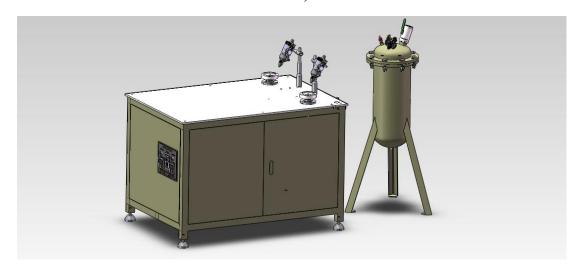


## **INSTRUCTION MANUAL**

# **MODEL: PLMB-1**Sealed Plate Gluing Machine

(PLEASE READ THIS MANUAL CAREFULLY BEFORE USING

THIS MANCHINE, THANK YOU)



PLM FILTER SOLUTION

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#### Part I: Foreword

Welcome to use PLMB-1 Sealed Plate Gluing Machine produced by PLM FILTER SOLUTION.

Our company is one of the earliest factory to make filter equipment in China. After 2 years' development, now we have already invented more than 5 categories and nearly 7 kinds of filter equipment, filtration equipment and detection equipment. We produce 8 sets of filter equipment and 8 sets of filtration equipment every year. Most of them have passed CE certification. Our products are exported to Europe and the United States and Southeast Asia and win the unanimous praise of customer. We own a capable of design and producing technician team, and build up a high quality after-sale service. Our equipments will fully support your business by it's high quality. Your satisfactory is always our goal..

PLMB-1 Sealed Plate Gluing Machine is a kind of equipment of rotary filter, dense plate and glue injection developed by our technician after many years' exploration. The body of the device is light and durable, precise structure, convenient maintenance equipment; double glue glue injection head at the same time, improve work efficiency; the glue injection head design compact and reasonable structure, good sealing performance; glue injection time is controlled by time relay to ensure the injection quantity is not too much nor too little; the motor speed by the governor control, in order to adapt to the needs of different production conditions; consistent recognition and praise the equipment and won the overwhelming majority of users.

Only the correct operation can bring the best performance and produce high quality product. Please read this manual thoroughly and fully understand, make sure the machine has run under the best status, and get the best result. Please also pay attention to the safety during operation.

When you read this manual, you are already our customer. We will offer you the technical support, please find the following contact information:

TEL: 008615131850885

Email: info@mfiltersolution.com Website: www.mfiltersolution.com

Company Sealed Plate Gluing Machine model rules as follow:

PLMB-X

PLMB: Stands for PLM FILTER SOLUTION company Sealed Plate Gluing Machine series products

X: Stands for the quantity of stations

For example: PLMB-1 stands for 2 stations Sealed Plate Gluing Machine Please note that the specifications of the delivered machines are sometimes different from those written in this manual due to design change or other special reasons.

If any product problem caused by machine itself or anywhere needs to improve, please kindly let us know, so that we can correct it.

We also can make according to customer's special demand.

If there is any problem caused by inappropriate operation or changing any machine spare parts, we will not take any responsibility.

## **Part II:Safety Requirements**

#### I.General Introduction Of Machine

PLMB-1 Sealed Plate Gluing Machine is suitable for the glue filling process of rotary filter.

PLMB-1 Sealed Plate Gluing Machine is composed of three parts: injection head mechanism, workpiece support mechanism and glue barrel.

The body of the device is light and durable, precise structure, convenient maintenance equipment; double glue glue injection head at the same time, improve work efficiency; the glue injection head design compact and reasonable structure, good sealing performance; glue injection time is controlled by time relay to ensure the injection quantity is not too much nor too little; the motor speed by the governor control, in order to adapt to the needs of different production conditions; consistent recognition and praise the equipment and won the overwhelming majority of users.

PLMB-1 Sealed Plate Gluing Machine with power and compressed air as power source.

#### **■.**Safety Rules of Operating Machine

- 1. Safety Precautions:
  - 1.1 Read and understand all the contents of this manual;
- 1.2 Before starting the machine, it is necessary to make sure there are no unsafe factors around it and close the protective cover;
  - 1.3 The power supply shall be cut off regardless of the maintenance or adjustment

of the machine. Do not adjust the machine on power up;

- 1.4 Power should be switched off when the power is out or temporarily out of the machine:
- 1.5 When the machine is in working condition, the movable door and protective cover on the machine can not be opened;
- 1.6 Electrical equipment should be operated by electrical technicians. And after the power off, wait 15 seconds to repair to prevent the residual voltage;
  - 1.7 No smoking in the workplace, no fireworks.

#### 2. Safety Sign:

- 2.1 Safety signs against accidents have been posted on the machine where necessary. Be sure to observe the precautions in the sign;
  - 2.2 Classification of safety signs: danger, warning, attention.
  - 2.3 The meaning of safety signs is as follows:

Danger: if you do not comply with the requirement, there is a possibility of death:

Warning: if you do not comply with the requirement, you may be seriously injured;

Note: if you do not comply with this requirement, there is a possibility of injury or damage to the machine.

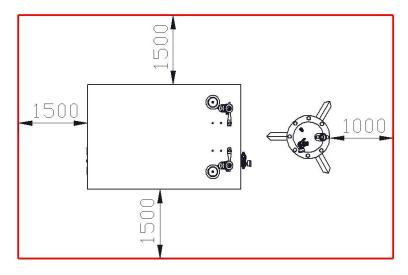
#### 3. Operator Safety Rules:

- 3.1 The operation and maintenance of a machine must be performed by professional trained or trained personnel;
- 3.2 In order to avoid the movement of long hair caught in the machine, please make sure that your hair is covered in the work cap;
- 3.3 When cleaning the machine, please cut off the machine power. Do not use solvent to wipe the machine parts. Please clean the machine parts with neutral soap. Please use 10 oil to clean the machine metal parts;
- 3.4 If you find any unsafe factors that affect the boot before starting, please don't force it to boot. After the unsafe factors are excluded, you can turn on the machine. During the operation of the machine, if you hear abnormal sound, should immediately shut down, notify the maintenance personnel to find the reasons, troubleshooting can be re boot.
- 3.5 Please don't put your hand on the moving parts while the machine is running, so as not to hurt your hands;
- 3.6 No irrelevant items can be placed on the machine table and on all platforms to prevent slipping, wounding, or impeding the normal operation of the machine;

#### 4, Repairman Safety Rules:

- 4.1 Shut down and turn off the power supply when repairing or cleaning the machine;
- 4.2 Please make sure that the cover, cover plate and so on are removed after repair, and then turn on:
- 4.3 When replacing the electrical parts, the power must be cut off and the same parts or parts of the same specifications must be used;

#### 5. Operator Standing Position:



#### 6, Machine Install Safety Rules:

- 6.1 Install the floor to level;
- 6.2 The power supply line should match the power of the machine, and the power cord should be fixed;
- 6.3 The machine must be grounded protection, the ground wire can be attached to the foot mounting bolt, and the zero line can not be ground wire;
- 6.4 Please ensure that the road in the installation location is unobstructed and that more than a ton of forklifts are ready for handling the machines;
- 6.5 Machine installation location on the right, from the wall should be no less than one meter, left and front and back should be no less than 1.5 meters;
  - 6.6 The machine is fixed with anchor bolts, and it can be padded on the floor;
- 6.7 The machine is powered by 220V/50Hz and installed with an adequate safety device and switch in front of the power supply outside the machine.

## Part III: Specification and Installation

#### **I**. Machine Nameplate:

PLMB-1 Sealed Plate Gluing Machine is produced by PLM FILTER SOLUTION. It is attached to our glue machine with our nameplate.

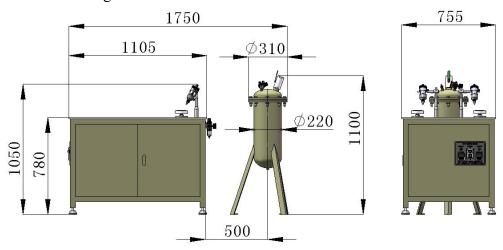
#### **■.**PLMB-1 Technical Parameters:

Production capacity:	20pcs/minute
Work speed:	adjustable
Workpiece diameter:	Arbitrarily
Motor power:	90W
Barrel capacity:	15kg
Injection volume:	controlled
Injection time:	adjustable
Gas pressure:	0.3MPa

Supply voltage: 220V/50Hz

#### **Ⅲ.**Machine Outline And Mounting Dimensions:

Host L×W×H 1105mm×755mm×1050mm Latex collecting bucket D×H Ø 300mm×1100mm



#### **IV.** Machine Installation:

The machine shall be located at the right place for work or in the assembly line of the filter assembly;

In the workshop, according to the installation location, draw the equipment installation center line:

After removing the packing box and the dustproof film, use the fork lift machine to put the machine in the fixed position or the production line installation position, the right side should be not less than one meter from the wall surface, the left side and the front back should be not less than 1.5 meters.

Fix the machine and calibrate the machine.

The place where the machine is located should be level, clean and well ventilated. Do not place the machine in a high temperature and dust environment;

#### **V.**Access Power:

The input line of the power line should match the power of the machine. The power supply is powered by 220V/50Hz. Please check whether the power supply is in accordance with the specifications.

The machine must be grounded protection. The ground wire can be attached to the mounting bolt of the foot.

Please check that the cables are connected before use, and whether the emergency buttons are reset, whether the door is closed or not.

#### **VI.**Access Gas Source:

When accessing the gas source, please check whether the air source meets the

requirements of the machine. The gas source used by the machine is 0.3MPa air pressure. If it is in conformity with the requirement, it can be connected

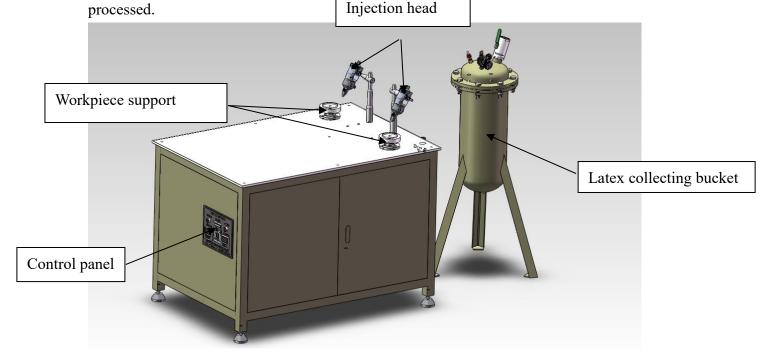
## Part IV: Operation And Adjustment Of Machine

#### I. The Basic Principle And Process Flow:

PLMB-1 Sealed Plate Gluing Machine uses air pressure to glue the sealing glue from the glue barrel to the glue injection head, and then pour it into the workpiece by the glue injection head.

According to the diameter and shape of the workpiece, replace the workpiece support (nylon disk, according to work needs to adjust the motor speed and set glue injection time, so that the two matching, adjust the gum mouth aligned workpiece.

After the machine is adjusted, the power switch is switched on, the power indicator light is turned on, and the rotating motor knob is turned on to make the knob open. To work on the workpiece supporting glue (nylon plate, step motor starting pedal switch and injecting start pedal switch, while rotating the workpiece glue injection head injection; injection time, injection head stop glue injection, at the same time, the motor stops rotating, out of the workpiece, a complete plastic injection



#### **II.**Machine Operation:

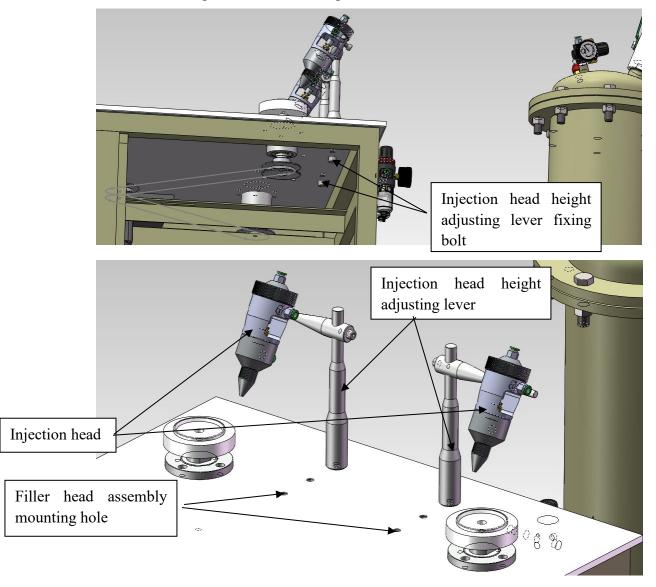
#### 1. Operation Process:

- 1.1 Before use, the machine must be connected with the power supply and air source. The supply voltage is 220V/50Hz, the air pressure is not less than 0.3MPa, otherwise it can not meet the needs of the machine.
- 1.2 Before starting the glue injection, add proper sealant to the glue barrel, adjust the pressure of the glue tank, and keep the pressure of the glue tank not more than

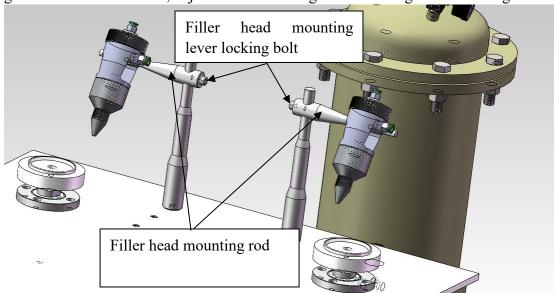
- 0.3MPa, so as to avoid unnecessary pressure and unnecessary danger.
- 1.3 According to the diameter and shape of the workpiece, replace the workpiece support (nylon disk), according to work needs to adjust the motor speed and set glue injection time, so that the two matching, adjust the gum mouth aligned workpiece
- 1.4 After the machine is adjusted, the power switch is switched on, the power indicator light is turned on, and the rotating motor knob is turned on to make the knob open. To work on the workpiece supporting glue (nylon plate), step motor starting pedal switch and injecting start pedal switch, while rotating the workpiece glue injection head injection; injection time, injection head stop glue injection, at the same time, the motor stops rotating, out of the workpiece, a complete plastic injection processed.

#### 2. Machine Adjustment:

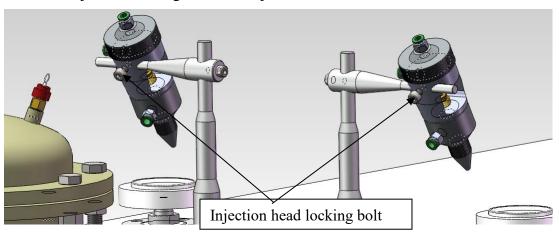
- 2.1 Injection head adjustment:
- 1) Adjust the position of the glue injection head assembly and fixing bolt away rubber injection head height adjusting rod, according to the diameter of the workpiece size or work requirements, the glue injection head assembly is installed on the second or third mounting holes on the locking bolt.



2) Adjust the height of the glue injection head, loosen the locking bolt on the glue head installation rod, adjust the rear locking bolt according to the working needs.

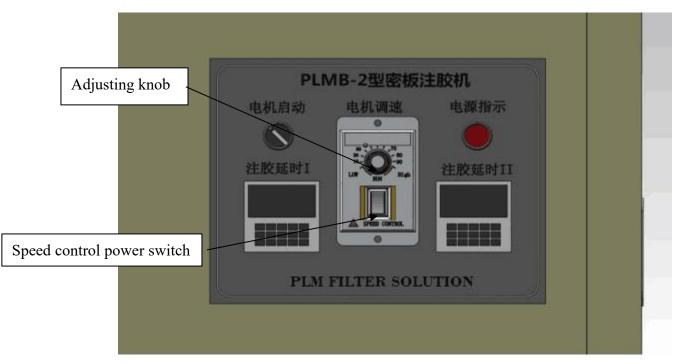


3) Adjust the angle of the glue head, loosen the glue head, lock the bolt, adjust the angle of the glue head according to the work need, the effect of injecting glue will be better, adjust the locking bolt after adjustment.



#### 2.2 Adjustment of work speed:

Clockwise rotation of the governor knob, the work speed up; counterclockwise rotation of the governor knob, slow down the work speed.



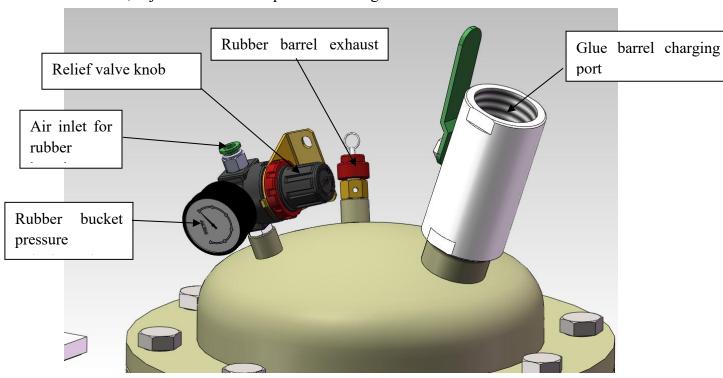
#### 2.3 Injection time setting of glue injection head:

Two glue glue injection head time are controlled by time relay respectively, when to set the glue injection head I glue injection time, injection delay time relay set corresponding to the I, when the middle position of the letter "S" is displayed, can set the injection time range for 0.01 seconds ~99.99 seconds; when the letters show "m", set the glue injection time range for the second ~99 minutes and 99 seconds; when the letter "H" is displayed, can set the dosing time range is 1 ~99 hours and 99 minutes; glue injection time injection head II the same settings; the operational time of the relay time relay instructions.



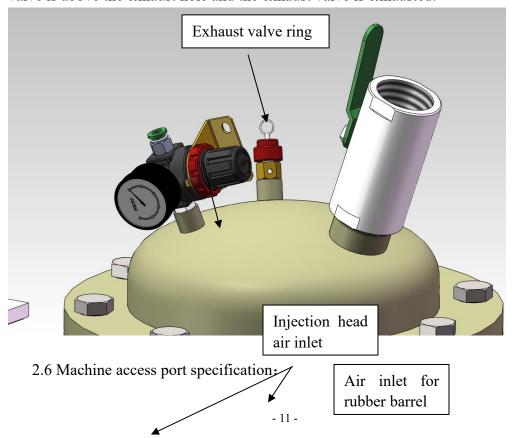
2.4 Adjustment of injection volume of injection head:

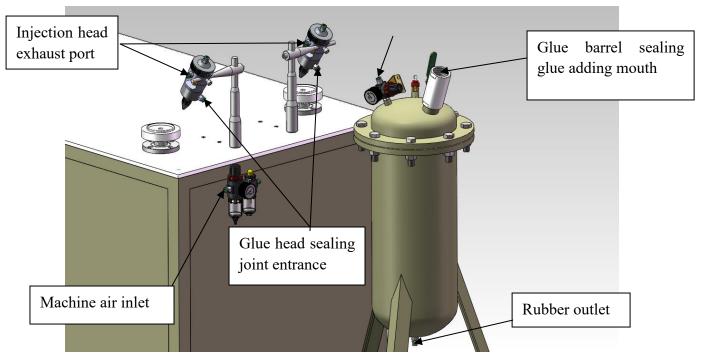
Adjust the pressure can change the size of glue bucket glue injection flow, the valve knob at the top of the plastic barrel pulled out, the clockwise rotation of the knob, plastic barrel pressure, injection head injection increased; counterclockwise rotation knob, plastic barrel pressure decreases, the glue injection head glue injection decreased; adjust after the valve pressure locking knob.



### 2.5 Operation of rubber barrel exhaust valve:

Pull the pull ring of the exhaust valve upward so that the core of the exhaust valve is above the exhaust hole and the exhaust valve is exhausted.





#### 3. Attention:

- 3.1 When the machine breaks the box, please confirm whether the machine is in good condition and whether the accessories are complete. If there is any difference, please contact the seller in time.
- 3.2 Be sure to cut off the power supply of the machine after work, until the machine power indicator goes out.
- 3.3 Please do not touch the moving parts during the running of the machine so as to avoid danger.
- 3.4 In the debugging machine, use the filter paper pad in the glue head of the outlet, so as not to seal glue to the machine, affect the normal operation of the machine.
- 3.5 When adding sealant to the glue barrel, the gas source of the rubber barrel is closed, and the air pressure of the rubber barrel is exhausted, and the sealant can be added to the glue barrel.
- 3.6 The rated air pressure of the machine is 0.3MPa. During use, the air pressure of the machine shall not exceed the rated value so as to avoid danger or damage to the parts concerned.
- 3.7 If the machine does not use for a long time, please clean the glue barrel, glue head and glue line, and clean it.
  - 3.8 After every shift, turn off the gas tank and exhaust the pressure.
- 4, Precautions For Electrical Installation And Maintenance
- 4.1 The machine adopts 220V voltage, 50Hz frequency, and the user can maintain it according to the electrical principle diagram.
  - 4.2 The machine must be earthed alone.
- 4.3 In addition to cleaning, maintenance and adjustment, the door and cover of the electric box must be closed and installed. Please do not open and remove it at will.
- 4.4 Check the insulation status of electrical box and the fastening of electrical components regularly.

- 4.6 Before operating the equipment, you must read the operation manual and the instructions of the electrical parts in detail. Do not operate at will. The unauthorized operator can not operate.
- 4.7 After pressing the emergency stop switch, the machine will stop running immediately.

## **Part V: Maintenance And Troubleshooting**

#### I.Operator Daily Maintenance

- 1. The operator shall stop the operation of the machine and turn off the power supply when it is in routine maintenance of the machine.
- 2. The components to be lubricated shall be supplied with the corresponding lubricating oil as required.
- 3. The operator shall keep the machine itself and the surrounding environment clean and hygienic every day.
  - 4. All parts of the machine should be cleaned with glue.

#### **■**.Regular Maintenance

Regular maintenance is in addition to routine maintenance, according to the specified cycle, the machine stopped, a planned inspection. Usually a regular maintenance every month, check the movement of the parts, the wear of moving parts, fasteners are loose, etc.

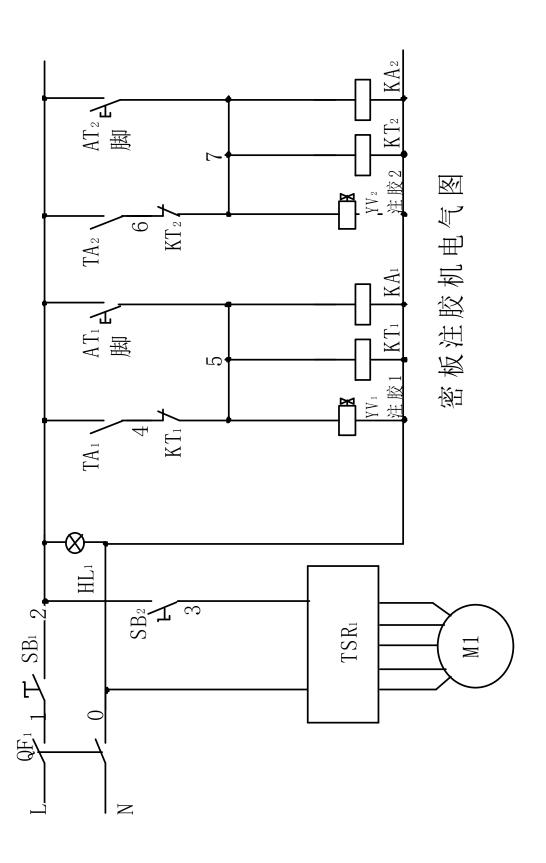
#### 1. Check

- 1.1 Is the transmission belt worn and the drive chain good?
- 1.2 Is the driving mechanism working well and with or without abnormal sound?
- 1.3 Whether the fasteners are loose or dropped, especially the transmission parts or key parts should be examined carefully.
  - 2. Regular refueling
    - 2.1 At the drive chain, brush with grease each time;
    - 2.2 The connection structure, each class of lubricating oil;
- 2.3 Prescribed lubrication, refueling, according to the production of regular lubrication.

#### **III.** Common Faults And Troubleshooting

NO	Fault	Reasons	Troubleshooting
1	No glue on the glue head	1. Nozzle clogging; 2. The emergency stop switch is pressed; 3. Injection control valve is not opened; 4. The pressure of the barrel is too small or not pressurized; 5. There is no glue sealant;	1. Use the steel wire below 0.5mm to clear the glue mouth; 2. Rotary starting and braking switch; 3. Check solenoid valve circuit and gas circuit; 4. Increase the pressure of the glue tank (not exceeding the rated value 0.3MPa) 5. Add sealant;
2	The glue injection head does not stop glue injection	1. The time relay is set too long; 2. The control valve of the glue injection head is out of order;	1. Set the time of the time relay appropriately; 2. Check or replace control valve
3	Gum leakage at outlet	1. Bleeding at outlet; 2. Piston rod cone damage; 3. The piston rod and the rubber outlet are matched with foreign bodies; 4. Push the piston rod up too tight;	1. Repair or change the outlet 2. Grinding, repairing the piston rod cone or replacing the piston rod; 3. Foreign body removal; 4. Properly increase the piston rod to push the air pressure;

Part VI: Accessory



## **II.**List Of Pneumatic Parts

NO	PART NAME	PART MODEL	QTY
1	Pneumatic two piece	AFC2000	1
2	Pressure relief valve	AR2000	1
3	Solenoid valve	4V210-08-220V	2
4	Quick plug	Ø8-1	16
5	Muffler	Class 1	4