

# **INSTRUCTION MANUAL**

# MODEL: PLZJ-2A Full-auto 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 PLZJ-2A Full-auto Sealed Plate Gluing Machine produced by PLM FILTER SOLUTION

Our company is one of the earliest factory to make filter equipment in China.After 20 years' development, now we have already invented more than 50 categories and nearly 70 kinds of filter equipment, filtration equipment and detection equipment.We produce 80 sets of filter equipment and 800 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.

It is a type of rotary equipment for filter sealed plate glue injection, which is invented by our technician after years study. It adopts screen touch interface system, easy to operate; A series of actions, such as feeding, pushing and injecting glue, are controlled by PLC program, the whole machine has good coherence and high precision; The body is light, solid, precise in structure and easy to maintain; Automatic feeding and gluing, improve work efficiency; The design of glue injection head is compact and reasonable, Good sealing performance; The injection time is controlled by time relay, ensure that the amount of glue injection will not be too much or too little; The motor speed is controlled by a governor to meet the needs of production in different situations; It is well recognized and praised by lots 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 product

X: stands for the quantity of stations

For example: PLZJ-2A stands for sealed plate gluing machine with 1 station

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**

PLZJ-2A Sealed Plate Gluing Machine is suitable for gluing process of rotary filter sealed plate.

It consists of five parts:sealed plate feed mechanism,plate push mechanism,glue injection mechanism,latex collecting bucket and bake.

It adopts screen touch interface system, easy to operate; A series of actions, such as feeding, pushing and injecting glue, are controlled by PLC program, the whole machine has good coherence and high precision; The body is light, solid, precise in structure and easy to maintain; Automatic feeding and gluing, improve work efficiency; The design of glue injection head is compact and reasonable, Good sealing performance; The injection time is controlled by time relay, ensure that the amount of glue injection will not be too much or too little; The motor speed is controlled by a governor to meet the needs of production in different situations; It is well recognized and praised by lots of users.

It is powered by electricity and compressed air.

#### **I.**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 The heater must be completely cooled before being repaired;

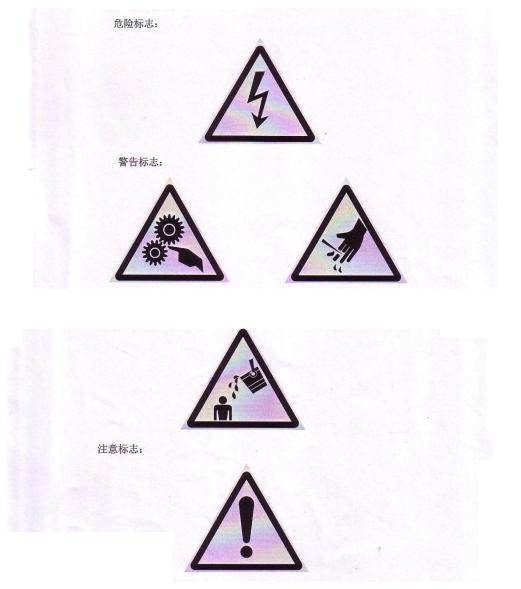
1.8 No smoking in the workplace, no fireworks.

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 Safety signs as follows:



2.4 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 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 one ton of forklifts are ready for handling the machines;

6.5 The location of the installation of machinery on the right side from the wall should be more than one meter, left side, front and back should be more 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:

PLZJ-2A Full-auto Sealed Plate Gluing Machine is produced by PLM FILTER SOLUTION with a nameplate.

#### **I.**PLZJ-2A Technical Parameters:

Production capacity: Work speed: Workpiece inner diameter: Workpiece outer diameter: Motor power:  $\begin{array}{c} 40 \text{pcs/minute} \\ \text{adjustable} \\ \Phi 13 \text{mm} {\color{red} \Phi} 50 \text{mm} \\ \Phi 50 \text{mm} {\color{red} \Phi} 140 \text{mm} \end{array}$ 

1, Feed motor:	0.4KW
2 Rotate motor:	0.25KW
3 Conveyor motor:	0.25KW
Glue tank capacity:	10kg
Injection volume:	controlled
Injection time:	adjustable
Gas pressure:	0.6MPa
Supply voltage:	220V/50Hz

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

Host	$L \times W \times H$	$1250$ mm $\times 680$ mm $\times 1770$ mm
Automatic feeder	$L \times W \times H$	$2000$ mm $\times 1550$ mm $\times 750$ mm

#### **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 away from wall should be not less than one meter, the left side, the front side and back side 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 manual.

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

Before using, please check whether the cables of the individual machines are connected or not and whether the emergency buttons are resetted or not, whether the cover of door is closed or not. If not, please do not start under protection.

#### **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 0.6MPa 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:

PLZJ-2A Full-auto Sealed Plate Gluing Machine uses the air pressure to send seal glue to the glue injection head from the glue barrel, and then pour it into the workpiece by the glue injection head.

Change the workpiece according to the bore diameter of the workpiece and support the guide post, put the workpiece on the guide post, refueling work cylinder, position the guide posts with the workpiece and without the workpiece.Feeding motor work,lift the workpiece slowly,photoelectric monitoring detects workpieces, stop the charging motor, front hand work, the workpiece is firmly absorbed, wait for the moving plate to return, reach out and place the workpiece smoothly on the moving plate. The moving plate takes the workpiece to the next working position, injection cylinder, push the workpiece to the point where it is injected, injection head glue injection, injection cylinder return, place the workpiece smoothly on the moving plate. The moving plate takes the workpiece to the next working position, rear hand work, The workpiece is firmly absorbed, when the moving plate is fully retracted, place the workpiece smoothly on the conveyor belt of the drying channel, The conveyor is then conveying workpiece through the drying channel, the sealant on the workpiece is rapidly solidified at high temperatures in the drying channel, the conveyor belt outputs the workpiece outside the machine, complete the glue injection of a workpiece.

#### **I.**Machine Operation:

1, Operation Procedure:

1.1 Close the protective cover door, reset all emergency stop buttons, switch on the main power switch, turn on the power control switch, and the power indicator light is on.

1.2 When the system is powered on, the screen will appear as shown below, and the system has two languages in both Chinese and English available.

# Part V: Maintenance And Troubleshooting

#### **I**.Operator Daily Maintenance

1. The operator shall stop the operation and turn off the power supply when it is in maintenance.

2, The components to be lubricated shall be supplied with the corresponding lubricating oil as required.

3 . The operator shall keep the machine and the surrounding environment clean and hygienic every day.

4. All parts of the machine with sealant should be cleaned up.

#### **I**.Regular Maintenance

Regular maintenance is except daily maintenance, according to 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 or not, etc. 1、Check

1.1 Check whether the driving belt is worn or not, whether the drive chain is good or not;

1.2 Whether driving mechanism working well or not, with abnormal sound or not;

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 adds lubricating oil;

2.3 Prescribed lubrication, refueling, according to the production of regular lubrication.

NO	Fault	Reasons	Troubleshooting			
1	No glue on the glue injection head	<ol> <li>Nozzle blocking;</li> <li>The emergency stop switch is pressed;</li> <li>Injection control valve is not opened;</li> <li>The pressure of the glue barrel is too small or not pressurized;</li> <li>There is no glue sealant in glue barrel;</li> </ol>	<ol> <li>Use the steel wire below 0.5mm to clear the glue mouth;</li> <li>Unpressed emergency stop switch;</li> <li>Check solenoid valve circuit and air passage;</li> <li>Increase the pressure of the glue barrel (not exceeding the rated value 0.3MPa)</li> <li>Add sealant;</li> </ol>			
2	The glue injection head does not stop glue injection	<ol> <li>1. The time relay is set too long;</li> <li>2. The control valve of the glue injection head is out of order;</li> </ol>	<ol> <li>Set the time relay appropriately;</li> <li>Repair or replace the</li> </ol>			
3	Glue leakage at outlet	<ol> <li>Damage at outlet;</li> <li>Piston rod cone damage;</li> <li>The piston rod and the glue outlet are matched with foreign bodies;</li> <li>The air pressure of pushing the piston rod is too small;</li> </ol>	<ol> <li>Repair or replace glue outlet</li> <li>Grinding, repairing the piston rod cone or replacing the piston rod;</li> <li>Eliminate foreign body;</li> <li>Properly increase the pushing air pressure of the piston rod;</li> </ol>			

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

	1	The pla	acement	of	1、	Refueling	cylinder	1、	Increase	e	refueling
4		the refueling			pressure is too small			cylinder pressure			
		guide	pillar	is	2	Refueling	cylinder	2、	Adjust	the	refueling
		wrong				stroke is too	large or		cylinder		stroke
						too small			position	bloc	k