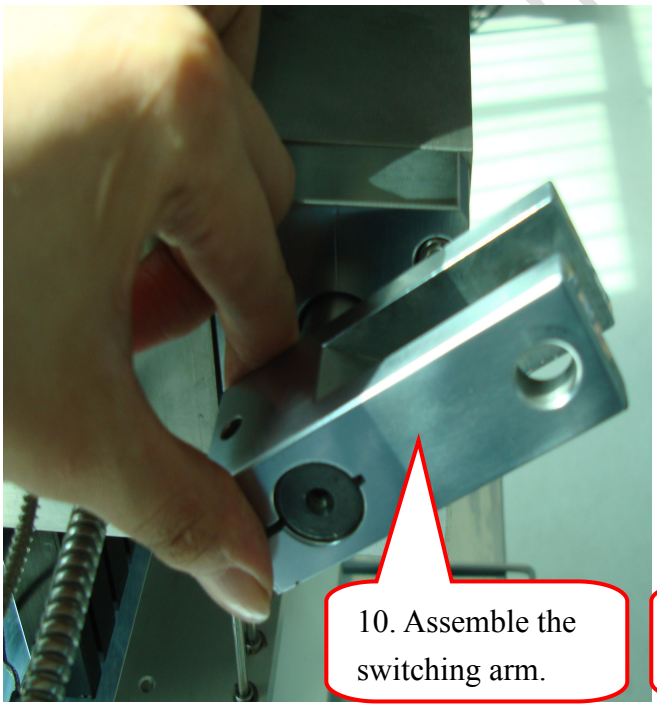


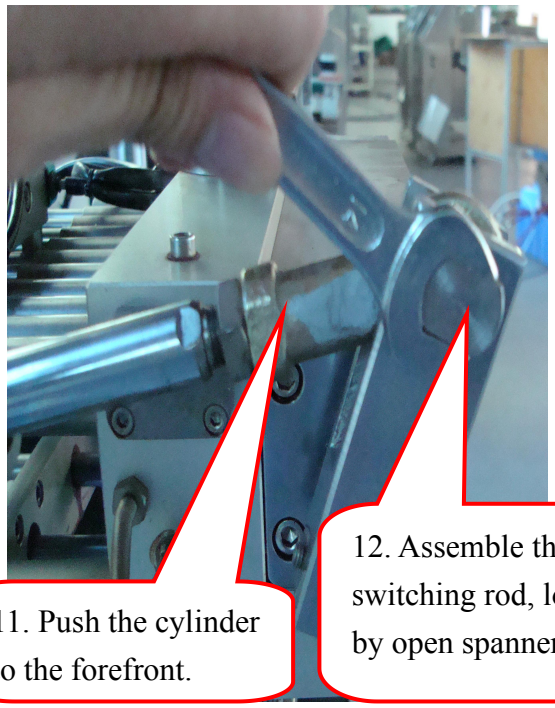

8. The PUMP and stock chest should be aligned when assembling.



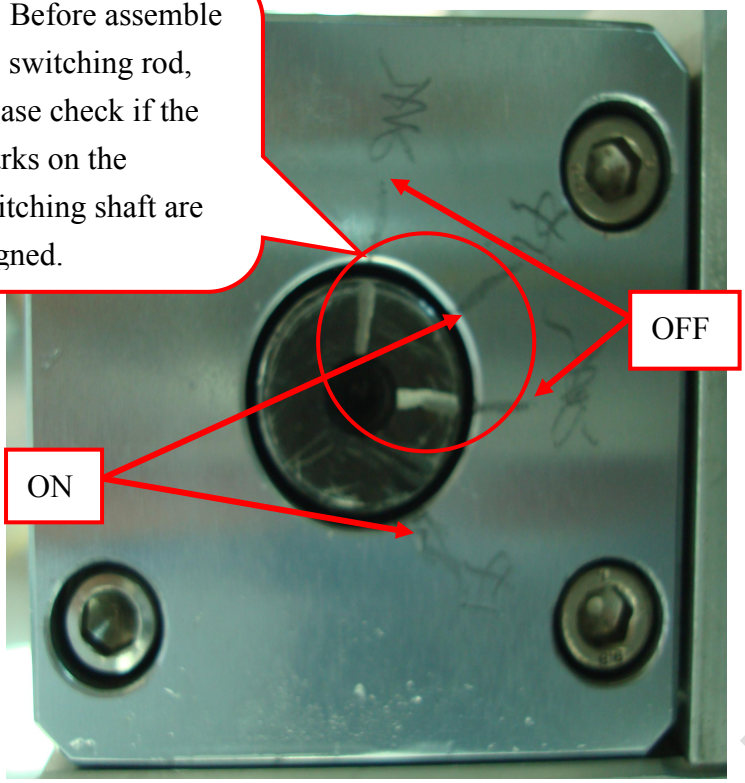
Notice: 1. When disassembling the PUMP, please notice the unscrewing order, lock the diagonals first, tighten the screws after stable. Do not lock it too tight to avoiding damaged when the PUMP thermal expansion and contraction.

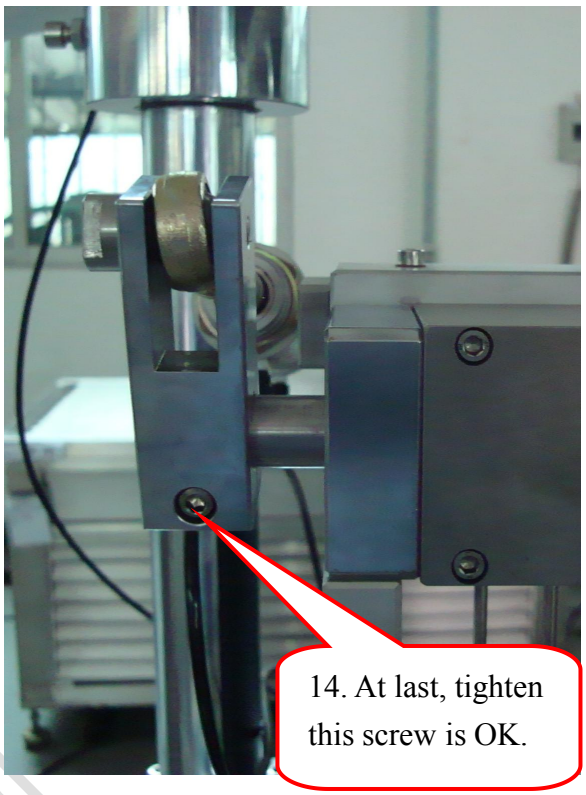
2. Notice to prevent the screw damaged.





13. Before assemble the switching rod, please check if the marks on the switching shaft are aligned.



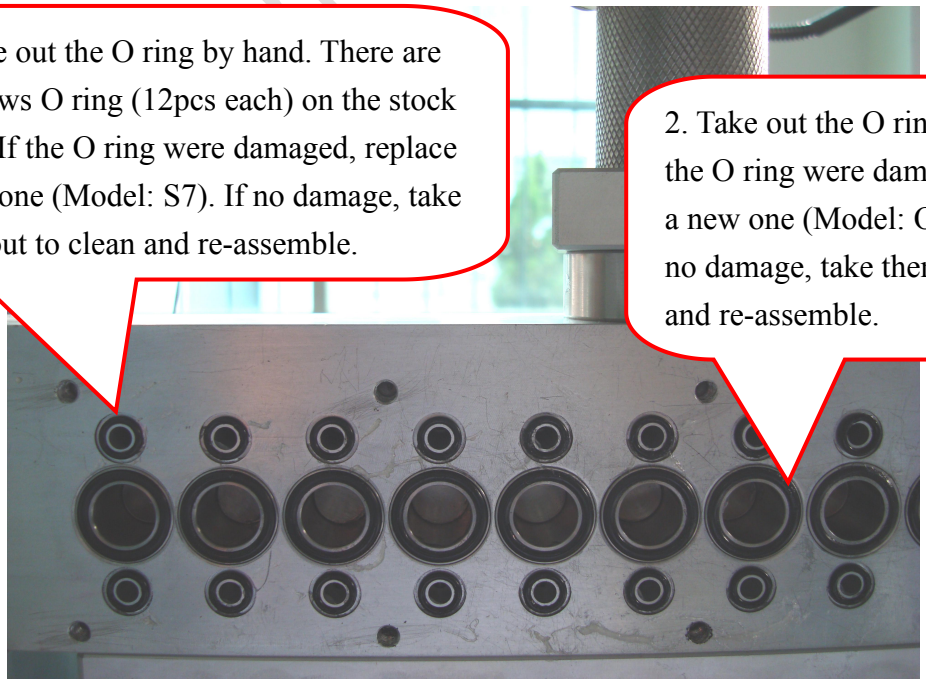


14. At last, tighten this screw is OK.

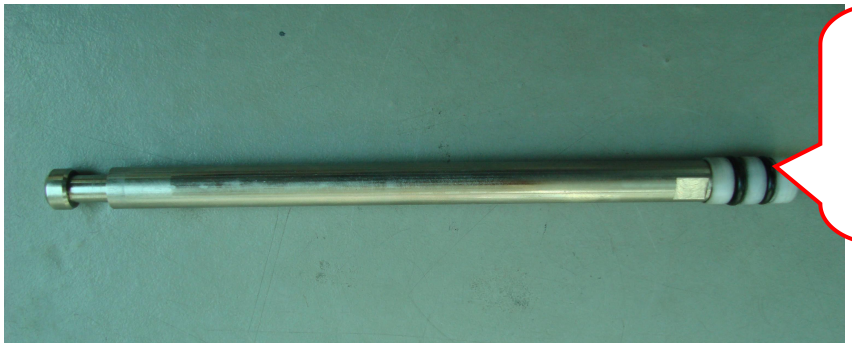
15. Consumables Replacement

1) How to replace the O ring on the stock chest?

1. Take out the O ring by hand. There are two rows O ring (12pcs each) on the stock chest. If the O ring were damaged, replace a new one (Model: S7). If no damage, take them out to clean and re-assemble.

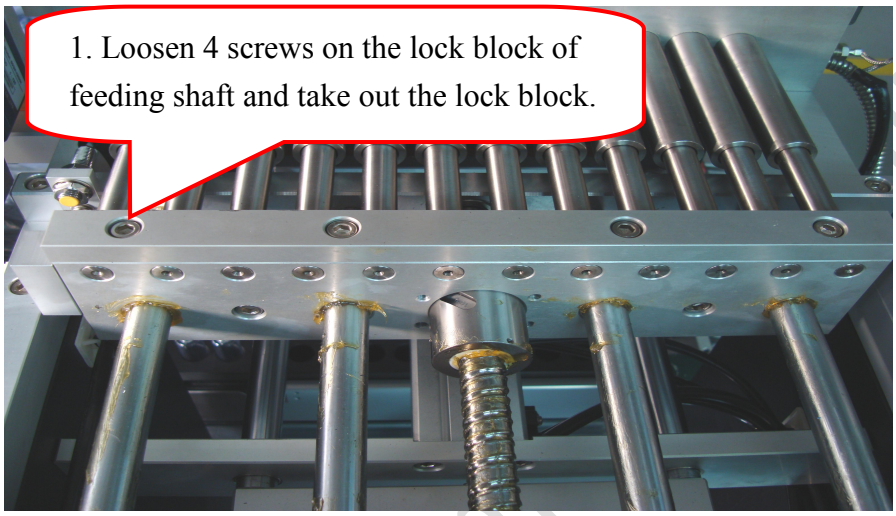


2. Take out the O ring by hand. If the O ring were damaged, replace a new one (Model: OP16VT). If no damage, take them out to clean and re-assemble.

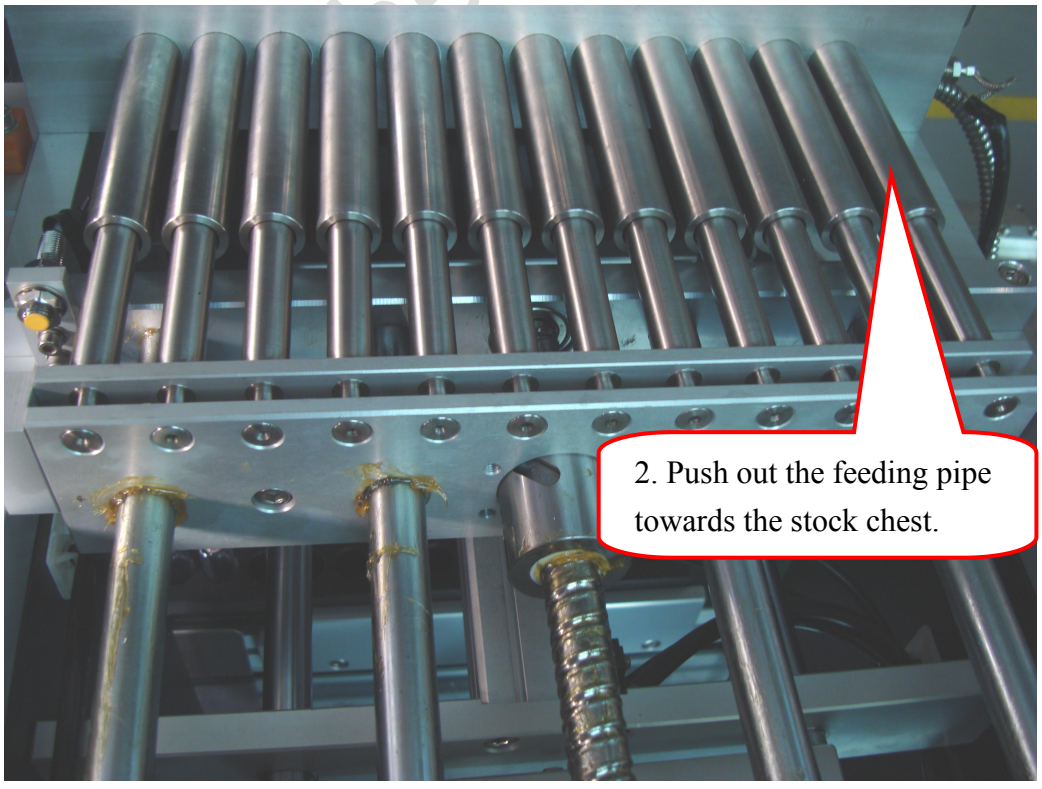


3. Take out the O ring (OP10A) from the feeding shaft, and replace a new one.

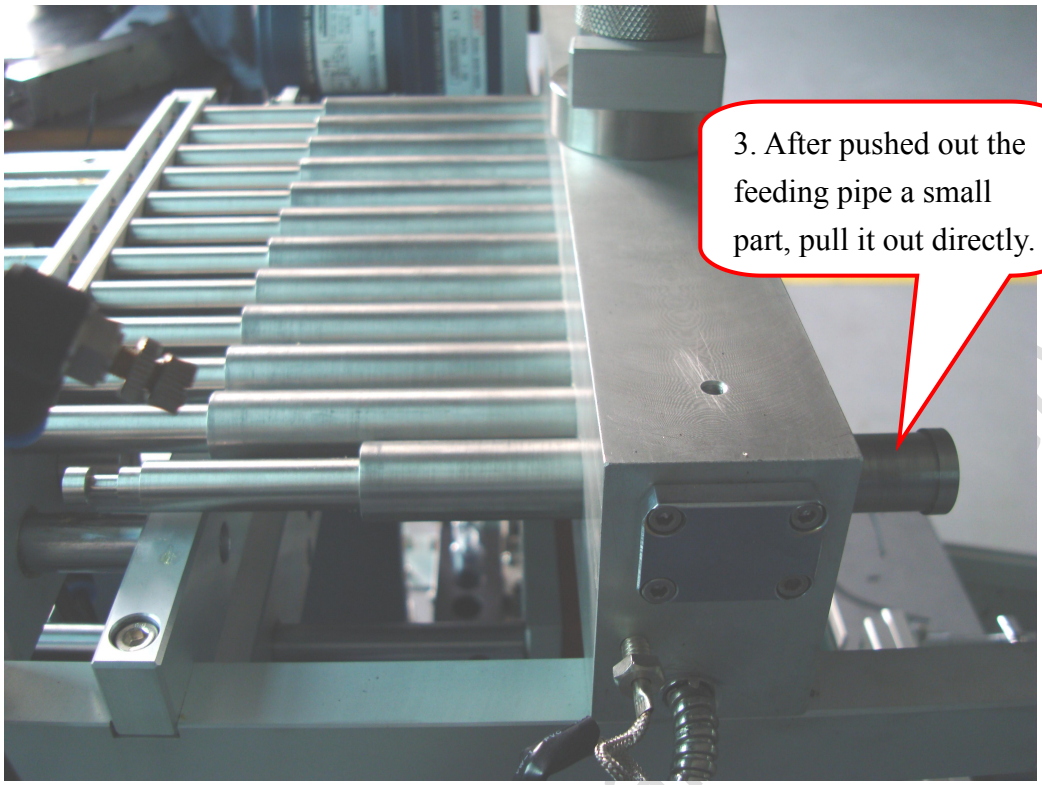
2) How to replace feeding pipe?

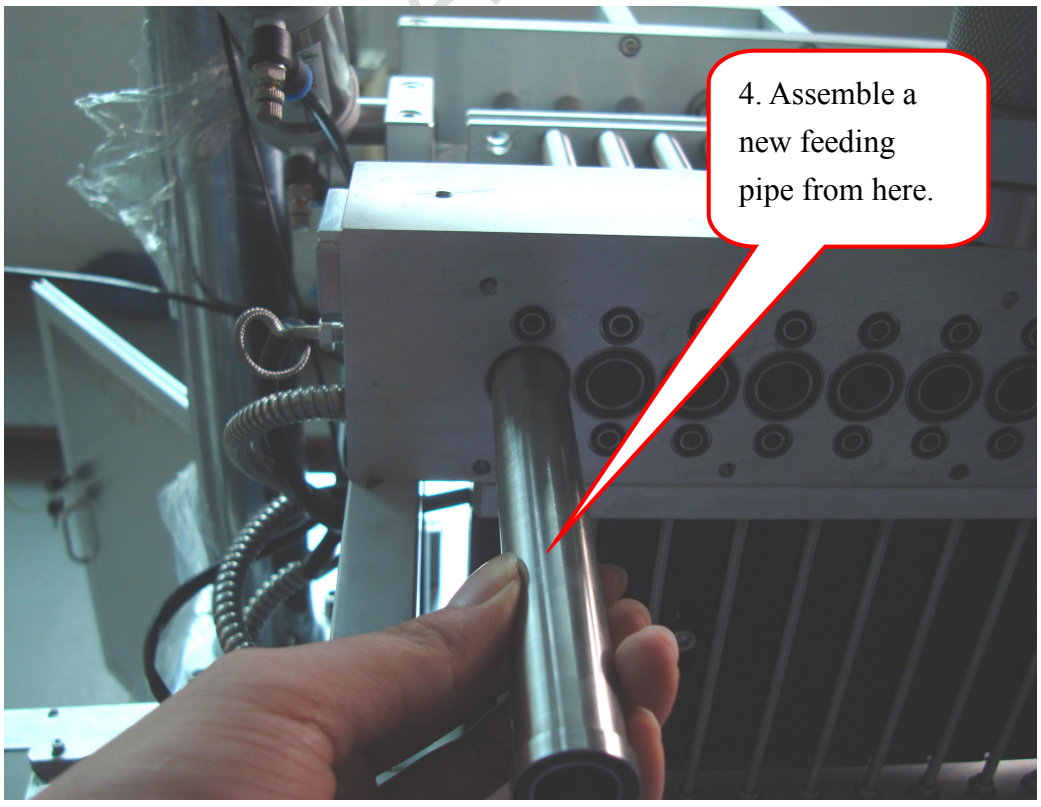


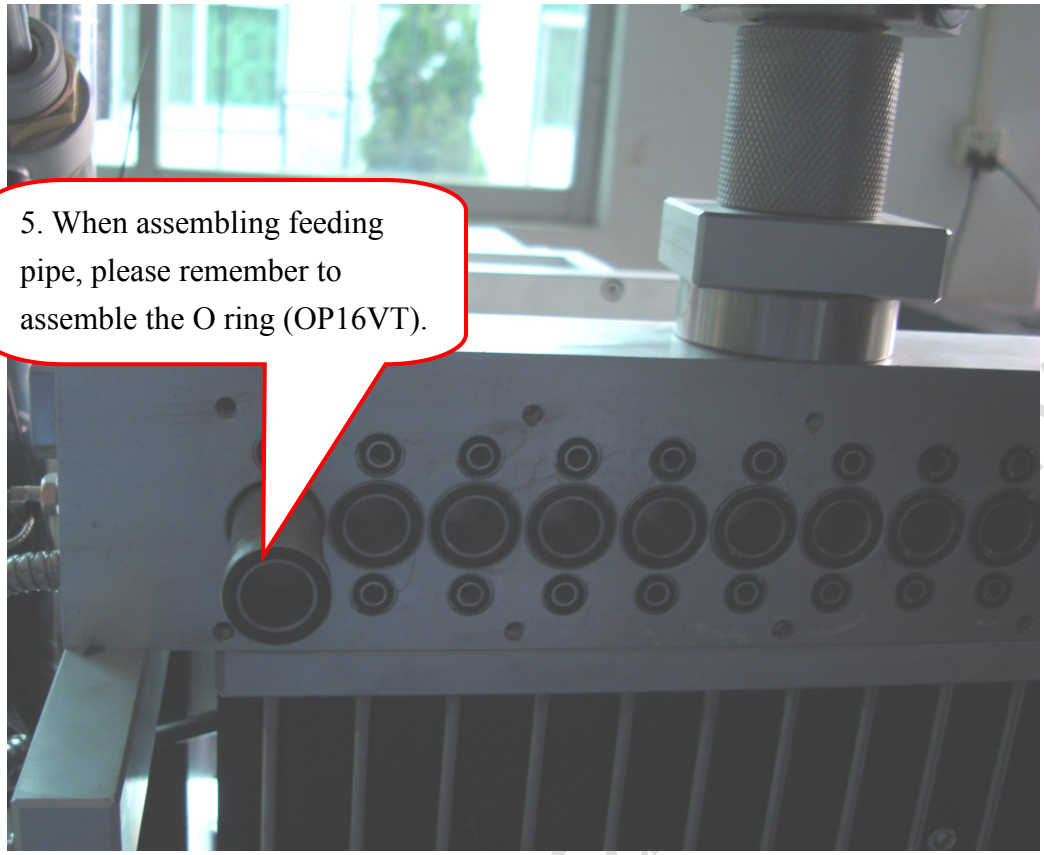
1. Loosen 4 screws on the lock block of feeding shaft and take out the lock block.

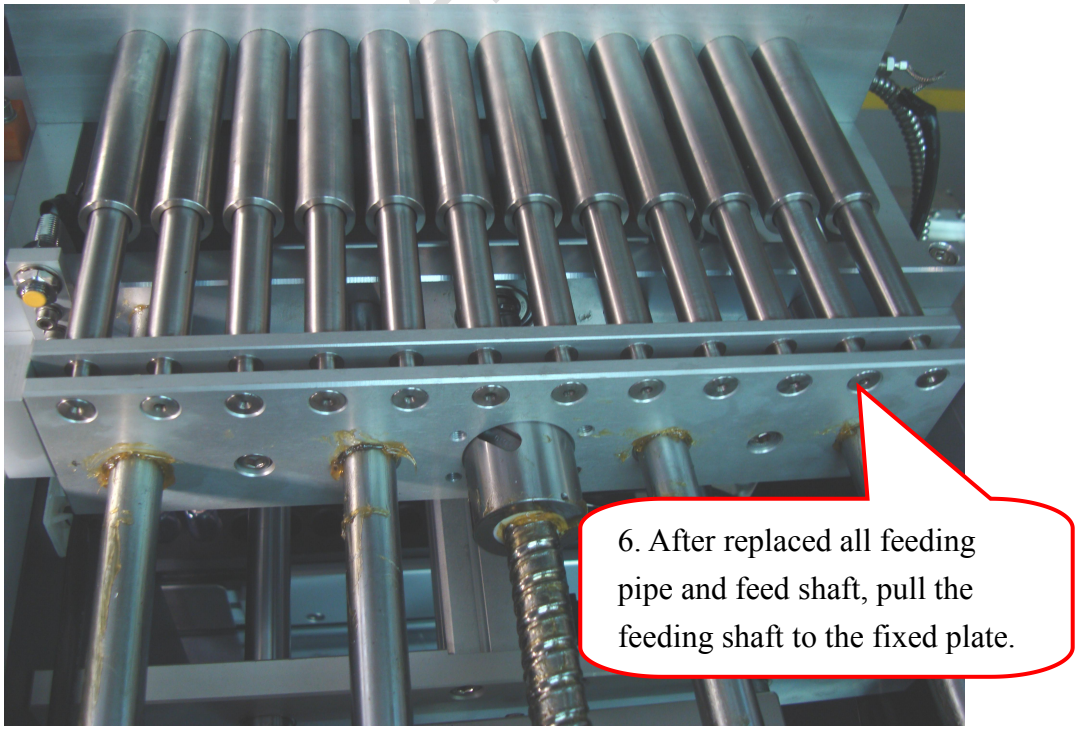


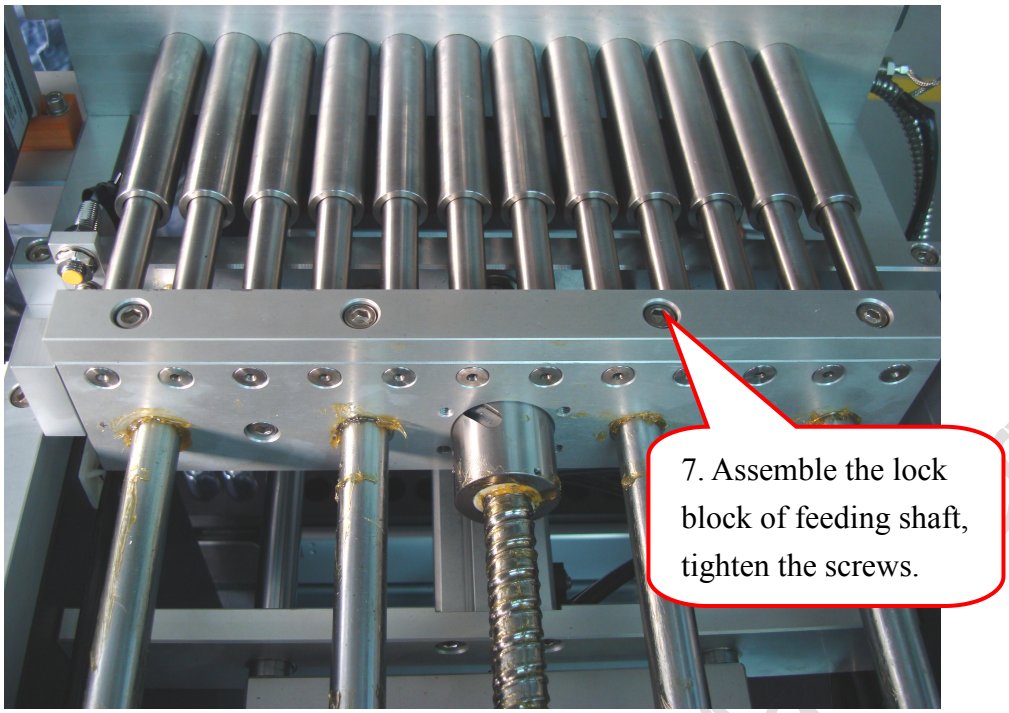
2. Push out the feeding pipe towards the stock chest.


3. After pushed out the feeding pipe a small part, pull it out directly.

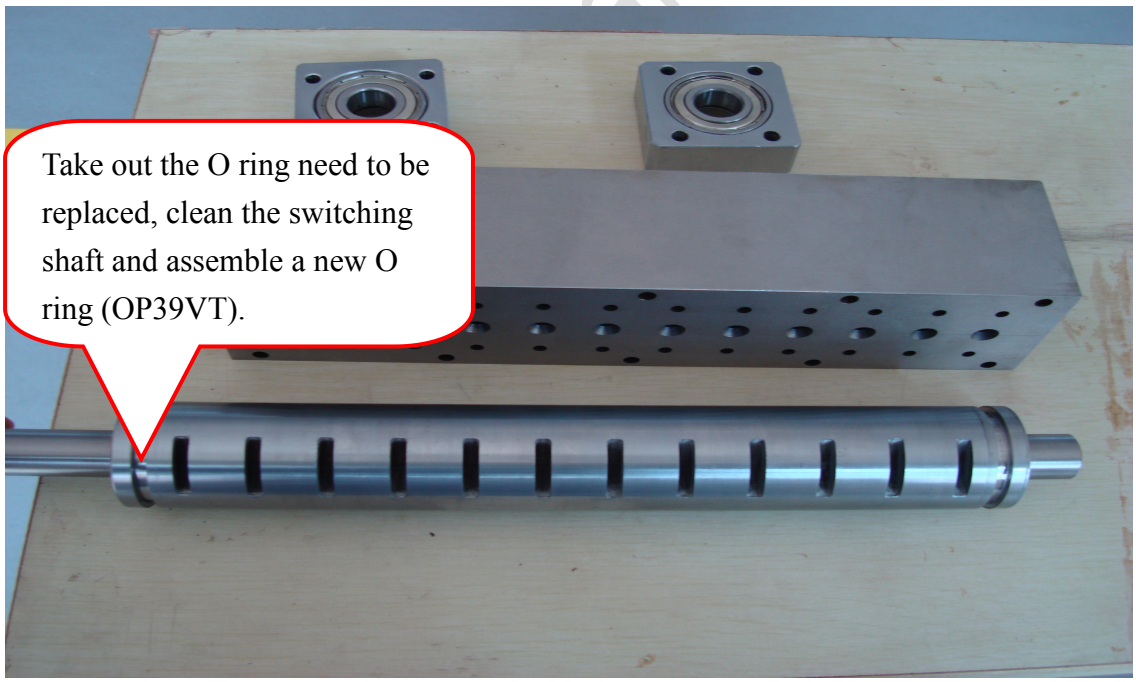

4. Assemble a new feeding pipe from here.


5. When assembling feeding pipe, please remember to assemble the O ring (OP16VT).


6. After replaced all feeding pipe and feed shaft, pull the feeding shaft to the fixed plate.

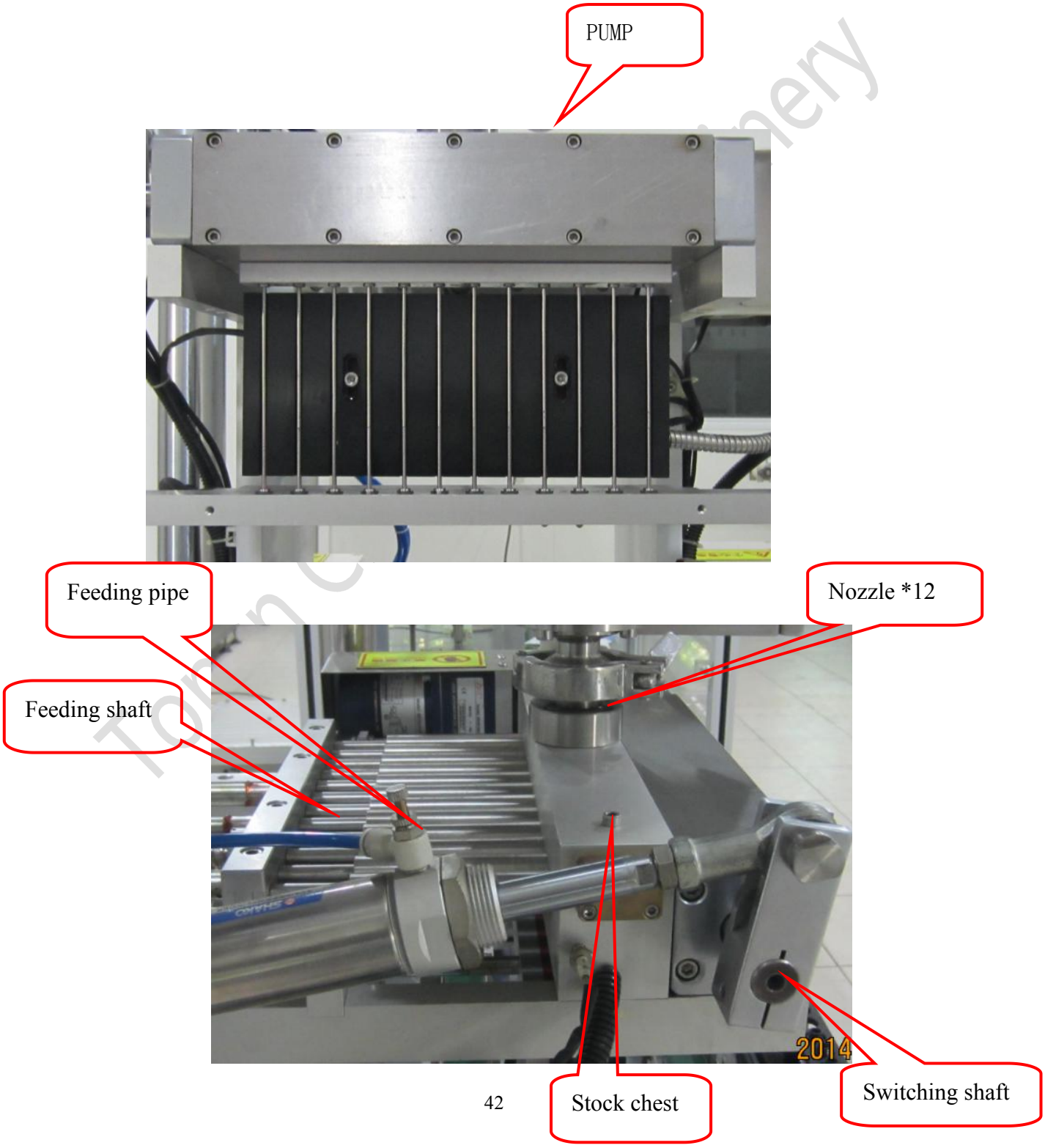


3) How to replace the O ring on the switching shaft?



16. How to fill mascara?

As the mascara is much different with lipstick, it is hard to clean. For filling mascara, directly change these 6 components: feeding pipe, feeding shaft, stock chest, PUMP, switching shaft and nozzle.



Disassembly and assembly method refer to section 4 and 5 of Chapter 15:

Section 4: How to assemble the stock chest, feeding pipe and feeding shaft

Section 5: How to assemble PUMP

17. Mechanical Fault Clearance

Simple Fault Clearance

(Supply 1 ψ 220V 50HZ power，4~6kg/cm^2 air pressure)

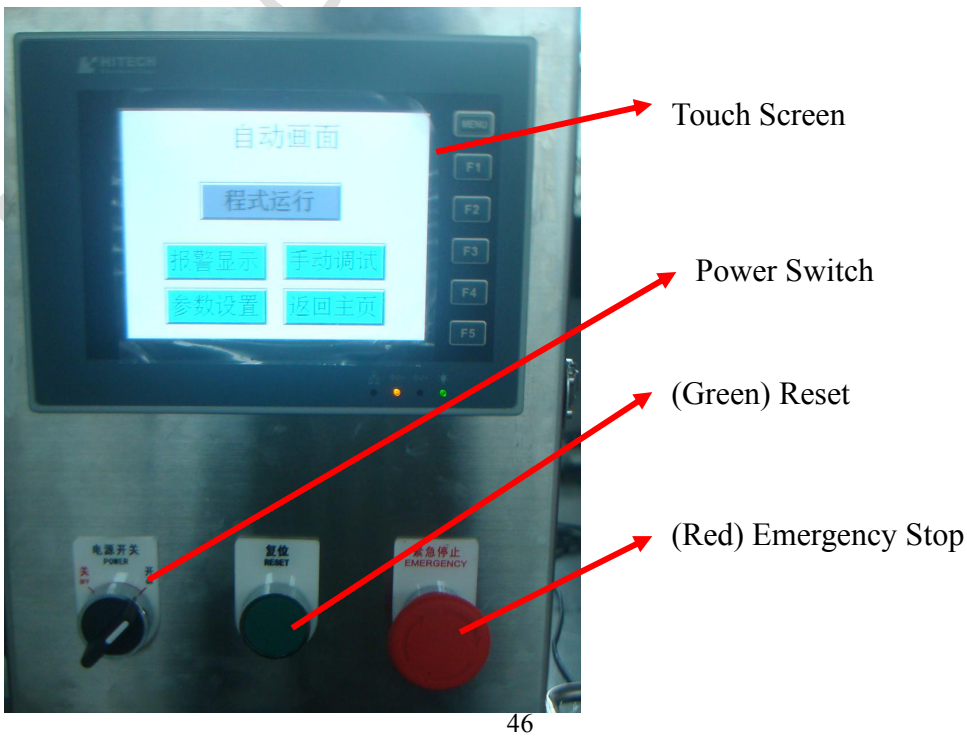
Fault	Cause	Clearance
1.No power supply	1. Check if the main switch was OFF. 2. If pressed emergency switch or not. 3. If the fuse of the major loop good or not.	1.Check the main switch. 2. If yes, rotate it up to the right. 3. Change a new one if burned out.
2. No power supply to the touch screen, but others have.	1. Open the door of the electric cabinet and check the power switch working condition. (Power light bright or not.) 2. Check if the power output reached about 24V or not. 3. DC power loop normal or not. Fuse broke circuit or not. 4. Check if the power connector of touch screen was opposite polarity. 5. If others are correct, but the	1. Check. 2.Use voltmeter to measure. 3. Recheck. 4. Connect a correct power polarity.

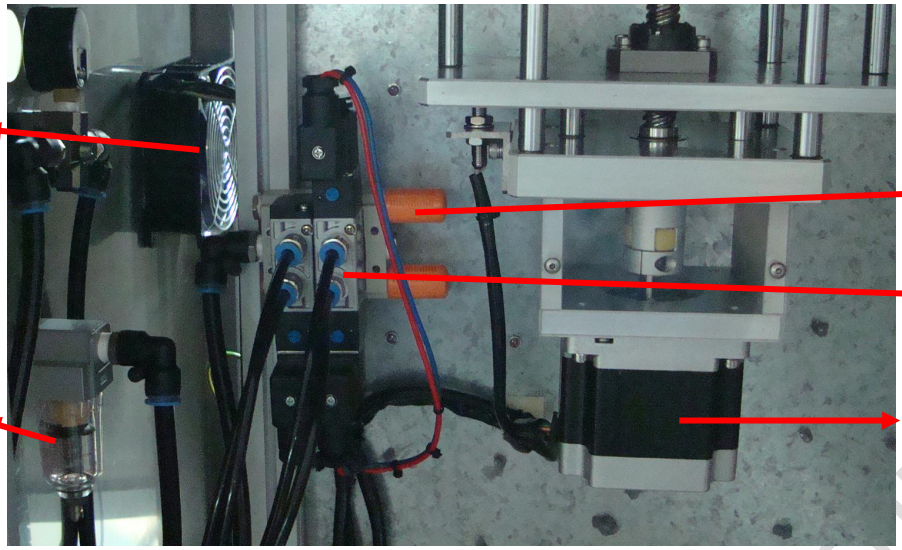
	touch screen is not electrified, please contact us.	
3. After selected AUTO, but no action, or stop at an action.	1. If the reed switch of the hotplate cylinder forth position and back position induced or not, the sensor of feeding motor forth position induced or not, the sensor of lifting motor down position induced or not. 2. If any error displayed on the touch screen. 3. If the parameter settings normal or not. It will wait for a long time if the parameter was too large. Some components could not reaction if the parameter was too small. 4. Check if the communication cable of touch screen loosened or broken off.	1. Check each sensor, please adjust it if not induced in place. 2. Please do according to the error display. 3. Set appropriate parameters. 4. Connect it if broken off.
4. No action for hotplate cylinder	1. Magnetic reed switch faulted or in a wrong position. 2. Solenoid valve coil faulted. 3. Fuse burned. 4. DC power supply faulted.	1. Replace or adjust inductive position. 2. Replace. 3. Replace. 4. Repair or replace.
5. Nozzle hotplate could not forward /backward	1. Through the Manual Forward and Manual Backward on the MANUAL page, check if the sensor light of cylinder forth position and back position brightened or not. 2. If the sensor of mold base poor contacted or did not contact. 3. Check if the solenoid valve normal worked or not. 4. If the air pressure was too low.	1. Check or adjust the sensor position. 2. Check. 3. Adjust the coil. 4. Adjust.

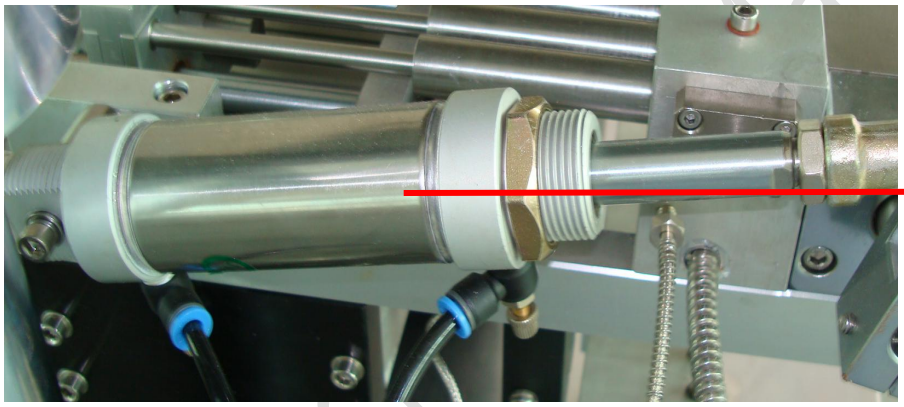
6. No heat for nozzle exit hotplate	1. Check if the temperature line and heating rod damaged or not. 2. Check if the relay that control nozzle exit hotplate normal worked or not. 3. Check if the temperature control normal worked or not.	1. Replace. 3.Check or replace. 3. Check or replace.
7. No action for lifting motor.	1. Check if the coupling fastened or not. 2. If the vertex modification pressed down or not. If no, and the auto lifting distance is 0, but no action. 3. If the lifting unit jammed or not.	1. Check or fasten. 2. Press down or adjust. 3. Check.
8. No action for feeding motor.	Please refer to lifting motor	Refer
9. No heat for stock chest or hopper.	1. Check if the heating power normal or not. 2. If the connecting plug loosen, or the wire broken circuit. 3. If the temperature control normal outputted or not. 4. If the hotplate or heating rod damaged or not.	1. Check. 2. Fasten or reconnect. 3. Check. 4.Replace if damaged.
10. No heat for nozzle hotplate.	1. Check if the heating power normal or not. 2. If the connecting plug loosen, or the wire broken circuit. 3. If the temperature control normal outputted or not. 4. Check if the temperature rod damaged or not.	1. Check. 2. Fasten or reconnect. 3. Check. 4. Replace if damaged.
11. When the motor	1. Check if the parameters setting normal or not. If the step motor	1. Check or adjust.

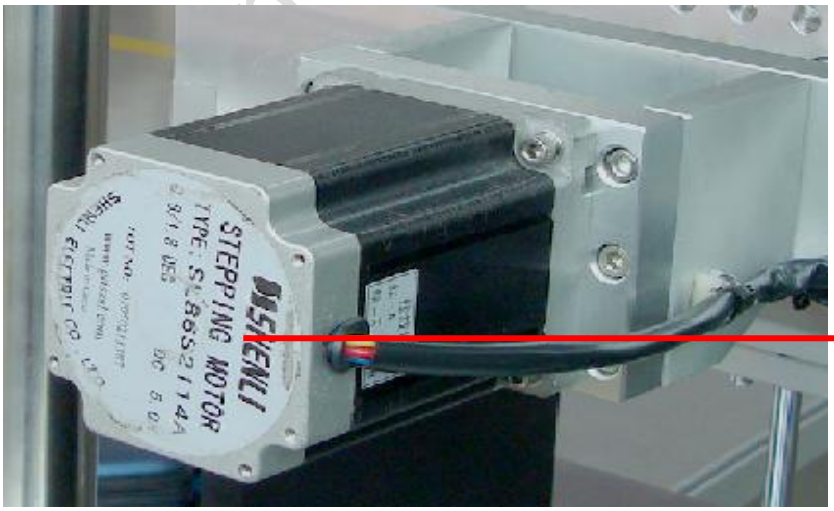
working, abnormal noise made.	made noise in low speed, appropriate adjust the drive current to reduce noise. 2. If the motor stepped out or slipped. If stepped out, please reconnect the electricity and test.	2. Retest or replace.
12. No action after started up the foot switch.(All switches are AUTO)	1. Check if the proximity reed switches homing or not. 2. System reset homing or not.	1. Adjust. 2. Relieve system reset button. (rotate to the right)
13. No action for switching.	1. Solenoid valve coil faulted. 2. Fuse burnt. 3. DC power supply faulted.	1. Replace. 2. Replace. 3. Repair or replace.
14. No action for feeding step motor.	1. Relay faulted. 2. Variable resistor faulted. 3. Feeding step motor faulted.	1. Replace. 2. Replace. 3. Replace.

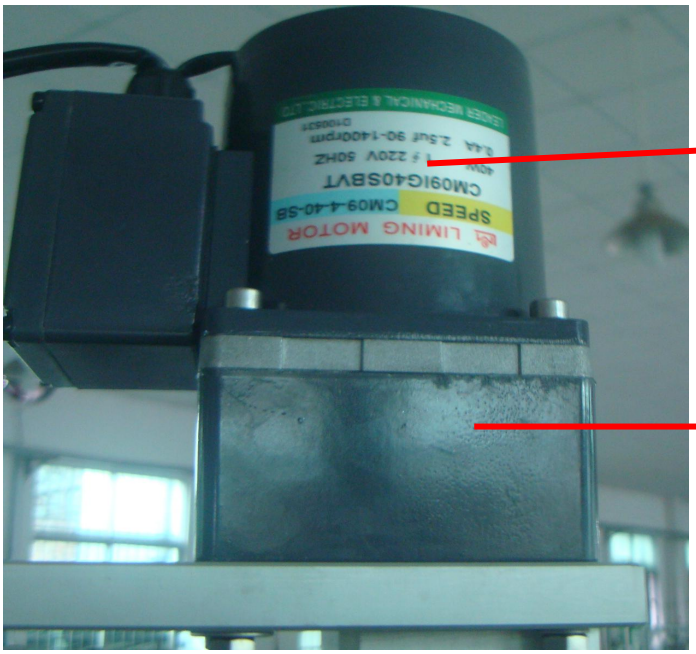
Enclosure 1: Photo Caption




Fan
Muffler
Solenoid Valve
Filter Cup
Mold Lifting Step Motor
SL86S278A


Switch Cylinder


STEPPING MOTOR
Feeding Step Motor
SL86S2114A

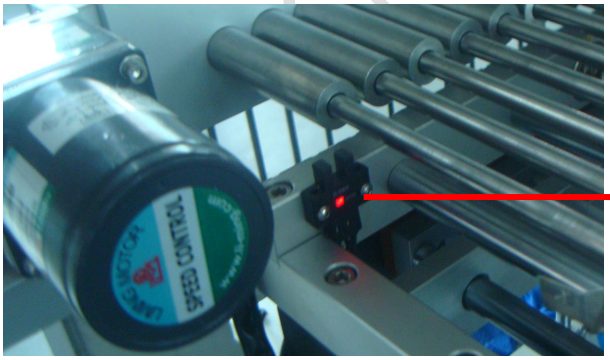


Hopper Stirring Motor
CM09IG40SBVT

Hopper Stirring Reducer
CG09B18S12

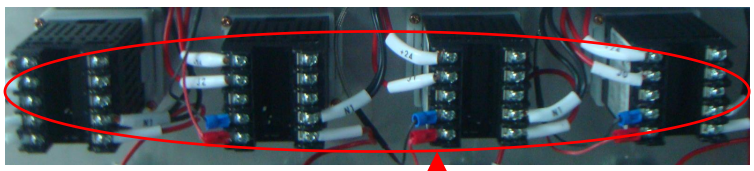
Feeding Stirring Motor
CM06IG6SB

Feeding Stirring Reducer
CG06B120SB



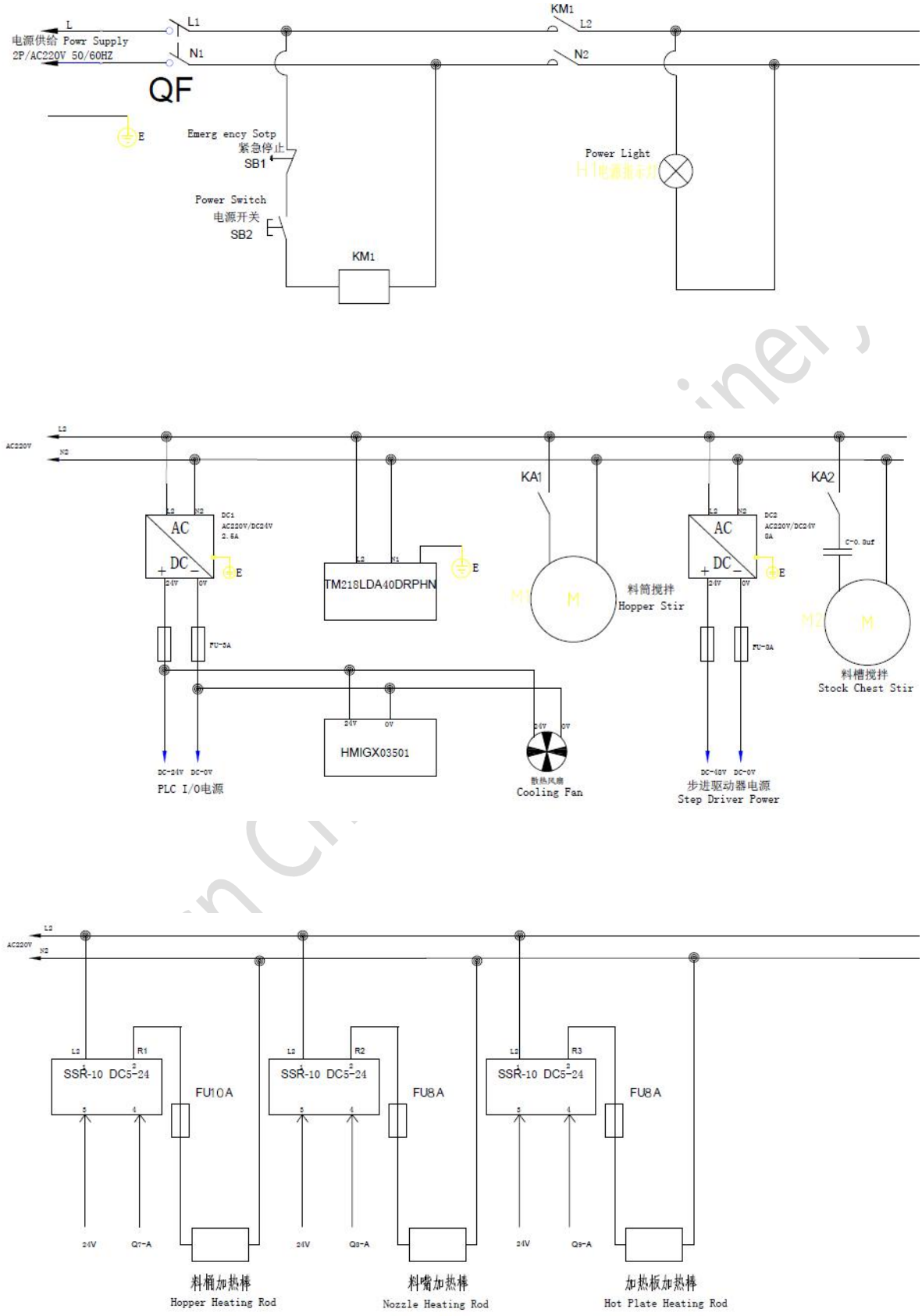
Sensor

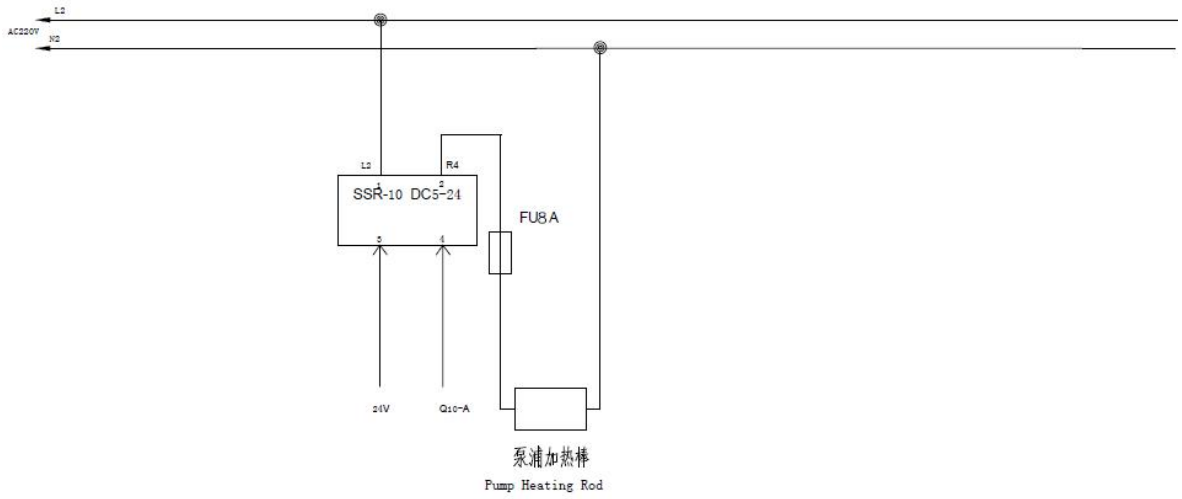
Motor driver

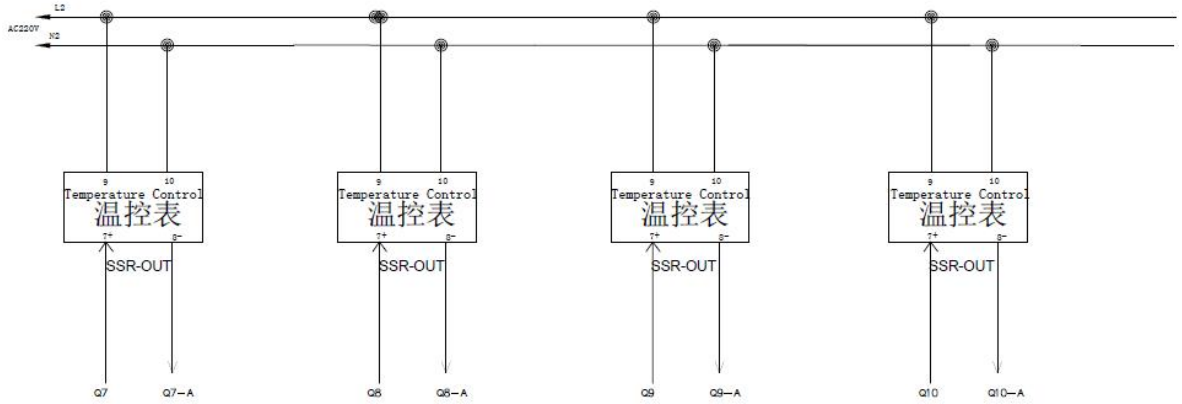


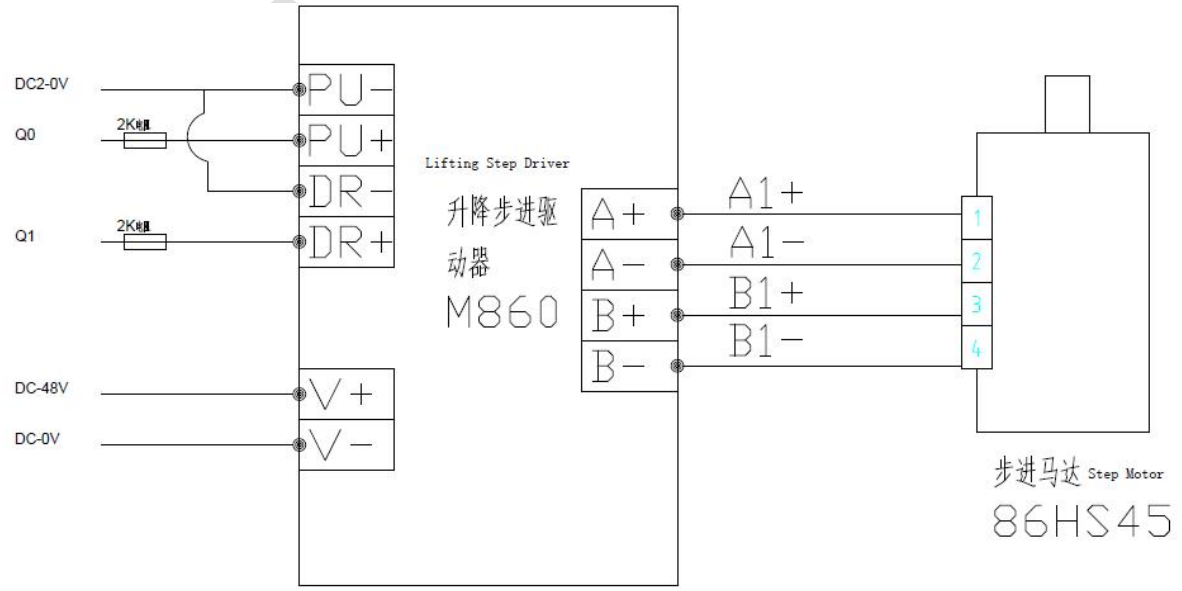
Motor governor

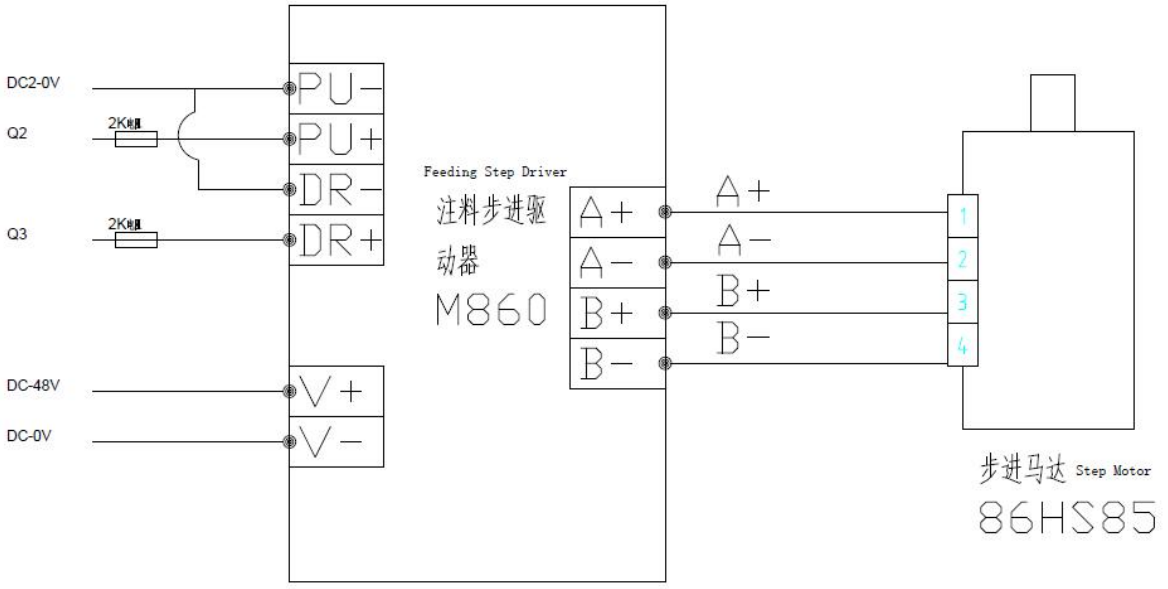
Enclosure 2: Electrical Control Diagram

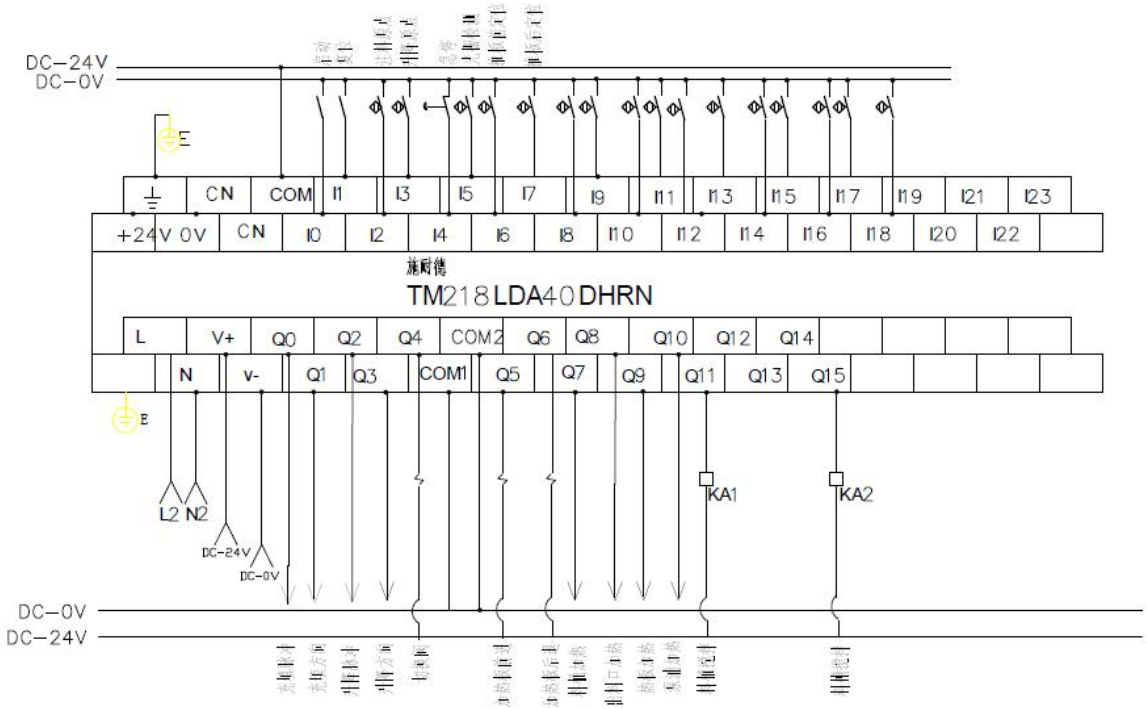



L2
AC220V
N2
L2
R4
SSR-10 DC5-24
FU8A
24V
Q10-A
泵浦加热棒
Pump Heating Rod


L2
AC220V
N2
Temperature Control
温控表
SSR-OUT
Q7
Q7-A
Q8
Q8-A
Q9
Q9-A
Q10
Q10-A


DC2-0V
Q0
2K电阻
Q1
2K电阻
DC-48V
DC-0V
PU-
PU+
DR-
DR+
V+
V-
Lifting Step Driver
升降步进驱动器
M860
A+
A-
B+
B-
A1+
A1-
B1+
B1-
1
2
3
4
步进马达 Step Motor
86HS45


DC2-0V
Q2
2K电阻
Q3
2K电阻
PU-
PU+
DR-
DR+
DC-48V
DC-0V
V+
V-
Feeding Step Driver
注料步进驱
动器
M860
A+
A-
B+
B-
A+
A-
B+
B-
1
2
3
4
步进马达 Step Motor
86HS85


DC-24V
DC-0V
E
CN
COM
I1
I3
I5
I7
I9
I11
I13
I15
I17
I19
I21
I23
+24V
0V
CN
I0
I2
I4
I6
I8
I10
I12
I14
I16
I18
I20
I22
旋耐德
TM218LDA40DHRN
L
V+
Q0
Q2
Q4
COM2
Q6
Q8
Q10
Q12
Q14
N
V-
Q1
Q3
COM1
Q5
Q7
Q9
Q11
Q13
Q15
E
L2
N2
DC-24V
DC-0V
KA1
KA2
DC-0V
DC-24V

PLC I/O	I0	Start	Q5	Forward Cylinder
	I1	Reset	Q6	Backward Cylinder
	I2	Feeding Drigin	Q7	Hopper Heating
	I3	Lifting Shaft Origin	Q8	Outlet Heating
	I4	Stop	Q9	Hotplate Heating
	I5	Safty Light CurtainDetection	Q10	Pump Heating
	I6	Push Board Forth Position	Q11	Hopper Stir
	I7	Push Board Back Position	Q15	Stock Chest Stir
	Q0	Lifting Shaft Pulse		
	Q1	Lifting Shaft Direction		
	Q2	Fluing Shaft Pulse		
	Q3	Fiuing Shaft Direction		
	Q4	Switch Valve		