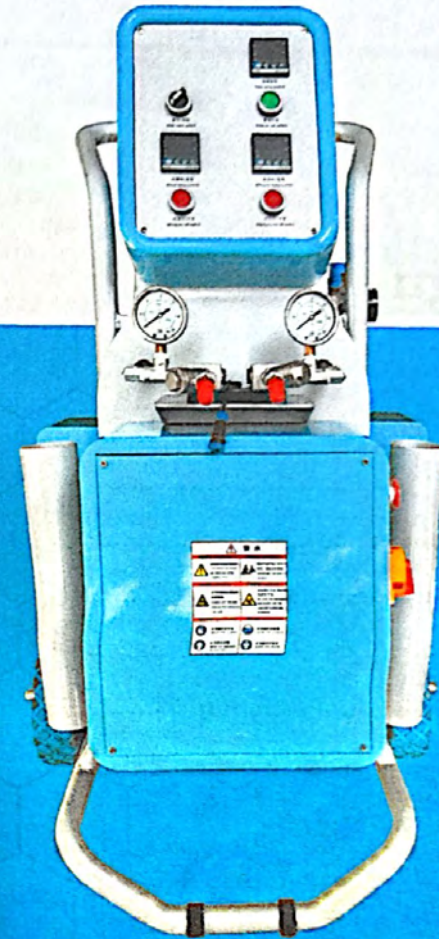


MANUAL



Polyurea spraying machine

Instruction Manual

TEXOR

Ante cualquier duda o consulta, comunicarse con nuestra línea de servicio técnico 0800 333 0370

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感谢词

Thank you words

Thanks for ordering with us and we really appreciate the opportunity of doing business with you. Your satisfaction is our top priority. This instruction manual keeps good records of using instructions. Please read it carefully before using. We will do our best to provide a comprehensive range of technical support and great after-sale service. To adapt to market and improve service quality, we will continue to upgrade and innovate our products. The specification instruction are subject to change without separate notice.

安全注意事项

Safe Operation Precautions

This product is non explosion-proof equipment and cannot be used in flammable and explosive occasions. Equipment operator must strictly follow the required procedures during the operation, any improper operation might result in equipment damage or threat to personal safety. The manual describes the procedures to be followed for safety production of polyurethane. Equipment operators should read this manual very carefully and get an comprehensive understand of it, for safe and operation of the equipment and are able to quickly deal with problems and failures that might appear.

Operators must take good precautions to protect respiratory and eyes and other important body parts. The following precautions measures is highly required while using polyurethane spray equipment:

- Protective mask required
- Chemical Protective Clothing
- Protective footwear required
- Splash-proof goggles required
- Protection Gloves required

安全注意事项 Safe Operation Precautions



● 必须戴防护面具 ● 必须戴防护眼镜 ● 必须穿防护服 ● 必须戴防护手套 ● 必须穿防护鞋

设备优势

Equipment advantages

1. Cylinder and solenoid valve choose international brand "Yadeke" products, durable, powerful;
2. Pneumatic supercharging device failure rate is low, simple operation, convenient to move;
3. Advanced ventilation mode, to ensure the maximum stability of the equipment;
4. The four-weight raw material filter device can minimize the problem of spraying blockage;
5. Multiple leakage protection system can protect the safety of the operator;
6. Equipped with emergency switch system, can be the most rapid response to the occurrence of emergency;
7. High power heating system can make the raw material temperature quickly to the ideal state, meet the normal construction of equipment in cold areas;
8. The user-friendly setting of the equipment operation panel, it is easy to master the operation mode;
9. The latest spray gun has the advantages of small size, light weight, low failure rate;
10. The feed pump using large ratio, winter high viscosity of raw materials can also easily feed.

技术参数

Technical Parameters

| | | | |
|----------------|------------------------|------------------------|-----------|
| Name: | Polyurea spray machine | Model: | / |
| Power source: | Single phase 220V 50Hz | Maximum pressure: | 24MPa |
| Total power: | 6kW | Material output ratio: | 1:1 |
| Heating power: | 4kW | Raw output: | 2~8kg/Min |
| Driven mode: | Pneumatic | Support pipeline: | 30M |
| Air source: | 0.5~0.9MPa≥1m³/Min | Weight: | 116kg |

应用领域

Equipment Applications

Mainly used for spraying:

Demineralized water tank, water park, sports stand, high-speed railway, overhead bridge, industrial and mining equipment, foam sculpture, valve, workshop floor, bulletproof clothing, armored vehicle, sewage tank, carriage, pipeline, mineral processing equipment, wall, roof, cold storage, cabin, refrigerator car, tank, etc.

For pouring:

Subgrade filling, water heater, water tank, beer tank, storage tank, etc.

包装清单

Equipment packing list

Upon the receipt of commodity, please check if it's in accordance with the configuration of Packing lists.

| Name | Number | Remarks |
|----------------------|----------|---------|
| Main machine | 1 set | None |
| Spray gun | 1 set | None |
| Feeding pump | 2 sets | None |
| Heating pipes | 15 metes | None |
| Main air pipe | 1 set | None |
| Spray gun connectors | 2 sets | None |
| Feed delivery pipes | 2 sets | None |
| Air delivery pipes | 1 set | None |
| Accessories box | 1 set | None |
| Instruction manual | 1 copy | None |

设备安装图文说明

Equipment Installation Illustration

Main power: Power switch to turn on and off of the equipment;

Temperature control table: setting and displaying real-time system temperature;

Reset/Start switch: When you start the machine, making the knob pointing at Start. When the work is done, switching it to the reset direction;

Thermostat switch: Controlling on-and-off of the heating system. When it's on, the system temperature will cut off the power automatically after the temperature reaches the setting, the light is off at the moment; When the temperature is below the setting, it will activate heating system automatically, the light is on at the moment; If heating is no longer needed, you can manually turn off the switch, the light is off at the moment;

Ring transformer: Heat the heating insulation pipe;

设备安装图文说明

Equipment Installation Illustration

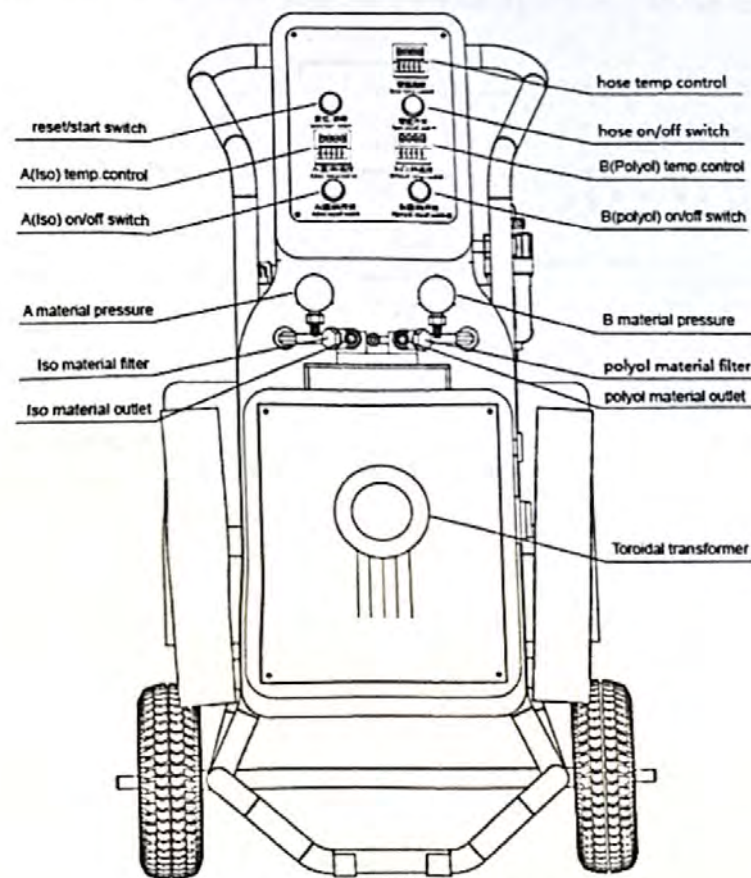
Emergency switch: Cutting off power rapidly in emergencies;

Hydraulic pressure indicator: Displaying the output pressure of Iso and Polyol material when the machine is working;

Heating tube: heating Iso and Polyol materials and is controlled by Iso/Polyol material temp. control;

Raw material outlet: Outlet of Iso and Polyol materials and are connected with Iso and Polyol material pipes;

Iso/Polyol material filter: filtering impurities of Iso and Polyol material in the equipment;



设备安装图文说明

Equipment Installation Illustration

Air pressure regulator: adjusting highs and lows of input air pressure;

Barometer: displaying input air pressure;

Oil-water separator: providing lubricating oil for the cylinder;

Air-water separator: filtering the air and water in the cylinder;

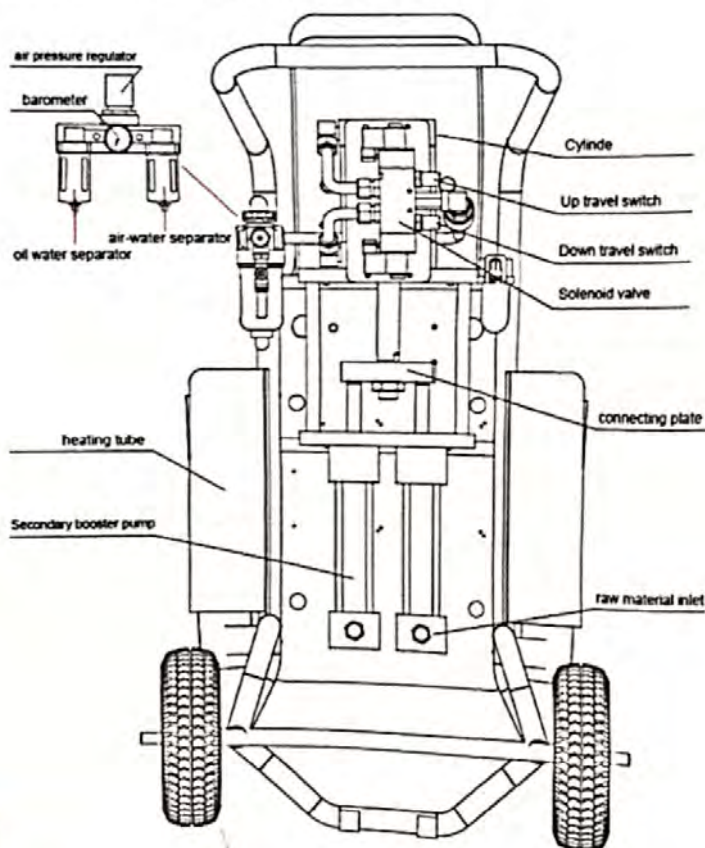
Cylinder: booster pump power source;

Connecting plate: connecting cylinder and secondary pump;

Travel switch: control cylinder up and down movement;

Secondary Booster pump: booster pump for A, B material;

Raw material inlet: Connecting to feeding pump outlet.

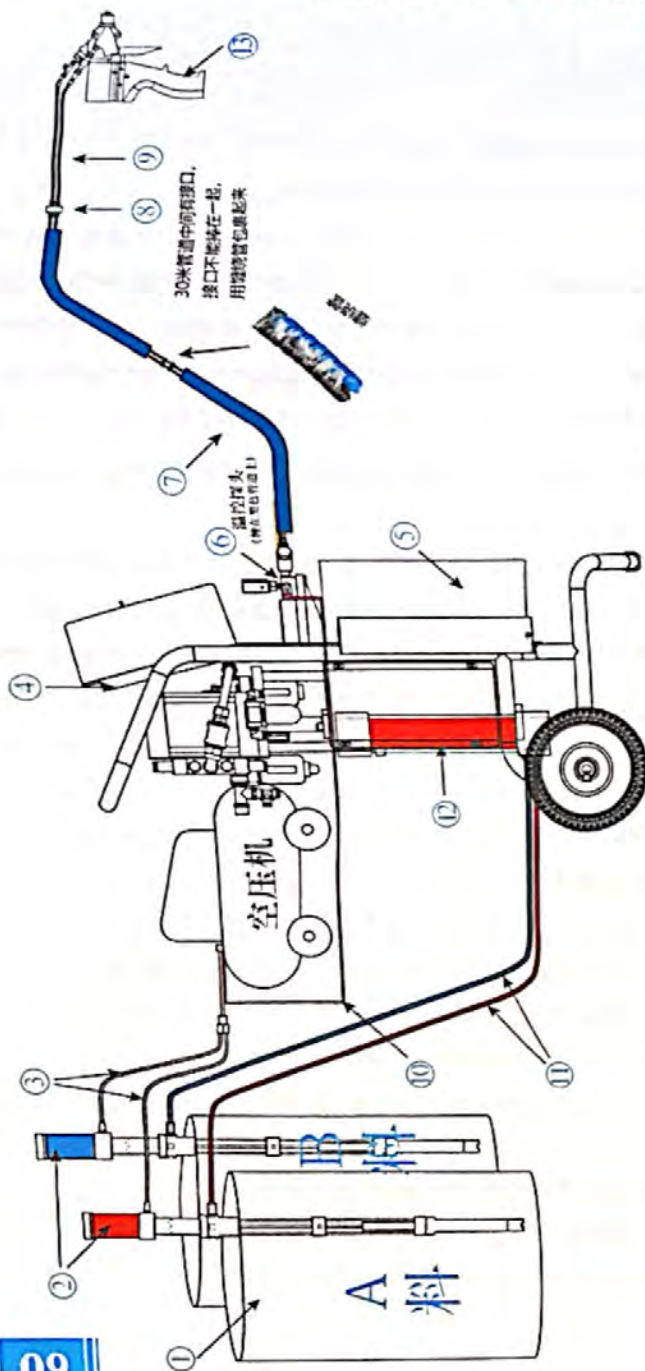


07

设备安装图文说明

Equipment Installation Illustration

1. Unpack the box and place equipment in ideal spot.
2. Unpack the feeding pump box and connect them to the equipment. Take out feeding pump material filter from the accessory box, and install them separately on the raw material outlet. Connect the equipment to feeding pump with feed delivery pipe, making sure it's fastened in case there might be a leakage happening.
3. Unpack heating pipes, and connect them to the equipment raw material outlet. The black pipe is connected to the outlet of Iso material, and the blue pipe is connected to the outlet of Polyol material (the color corresponds to the corresponding color).
4. If you need to use more than one set of heating pipes, open the main machine box and find the ring transformer. The black line is the zero line, which is connected to one end of the outlet. The yellow line is the live line, which is counted from one end of the zero line to the outside, which is the first, the second, the third, the fourth live line, etc. Use one pipe, use the first live line, connect to the other end of the outlet, and fix it; Use two pipes, connect the second fire wire to the other end of the outlet, fix it, and so on. Connect one end of the return aluminum block with the gun barrel (installed at the factory), and the other end with the pipe. In case of pipeline change, it is necessary to increase or decrease the number of pipes. If several pipes are needed, they will be connected to the first section of pipes. At the same time, the first fire wire will be connected to the aluminum block at the outlet and fixed and connect air delivery pipe with quick connector.
5. Connect Iso and Polyol material pipes to spray gun with gun connectors, and connect air delivery pipe with air source port of the gun.
6. Connect main air delivery pipe of equipment with air compressor.
7. Connect equipment power cable with 220v power supply and the whole installation process is done. (Pay attention to the zero line connection).



1. Material barrel
2. Feeding pump
3. Feed pump air pipe
4. Main machine
5. heating tube
6. Pipe temperature probe
7. Heating insulation pipe
8. Reflux aluminum block
9. Spray gun connectors
10. Air pipe of spray gun
11. Feed delivery pipes
12. Secondary Booster pump
13. Spray gun

设备安装注意事项

Equipment Installation attention:

When the installation is finished, please make sure check the following items before operating.

1. All connectors from equipment to spray gun are well connected, no air leakage or material leakage.
2. Do differentiate the whole pipe from feeding pump to spray gun from Iso material and Polyol material, in case the system might crash if they got mixed up.
3. Safety earth connections is required and so is electric leakage protector.
4. Please turn off heating system and cutting off power when the equipment stops operating, in case there might low foaming quality caused by long-time heating.

设备主机调试

Product host debugging

- ① Fill the equipment with materials and place two feeding pumps into corresponding material barrel, one for Iso material and the other for polyol material. Then turn on main air source that connected to the equipment, feeding pumps start working at this time.
- ② Place a clear contain under two feed lump of spray gun, slowly turn on Iso material switch and release all the air from the air-delivery pipe till there's material spraying out smoothly. Then switch to polyol material switch and release the air in the pipe.
- ③ After releasing all the air left in the pipe (only use feeding pump to let out air), at this time, the pressure numbers displaying on both hydraulic pressure indicator should roughly be the same, if one side is higher, then slowly turn on higher-side material switch and let material flow out till the number becomes the same.
- ④ Swipe off the left material on feed lump surface and coat with grease, then put feed lumps back to the gun body. Make sure it's fastened well in case there's a leakage.
- ⑤ Straightened up material conveying pipes to avoid inside heating wires damaging caused by uneven heating. Turn on A/B material switch and heating pipe switch and set up the ideal temperature. When the temperature reaches to the defined value, rotate pressure counter-clockwise, then start the equipment.
- ⑥ Adjust the pressure regulator to 0.3-0.6Mpa.
- ⑦ Turn on air switch of spray gun, then turn on A/B material switches.
- ⑧ Now, the whole system is all set, rotate air pressure regulator clockwise and pull the trigger when the value reaches to 8Mpa.
- ⑨ When indoors temperature is below 35°C, please turn on heating system and warm up Iso, Polyol materials and pipes. The Iso material setting on temperature control can't exceed 35°C, heating pipe setting can't exceed 35°C, Polyol material can't exceed 35°C.

关机步骤

Shutdown step

1. Close the high pressure ball valve on both sides of the gun, repeatedly pull the trigger several times, and then close the air source after 20 minutes of air discharge;
2. Turn off Iso and Polyol material and pipeline heating power switch;
3. Turn the knob to the reset position;
4. Turn off the main power switch on the dashboard of the host;
5. Check the spray gun. If it is blocked, carry out necessary cleaning, maintenance and repair.

设备日常使用及维护

Daily use and maintenance of equipment

1. Main Machine Daily Use and Maintenance

- ① Check whether the white oil in the oil cup of the secondary pump is sufficient every day;
- ② When equipment stops running, swerve Start/Reset switch to reset direction, making sure cylinder rod fully soaked inside DOP liquid, in this way it can prolong service life of seal ring.
- ③ Check sensitivity of the equipment heating system, if anything goes wrong, please fix the problem as soon as possible.
- ④ When equipment isn't working, please turn off heating system timely, for not only it prevents potential danger also avoids low foaming quality because of Polyol material long-time heating.
- ⑤ Make sure turning on and off heating system in correct order. When turning on, first start main power, then turn on heating system; when turning off, first stopping heating system then turning off main power.
- ⑥ Remember to check if there's enough oil inside oil-water separator and the water expelled from the separator;

设备日常使用及维护

Daily use and maintenance of equipment

Triplet/Oil-water separator

1. During installation, please pay attention to cleaning connecting pipes and joints to avoid bringing dirt into the gas path.
2. During installation, please pay attention to whether the air flow direction is consistent with the direction indicated by the arrow on the body, and whether the connecting pipe and tooth shape are correct.
3. pressure regulator: Pull up the adjustment knob and rotate clockwise to increase the pressure. Rotate counterclockwise and the pressure drops. Adjust to the required pressure and press down the pressure regulating knob to lock.
4. Water discharge: When there is no air pressure, the water will be discharged automatically. When there is air pressure, push the drainage column upward to discharge the water. After the drainage is completed, release the drainage column, and the drainage column will automatically pop down, and the drainage is completed. When the water level exceeds the upper limit, please drain immediately, otherwise the solenoid valve and pneumatic components in the cylinder will be damaged.
5. Oil volume adjustment: turn the needle valve clockwise to reduce the oil dripping, and turn the needle valve counterclockwise to increase the oil dripping.
Air flow adjustment: after setting the needle valve, the air flow is large, and the oil drop is large: the air flow is small, and the oil drop is small.
6. Refueling method: refueling operation can be carried out without closing the air pipeline. turn the refueling screw counterclockwise, refueling please do not exceed 80% of the cup. Lock the screws after adding oil; Do not unload the oil storage cup directly for refueling.

设备日常使用及维护

Daily use and maintenance of equipment

2. Spray Gun Use and Maintenance

①When using spray gun, first you need to make sure there's air source for it, then turn on Iso and Polyol material switch, and pull the trigger. When atomization appears, it's good to use. There will be air coming out from gun muzzle if you loosed the trigger. If there's no air coming out from gun muzzle, do not pull the trigger.

②Please notice that do not cut off air supply at any time when the equipment is working.

③When the machine is working, Close the high pressure ball valve, we can avoid gun chamber blocking because of liquid leakage. The following steps are:

(1) Turn off all heating system switches, then swerve Start/Reset button to Reset, and cut off main power;

(2) Cutting off air supply of feeding pump;

(3) Turn off Iso and Polyol material switch, pull the trigger for a few times until there's nothing left in gun chamber.

④Regularly checking if there's any residue in gun head, remove them if there is some.

⑤Every day after work, be sure to unload equipment air pressure as zero, seal the whole spray gun feed lump and muzzle with vaseline to keep air outside so the equipment could work properly the next day.

⑥Regularly checking the elasticity of friction pair, avoiding there might be material leakage due to low elasticity of friction pair.

⑦If you don't need to use spray gun for a long term, please take the following instructions. Unload gun muzzle and clean it, if gun chamber is clean, then seal it with vaseline; if it isn't, you need to remove the chamber from the gun and clean it, then seal it with vaseline for the future use.

常见故障及排除

Common faults and troubleshooting

1. Main Machine Troubleshooting

(1) First, we need to learn about three conditions that makes the machine work. To guarantee the proper functioning of the machine, the three conditions must co-exist. If any one of them goes wrong, the machine won't work:

①Air supply. The air pressure is up to 0.6Mpa~0.8Mpa and Slide switch is on;

②Power supply. Power is on and Start/Reset switch is in Start position;

③No air pressure inside the pipes. When barometer functions properly, pressure is zero. (The machine won't work if there's pressure in one side pipe.)

If the three conditions are function well, machine still doesn't work, time to check travel switch and electromagnetic valve coil.

For in-use machine, with three conditions, the machine still doesn't work. Please take the following steps: On condition that machine has air supply and Start/Reset Switch in Start position, if the cylinder doesn't move upward, the travel switch and electromagnetic valve down below are broken; if the cylinder doesn't move downward, the travel switch and electromagnetic valve up above are broken. Find broken travel switch and electromagnetic valve and change them with new ones.

For long-time unused machine, with three conditions, the machine still doesn't work, please take the following steps:

Unload the connecting board between cylinder and primary-secondary pump,

①making sure there's air and power supply then start the machine and see if cylinder works. If it doesn't, press small red buttons on left side of magnetic valve and listen if there's any sound. If there's no sound, the coil and travel switch might be broken.

②Turn off main power, remove the silver lid on electromagnetic valve and keep delivering air to cylinder, in the mean time, press the small red buttons from the top and bottom of electromagnetic valve, and see if cylinder moves.

常见故障及排除

Common faults and troubleshooting

If it doesn't, electromagnetic valve might be broken.

(2) .Temperature control on panel board is broken, it doesn't stop when temperature reaches upper limit or lower limit. First, please check if temperature sensor is broken or peeled off. If there's nothing wrong the temperature sensor, it's the temperature control that's broken. Please note: Do not use the machine if temperature control is broken.

2.Primary-Secondary Pump Troubleshooting

(1).Primary-Secondary Pump Boosting Failure Judging Methods

- ①Power off machine and unload feed lumps from spray gun;
- ②Turn on machine and start circulation.(Iso material circulates to Iso material barrel and polyol material circulates to polyol material barrel, be careful not to mix it up!)
- ③Keep one valve open and the other closed; when the pressure is rising on turned valve side, check if machine can work; if it doesn't, the primary-secondary pump is good;if it still works, it means the seal ring is broken from turned-off valve side;vice versa. Find the broken side and change seal ring with a new one.

How to change seal ring of primary-secondary pump

- 1) Remove screw rings from primary-secondary pump bottom and screw rings with size of 14*1.5 on axis, then unload steel cylinder and pedestal, and change steel ball and shim; unload the base under piston head, and change small steel ball and seal rings;
- 2) Remove screw rings from primary-secondary pump bottom and screw rings with size of 14*1.5 on axis, then unload steel cylinder and pedestal, and change steel ball and shim; unload the base under piston head, and change small steel ball and seal rings;

(2).Primary-secondary pump maintenance Notice:

- ①Do remember to check normality of all the O-rings, if there's any deformed O-rings caused by long time soaking, please change them with new ones.
- ②Be sure to use vaseline when changing seal rings and O-rings, in case there might be a new accessories scratching.

常见故障及排除

Common faults and troubleshooting

3.Feeding Pump Troubleshooting

①On condition that machine is static and with air supply, feeding pump is moving rapidly and continuously, it might be caused by two following reasons:

A.The connecting hook between cylinder and lower part coming off, please take off big screw under the cylinder and hang it up then fasten it;

B.Piston head coming off, reload it;

②Congestion of feeding pump upper material outlet filter, please remove filter and clean them;

③Continuous air leakage, broken O-rings might be the cause, changing a new one should solve the problem.

④Air leakage happening now and then when feeding pump is working, under such circumstances,usually low air pressure is the cause, just need to turn up the air pressure;

⑤When feeding pump can't feed material properly, usually it's cause the seal ring under feeding pump is seriously worn or fallen off, under such circumstances, please unload feeding pump and change with new seal rings.

4.Spray Gun Troubleshooting

① When spray gun is in use, there's still air and material flowing out from muzzle when loosing the trigger, there are two possible reasons for that.

1)The O-rings of friction pair is broken;

2)The string inside Friction pair is broken, causing bad seal of friction pair and mixing chamber

②With air supply, if gun head can't rebound, the O ring inside the trigger might be broken, please change with new one; if the gun still can't work properly after changing O ring, please check if auxiliary hole is blocked, if it is, cleaning it should solve the problem.

常见故障及排除

Common faults and troubleshooting

③If there is serious blocking of spray gun, please unload the whole body and open all auxiliary holes, cleaning them with iron wires and drill till it's all clear; please remember to use vaseline when changing O rings, not only for convenient installation, but also it can prolong service life of O rings.

Possible Reasons for Poor Atomization of Spray Gun

(1) When machine is working, air pressure of the machine is too low to reach the requested working standard;

(2) There might be blockages around gun muzzle, causing irregular atomization;

(3) Low temperature of material causing high viscosity and raindrop-shaped atomization(ideal temperature for Iso material is around 35°C)

(4) Iso and Polyol material pressure bias causing bad atomization with following reasons:

Pressure difference of Iso and Polyol material is too high(can be shown on hydraulic pressure indicator), uneven proportion of Iso and Polyol materials might cause bad atomization;

A.One-side pressure of spray gun is high, there might be blockages of feeding lump, mixing chamber or pipes,causing low material flow so it can't be fully mixed with other side material;

B.One-side pressure of machine is low, two possible reasons:

①Feeding pump can't feed material for equipment

②Primary-secondary pump doesn't boost pressure. Glyd ring inside primary-secondary pump might be broken,leading small metal ball can't be fully sealed and big metal ball can't match with shim.

设备日常清洗

Daily cleaning of equipment

Long-term maintenance of equipment:

This mode of operation is mainly aimed at the long-term non-use of the equipment.

Please follow the following steps to deal with the measures taken. This method is suitable for both Iso and Polyol materials at the same time:

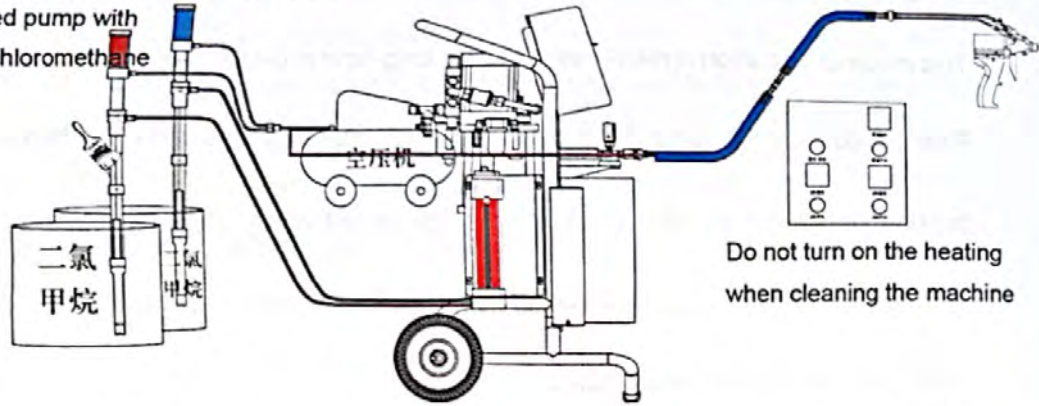
- ①Take out feeding pump from material barrel, clean the left material on feeding pump surface with dichloromethane;
- ②Put feeding pump into container with dichloromethane liquid;
- ③Turn on the machine, till clear dichloromethane liquid sprayed from gun nozzle;
- ④And then put the feed pump in a container containing the white oil solution.
- ⑤Turn on the machine, till clear white oil liquid sprayed from gun nozzle;
- ⑥On condition that the system is filled withwhite oil, turn off Iso and Polyol material switch on spray gun, keep air pressure as 0.1Mpa-0.3Mpa;
- ⑦Turn off main power, bend down power cable;
- ⑧Seal and store the feed port of the feeding pump.
- ⑨When white oil is stored in the machine and pipeline, store the machine.

设备清洗流程图

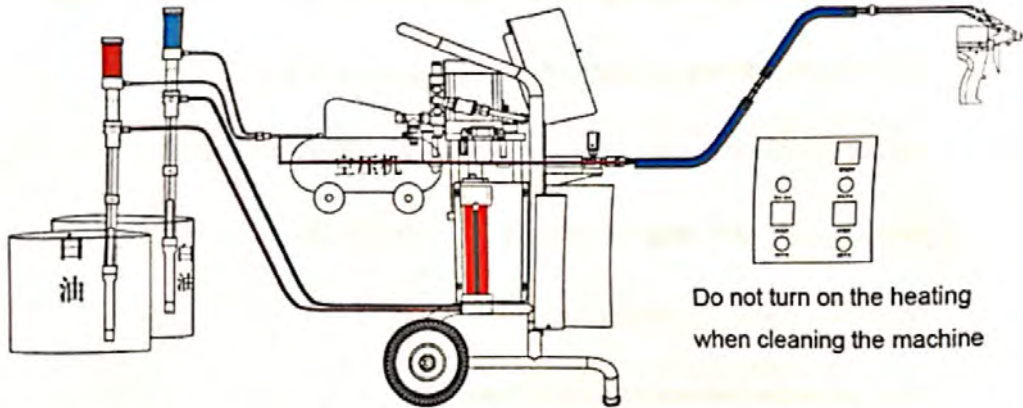
Equipment installation Cleaning process

Clean the external surface of the

feed pump with
dichloromethane



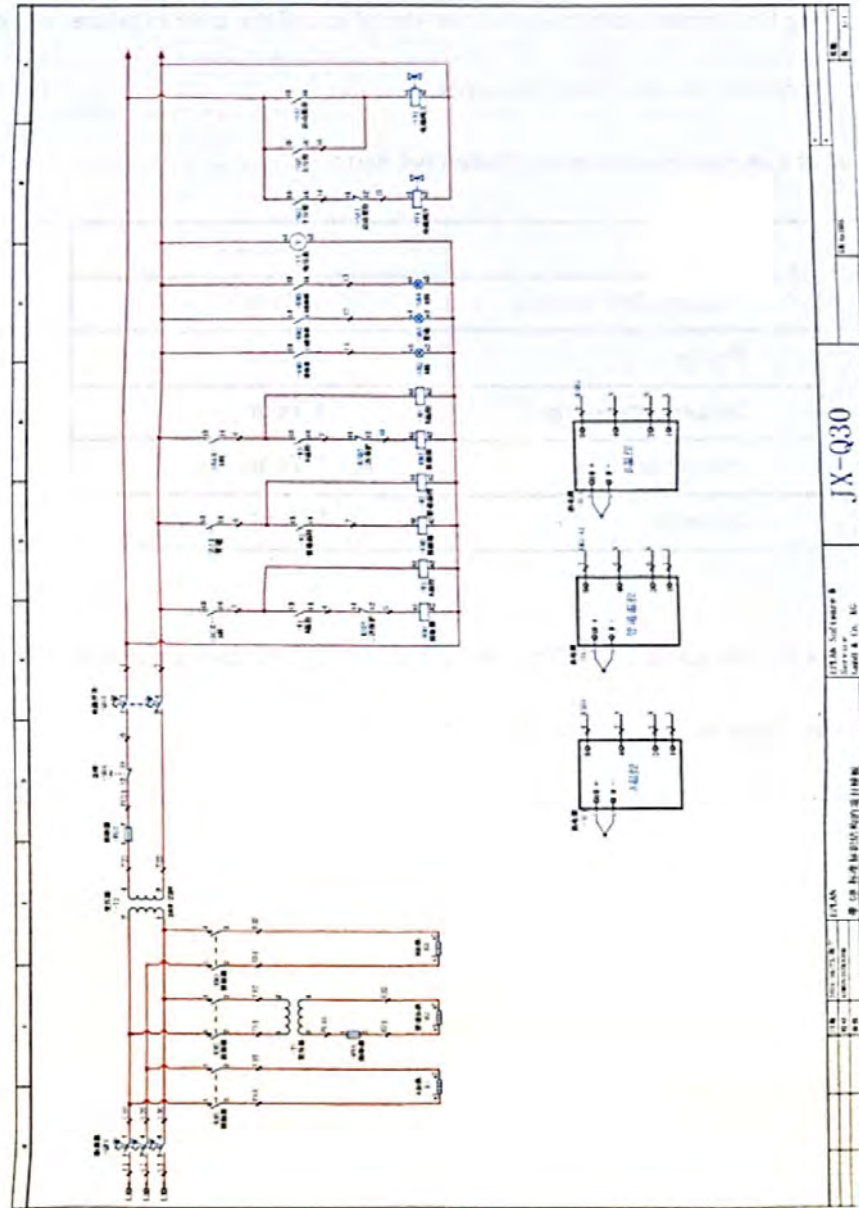
step1: The cleaning machine and the spraying raw material operation method is the same, the feed pump is taken out of the raw material barrel, inserted into the dichloromethane cleaning solution. Turn on the power supply, gas source, start, pull the trigger of the spray gun and spray outward until dichloromethane is sprayed.



step2: take the feed pump out of the dichloromethane barrel and insert it into the white oil barrel. The operation is the same as that in the first step until the white oil is ejected(dichloromethane and white oil need 20 kg each).

设备电路图

Equipment circuit diagram



JX-Q30

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售后服务 After-sale service

1. During the warranty period, you in the normal use of the case of failure, you can directly contact the company after-sales.

2. List of free maintenance and replacement parts:

| Name | Warranty |
|-------------------|----------|
| Pneumatic Feeding | 1 Year |
| Pump | 1 Year |
| Secondary Pump | 1 Year |
| Instrument | 1 Year |
| Cylinder | 1 Year |

3. Except for the above parts, The rest are generally not covered by warranty. For

example: pipes, valves, cases, vulnerable parts, etc.

4. Under Following Circumstances not including free maintenance

A. Feeding Pump isn't used according to instruction Manual

B. Out of Warranty

C. man-made damage for the feeding pump

D. accidental collision

保修记录 Warranty record

| Time | Warranty item | Notes |
|------|---------------|-------|
| | | |
| | | |
| | | |
| | | |
| | | |