

热风缝口密封机
Hot Air Seam Sealing Machine
RF-A2 (电脑型)
RF-A2 (computer type)

使用说明书
Operation Manual

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本机简介

Brief introduction

RF-A2 电脑热风机是最新开发设计的程控型热风缝口密封机。

RF-A2 computer type air heater is the newly designed and developed program-controlled hot air seam sealing machine.

RF-A2 电脑热风机利用微电脑技术，单片机程序智能控制，数字设定及参数调整，加强型曲尺，超薄下柱设计，自动控温，自动剪刀、送带、微退等，使操作更简便，调试维护更容易，性能及可靠性更高。

RF-A2 computer type air heater applies the microcomputer technology, single-chip program control, digital setting and parameter adjustment, reinforced trisquare, ultrathin lower column design, automatic temperature control, automatic scissors, tape feeding and backlashing, etc to provide the advantages of easy operation, easy maintenance and better performance and reliability.

RF-A2 电脑热风机还具有超大的操作空间，压带效果理想，适合各类生产高、中档防水服装、帐篷厂家，尤其适用三层布等高级服装生产厂家。

RF-A2 computer type air heater provides extra large operation space and best tape pressing result, suitable for high and middle class waterproof clothing and tent factory, especially suitable for high class clothing factory manufacturing three-ply cloth.

1. 本机原理、特点、性能参数

1. Principle, characteristic and performance parameter

1.1 原理

1.1 Principle

通过热风对热封胶带进行加温（加热），利用压轮连续运转进行加压，将热封胶带完美地粘合在防水服（或其他产品）的缝口上，以达密封的目的与效果。

It warms (heats) the heat sealing adhesive tape by hot air and presses the tape by continuous running of pinch wheel to perfectly adhere the heat sealing adhesive tape to the seams of water-proof clothing (or other products) to achieve the aim and effect of sealing.

1.2 特点

1.2 Characteristics

1.2.1 温度自动控制，稳定性高，温度波动 ± 2 。温度上限报警设计，保护发热丝。

1.2.1 Automatic temperature control and high stability with ± 2 temperature fluctuation. Upper temperature limit alarm to protect the heating coil.

1.2.2 PLC 自动控制，可根据用户需要随时修改程序。

1.2.2 PLC automatic control and the program could be changed any time according to the request of user.

1.2.3 机械部分选用优质钢材，设计坚固、耐用，主要部件全套采用进口电气元件，可靠性极高。

1.2.3 Some parts of the machine are made of high quality steel. It's designed to be strong and durable. Some components are the imported electric components with high reliability.

1.2.4 上下压轮链条同步传动、自动补偿虚位、自动微退功能，减少压带空白，保证产品质量。

1.2.4 Synchronous drive of chains of upper and lower pinch wheels, automatic compensation of blank position and automatic backlashing could reduce the blank tape to ensure the quality.

1.2.5 根据人体力学设计双脚踏控制程序，操作简单舒适，不易疲劳，适宜长时间操作。

1.2.5 The double pedal control program is designed according to human mechanics, which is suitable for long term operation, as it makes the operation easy and comfortable and makes operators not easy to be

tired.

1.2.6 独特发热管结构，进风经过滤，绝无水分及油分。

1.2.6 The unique structure of heating tube makes filtration of inlet air to be free of water and oil.

1.2.7 自动剪带、送带，自动带尾完成，减少材料损耗。

1.2.7 Automatic tape cutting, tape feeding and automatic tape trailer completion to reduce the material loss.

1.2.8 特别铸造加强型曲尺结构，超大操作空间。

1.2.8 Special casting of reinforced trisquare structure to provide the super large operation space.

1.2.9 下柱独特超薄设计，适宜各种大中小件产品密封压带。

1.2.9 The special ultrathin design of lower column makes it suitable for sealing tapes of large, medium and small products.

1.2.10 集国内外各种机型优点、机械、电气采用各种精湛成熟技术。

1.2.10 It integrates the advantages, advanced mechanical and electrical technology of different machines in China and abroad.

1.3 性能参数

1.3 Performance parameters

1.3.1 功率约 3KW，根据发热温度而定，额定电压：AC~220V，额定频率 50Hz。

1.3.1 The power is about 3KW to be determined according to heating temperature, rated voltage: AC~220V; rated frequency: 50Hz.

1.3.2 发热管最高温度 $\leq 700^{\circ}\text{C}$ 。

1.3.2 Maximum temperature of heating tube $\leq 700^{\circ}\text{C}$.

1.3.3 发热管功率：约 2500W。

1.3.3 Power of heating tube: about 2500W.

1.3.4 本机总气压：3-3.5kg/cm²。

1.3.4 Total air pressure: 3-3.5kg/cm².

1.3.5 上柱压轮压力为 1-1.5 kg/cm²。

1.3.5 Pressure of upper column pinch wheel: 1-1.5 kg/cm².

1.3.6 速度：18mm/min。 .

1.3.6 Speed: 18mm/min.

1.3.7 外形尺寸：600X1350X1530mm。

1.3.7 Dimension: 600X1350X1530mm.

1.3.8 电机功率：60W。

1.3.8 Motor power: 60W.

1.3.9 上轮压降行程：18-30mm。

1.3.9 Lifting travel of upper wheel: 18-30mm.

1.3.10 压轮宽度：25.4mm（1英寸）。

1.3.10 Width of pinch wheel: 25.4mm（1inch） .

1.3.11 压轮直径：65mm。

1.3.11 Diameter of pinch wheel: 65mm.

1.3.12 热风枪嘴宽度：22mm。

1.3.12 Width of air heater gun nozzle: 22mm.

1.3.13 噪音：小于 80dbA。

1.3.13 Noise: less than 80dbA.

2. 注意结构及功能介绍

2. Structure and function description

2.1 机械部分结构组成

2.1 Structure of mechanical components

由机架台板组件、底板曲尺组件、风管组件、滑块组件、摆枪及调节组件、上柱组件、下柱组件及传动组件、松带组件、送带组件组成。

It's made up of frame table assembly, base trisquare assembly, air tube assembly, slider assembly, swinging gun and adjusting assembly, upper column assembly, lower column assembly and drive assembly, tape loosening assembly and tape feeding assembly.

2.2 电路控制部分组成

2.2 Circuit control components

由控制面板部分、动力部分/程序控制部分、加热部分。

It consists of control panel, drive component/program control component and heating component.

2.3 气路控制部分组成

2.3 Air control components

由滤水器、油雾器、调压阀、电磁阀、消声器、压力表、限流器、气缸、快接及气管组成。

It consists of water filter, atomized lubricator, pressure regulating valve, solenoid valve, muffler, pressure gauge, flow restrictor, air cylinder, connector and air pipe.

2.4 机械各部分功能

2.4 Function of mechanical components

2.4.1 机架台板组件：用于支撑整台机器零部件和电箱。

2.4.1 Frame table assembly: used to support the components and electric box of the machine.

2.4.2 底板曲尺组件：用于固定上柱组件、下柱组件、摆枪组件及传动组件。

2.4.2 Base trisquare assembly: used to fix upper column assembly, lower column assembly, swinging gun and drive assembly.

2.4.3 风管组件：用于连接风机与发热管（枪）。

2.4.3 Air tube assembly: used to connect blower fan and heating tube (gun).

2.4.4 滑块组件：用于上柱（上压轮）的上下滑动。

2.4.4 Slider assembly: for the up-down movement of upper column (upper pinch wheel).

2.4.5 摆枪及调节组件：用于热风枪固定调整及摆进摆出。

2.4.5 Swinging gun and adjusting assembly: used to fix, adjust and swing in and out the heating gun.

2.4.6 上柱组件：用于上压轮安装、传动及热封胶与布料进行压合。

2.4.6 Upper column assembly: used for installation and drive of upper pinch wheel and pressing of heat sealing tape and clothing.

2.4.7 下柱组件：用于安装下压轮传动部分及支撑布料与热封胶带进行压合。

2.4.7 Lower column assembly: used for installation of drive component of lower pinch wheel and support the clothing for pressing with heat sealing tape.

2.4.8 传动组件：用于上下压轮的动力传动。

2.4.8 Drive assembly: used for the drive of upper and lower pinch wheel.

2.5 电路控制各部分功能

2.5 Function of circuit control components

2.5.1 控制面板及电源开关

2.5.1 Control panel and power switch

A. 电源开关：用于整机电源开启及停止。

A. Power switch: used to start and stop the power of the machine.

B. 温度控制器（温控表）：用于发热管温度的表示、设定及自动控制，要改变或设定发热管之温度，只需按动温度控制表 R/S 键，当 PV 窗闪烁时，再按动 ^ 键或 v 键来改变 PV 的数字，便可改变发热内管的温度。

B. Temperature controller: used to display, set and automatically control the temperature of heating tube.

In order to change or set the temperature of heating tube, it's just necessary to press the R/S key of temperature controller and press ^ key or v key to change to number of PV when PV window flashes.

C. 触摸屏控制作整机程序控制参数设置，参数显示。

C. The touch screen controls the program control of parameter setting and displays the parameters.

2.5.2 动力部分功能

2.5.2 Function of drive components

A. 风机：用于发热管吹风、发热管开启前风机一定要正常工作；出风口装配有一个铜闸阀和一个压力表，可以根据需要调节发热管风量大小。

A. Blower fan: used for air blowing of heating tube and the blower fan must work normally before starting the heating tube; a copper gate valve and pressure gauge are installed at the outlet port and it's possible to adjust the air output according to the demand.

B. 强力直流电机：用于通过传动系统对上下压轮提供动力源。

B. Powerful DC motor: used to provide the power supply to the upper and lower pinch wheel through drive system.

2.5.3 详参阅触摸屏的设置操作指南。

2.5.3 Refer to the operation manual of touch screen for details.

2.5.4 加热部分功能。

2.5.4 Function of heating component

加热部分主要由发热内管及外管构成，用于对风机的风压吹进发热内管时进行加热后将热量传递到热封胶带及布料上，从而进行粘贴。

The heating component consists of inner heating tube and outer tube, transferring the heat from blower fan heating inner tube to heat sealing adhesive tape and clothing for adhesion.

2.5.5 发热部分功能

2.5.5 Function of hot components

A. 温控表：用于发热管温度的显示，设定及自动控制，控制固态继电器发热管电流，从而调节发热管温度范围。

A. Temperature controller: used to display, set and automatically control the temperature of heating tube, and control the current of solid state relay heating tube to regulate the temperature range of heating tube.

B. 稳压（固态继电器）：用于控制发热管的电流从而对发热管温度进行控制。

B. Voltage stabilizer (solid state relay): used to control the current of heating tube to control the temperature of heating tube.

注：本机电热控制电路是采用目前最先进的稳压（固态继电器），防止在工作中出现电压不稳定导致发热内管的损坏，提高了发热内管的寿命和温度准确性。

Note: the control circuit applies the most advanced voltage stabilizer (solid state relay) to prevent damage of inner heating tube caused by instable voltage during operation and improve the lifetime and temperature accuracy of inner heating tube.

C. 感温线：用于将发热管温度信号传递到温控表从而控制稳压调压模块（固态继电器）工作。

C. Temperature sensing wire: used to transfer the temperature signal of heating tube to the temperature controller to control the operation of voltage stabilizing and regulating module (solid state relay).

2.6 气路控制部分功能

2.6 Function of air control component

A. 滤水器、油雾器、总调压阀一般连为一体（又称油雾器总成），主要作用是过滤空气中的水分、向控制气路部分加入适量的润滑油及调整整机总气压力。

A. Water filter, atomized lubricator and total pressure regulating valve are usually connected together (referred to as atomized lubricator assembly); its main function is filter the water in the air, feed suitable lubricant to the air circuit and regulate the total air pressure.

B. 调压阀：用于上压轮压力调节，把手柄往上拉出，左右调节即可，顺时针加大，反时针减小。

B. Pressure regulating valve: used to regulate the pressure of upper pinch wheel. Pull the handle up and move the handle to the left or right direction. Increase by moving clockwise and decrease by moving anticlockwise.

C. 电磁阀：用于控制各气缸动作。

C. Solenoid valve: used to control the movement of all air cylinders.

D. 消声器：用于电磁排气及消声。

D. Muffler: used for air exhaust of electromagnetism and muffling.

E. 压力表：(控制面板上)

E. Pressure gauge: (on the control panel)

a. 总压力表用于显示总气压力值。

a. The total pressure gauge is used to display the total air pressure value.

b. 上压轮压力表用于显示上压轮压力值。

b. The pressure gauge of upper pinch wheel is used to display the pressure value of upper pinch wheel.

F. 限流阀：用于调节气缸运动快慢。

F. Flow restrictor: used to regulate the movement speed of air cylinder.

a. 上柱气缸限流阀用于调节上柱升降速度的快慢、稳定及顺畅。

a. The flow restrictor of upper column air cylinder is used to regulate the speed, stability and smoothness of upper column lifting.

b. 摆枪气缸限流阀用于调节摆枪速度的快慢、稳定及顺畅。

b. The flow restrictor of swinging gun air cylinder is used to regulate the speed, stability and smoothness of swinging gun.

G. 气缸：上柱气缸、摆枪气缸、剪刀气缸。

G. Air cylinder: upper column air cylinder, swinging gun air cylinder and scissor air cylinder.

a. 上柱气缸用于上柱（上压轮）的升降控制。

a. The upper column air cylinder is used to control the lifting of upper column (upper pinch wheel).

b. 摆枪气缸用于控制热风枪（发热外管）的摆进摆出。

b. The swinging gun air cylinder is used to control the swinging in-out of heating gun (outer heating tube).

c. 剪刀气缸用于控制剪刀的闭合。

c. The scissor air cylinder is used to control the opening and closing of scissors.

H. 气管与快接用于连接各种气动控制组件。

H. The air pipe and quick connectors are used to connect the pneumatic control assemblies.

2.7 其它开关功能

2.7 Function of other switches

A. 气动行程开关：用于压带前铜管吹气，便于热封胶带压在胶轮上。

A. Pneumatic travel switch: used blow the air to the copper tube before tape pressing, so that it's easy to press the adhesive tape to the wheel.

B. 漏电空气开关：用于整机总电源保护控制。

B. Anticreeping air switch: used to protect the main power of the machine.

C. 左脚踏开关：控制上柱压轮升降，踏下是控制上柱压轮下降，放开即上升。

C. Left pedal switch: control the lift of upper column pinch wheel; stepping down is to control the lowering of upper column pinch wheel and loosening the pedal is to raise the wheel.

D. 右脚踏开关：控制热枪摆入与压轮启动。

D. Right pedal switch: control the swinging in of heating gun and start the pinch wheel.

注 1：如果没有踏下左脚踏，只踏右脚踏，则只是压轮转动，热风枪是不会摆入的，这功能亦可用来送带。

Note 1: If the left pedal is not stepped down and just stepping down the right pedal, only the pinch wheel will move and the heating gun will not be swung in. This function could feed the tape.

注 2：在自动剪带状态下，先松开左脚踏后再松开右脚踏时，则进行自动剪带并在自动带尾完成后送带。

Note 2: Under the condition of automatic tape cutting, loosening the left pedal first and then loosening the right pedal, it will cut the tape automatically and feed the tape after automatic tape trailer completion.

3. 操作指南

3. Operation guide

3.1 操作准备

3.1 Operation preparation

3.1.1 开动空气压缩机，待气压表指针升到 3.5 以上时，然后打开与热风缝口密封机联接的气路开关，查看热风缝口密封机总气压应定在 3-3.5 kg/cm² 位置。

3.1.1 Start the air compressor and wait until the pressure gauge displays above 3.5, then start the air circuit switch connecting with the hot air seam sealing machine and check the total pressure of hot air seam sealing machine shall be between 3-3.5 kg/cm².

3.1.2 检查油雾器总成的油位是否在指定位置。

3.1.2 Check whether the oil level of atomized lubricator assembly is at the assigned position.

3.1.3 启动稳压器开关，检查输入电压是否稳定在 AC ~ 220V（电源稳定地区可以不另加独立的稳压器）。

3.1.3 Start the voltage stabilizer and check whether the input voltage (AC 220V) is stable (the additional voltage stabilizer is not necessary in the stable power supply area).

3.2 开机程序

3.2 Starting procedure

3.2.1 打开电箱内的总电源漏电开关及电箱正前面的电源开关（风机、温控表、可编程器、同时接通电源）。

3.2.1 Start the main power supply anticreeping switch in the electric box and the power switch in the front of electric box (to supply power to blower fan, temperature controller and PLC).

3.2.2 可编程器参数设置操作规程

3.2.2 PLC parameter setting operation procedure

1. 本机使用日本松下 PLC 全自动控制可编程液晶显示人性化操作，只要用手指点动各个按键就可以完成各种设置功能。

1. This machine applies the Panasonic PLC with user-friendly interface and it's only necessary to push the keys with fingers to complete all settings.

2. 打开电源开关，进入第一个主画面。

2. Start the power switch to enter the first main menu.

2.1 显示压轮速度：“米/分钟”

2.1 It shows the speed of pinch wheel: “ m/min”.

2.2 累计工作时间：“小时”

2.2 Total working time: “ hours”.

2.3 加热键，按下加热键三秒钟，发热管自动加热，再按三秒钟关闭加热发热管停止加热。

2.3 Heating key: press the heating key for three seconds and the heating tube will heat automatically; and press it again for three seconds, the heating tube will stop heating.

2.4 反转键，按下反转键压轮反转。

2.4 Reverse key: press the reverse key, the pinch wheel will reverse.

2.5 剪刀键，按下剪刀键进行手动剪带。

2.5 Scissor key: press the scissor key, it will cut the tape manually.

2.6 设定键，按下设定键进入第二个画面，可进行数据设置，操作说明故障查询等功能。

2.6 Setting key: press the setting key, it will enter the second menu to set the parameters, view operation instruction and troubleshooting, etc.

3. 第二个主画面

3. Second main menu

3.1 密码功能键进行参数调数时，按下？或*号键，键盘出现，在键盘上输入密码“2222”后按回车键，再按确定键进入参数调整共 11 个画面，如密码错误不能进入，请重新输入。

3.1 Password function key: during parameter regulation, press ? or * key, the keyboard will appear; enter the password “2222” through the keyboard and press Enter key; press the Enter key again to enter 11 menus of parameter regulation; if the password is wrong, enter the password again.

3.2 参数调整

3.2 Parameter regulation

第一个画面：

First menu:

调节压轮正转速度，调节范围 1-24.8 分钟/米，点动*号键输入需要速度，按回车键。“←”

Regulate the positive rotation speed of pinch wheel with regulation range of 1-24.8min/m; press * key

to enter required speed and press Enter key “↵”.

第二个画面：

Second menu:

调节压轮反转速度，点动*号键输入需要速度，按回车键。“↵”

Regulate the reverse rotation speed of pinch wheel; press * key to enter required speed and press Enter key “↵”.

第三个画面：

Third menu:

调节微退速度，点动*号键输入需要速度，按回车键。“↵”

Regulate the speed of backlash: press * key to enter required speed and press Enter key “↵”.

第四个画面：

Fourth menu:

调节送带速度，点动*号键输入需要速度，按回车键。“↵”

Regulate the speed of tape feeding: press * key to enter required speed and press Enter key “↵”.

第五个画面：枪轮同步延时。

Fifth menu: synchronizing relay of gun and wheel.

调节热风枪与压轮起动同步工作和功能说明。点动*号输入需要延时时间单位 0.01 秒，按回车键“↵”功能；为配合热风枪摆入时与压轮起动时间的快慢，达到热风枪与压轮同步起动，如工作中出现热风枪摆入时引起烧断缝线，烧断胶带时，必须把数值减少，停顿时布面上出现空白把数值增加，数值调节范围 1-100。点动*号键输入需要延时时间，按回车键。“↵”

Regulate the synchronous working of heating gun and pinch wheel and functional description. Press * key to enter the required time with unit of 0.01 second and press Enter key “↵”. In order to match the swinging in of heating gun and starting of pinch wheel for the synchronous starting of heating gun and pinch wheel; if the swinging-in of heating gun causes the breakage of seam and tape, decrease the number; if the blank occurs on the clothing, increase the number; the regulation range of number is 1-100; press * key to enter required delay time and press Enter key “↵”.

第六个画面：压轮与热风枪摆出同步。

Sixth menu: synchronous swing-out of pinch wheel and heating gun

调节热风枪与压轮停止同步和功能说明。功能：滚轮停止延时为配合热风枪摆出时与压轮停止的同步，达到热风枪摆离胶轮，而压轮应马上停止，如工作中出现烧断缝线，烧断胶带，必需把数增加，如出现空白把数值减少，调节范围 1-20。点动*号键输入需要延时时间，按回车键。“←”

Regulate the synchronous stopping of heating gun and pinch wheel and functional description. Function: The stopping delay of idle wheel is to match the synchronous swing-out of heating gun and stopping of pinch wheel, so that when the heating gun swings out of tape wheel, the pinch wheel will stop immediately; if the breakage of seam and tape occurs during operation, increase the number; if the blank occurs, decrease the number; the regulation range is 1-20; press * key to enter required delay time and press Enter key “←”.

第七个画面：微退延时。

Seventh menu: backlashing delay

调节停顿时滚轮微退延时和功能说明。功能：防止停顿时布面上产生空白，因为两轮转动时突然停止下来，压轮转动已负带着转向的惯性而引起热封胶带和布面上的空白，如果调节量过大，会烧断胶带，调节量过小会产生空白，调节范围 1-100。点动*号键输入需要延时时间，按回车键。“←”

Regulate the backlashing delay of idle wheel during pausing and functional description: Function: to prevent the blank on the clothing during pausing, as when the two wheels stop suddenly, the pinch wheel has the inertia to cause the blank on the adhesive tape and clothing; if it's set too long, it will cause tape breakage; if it's set too short, it will cause blank; the regulation range is 1-100; press * key to enter required delay time and press Enter key “←”.

第八个画面：剪刀延时。

Eighth menu: scissor delay

调节剪刀快慢延时和功能说明。功能：使用自动剪带时剪刀剪合和打开快慢，确保把胶带剪断，调节范围 5-100。点动*号键输入需要延时时间，按回车键。“←”

Regulate the delay of scissor and functional description. Function: under automatic tape cutting, regulate the speed of scissors closing and opening to ensure the cutting of tape; the regulation range is 5-100; press * key to enter required delay time and press Enter key “←”.

第九个画面：带尾完成延时。

Ninth menu: tape trailer completion delay

调节自动剪带后带尾完成延时和功能说明。功能：使用自动剪带功能，确保剪带后，自动把带尾压完，调节范围 1-120。点动*号键输入需要延时时间，按回车键。“←”

Regulate the delay of tape trailer completion after automatic tape cutting and functional description. Function: use the function of automatic tape cutting to ensure that the tape trailer is pressed after tape cutting; the regulation range is 1-120; press * key to enter required delay time and press Enter key “←”.

第十个画面：送带长短延时。

Tenth menu: tape feeding delay

调节自动剪带后送带长短延时和功能说明。功能：使用自动剪带功能之后，再把胶带头送下来的长短，要求把带头送到上柱压轮的半径底部即好，送带调节范围 1-100。点动*号键输入需要延时时间，按回车键。“←”

Regulate the delay of tape feeding after automatic tape cutting and functional description. Function: after the automatic tape cutting, feed the tape head to the bottom of upper column pinch wheel; the regulation range of tape feeding is 1-100; press * key to enter required delay time and press Enter key “←”.

第十一画面：

Eleventh menu:

维修热风机时，可进行自动试验。自动剪带功能键，按下自动剪带功能键三秒钟。关闭自动剪带功能，热风机只能用手动剪带，再按三秒钟自动剪带键，自动剪带功能打开，可进行自动剪带或手动剪带。

During repairing of air heater, the machine could be tested automatically. Press the automatic tape cutting key for three seconds to close the function of automatic tape cutting, the tape could only be cut manually; press the automatic tape cutting key for three seconds again to start the function of automatic tape cutting, so the tape could be cut automatically or manually.

4. 第二个主画面操作规程键，按下操作规程键，可进入热风机的操作说明画面。故障查询键可帮助检查热风机故障功能。

4. The second main menu shows the operation instruction key; press the operation instruction key to

enter the menu of operation instruction. The troubleshooting key could help with the inspection of malfunction of air heater.

5. 关机，把主画面上的加热开关关闭，再把热风机电源开关关闭，热风机进入自动关机状态，延时 8 分钟后自动关机。如长时间不使用请把总电源关闭。

5. Shut down: turn off the heating switch on the main menu and turn off the power switch of air heater, so that the machine will enter the state of automatic shut down and it will shut down automatically in 8 minutes. If the machine will not be used for a long time, it's recommended to turn off the main power.

3.3 操作注意事项

3.3 Operation notice

3.3.1 操作前一定要熟悉本机原理、结构及相关性能参数，上岗前经过了相关的操作培训。

3.3.1 Before the operation, it's necessary for operators to be familiar with the principle, structure and performance parameters of the machine and to receive the operation training.

3.3.2 首先要有保证产品质量的意识，确保防水热封胶带粘贴良好在面料缝口上。

3.3.2 First the operators should have the consciousness of ensuring product quality to ensure the water-proof adhesive tape will adhere to the seam of clothing well.

3.3.3 注意根据粘合面料和热封胶带设置好速度，切不可盲目太快，否则直接影响粘合效果。

3.3.3 Pay attention to set the speed according to the clothing and heat-sealing adhesive tape; the speed should not be too fast; otherwise it will directly affect the adhesion result.

注意根据粘合面料和热封胶带设定温度，不可将温度设定太高，否则直接影响发热丝寿命。

Pay attention to set the temperature according to the clothing and heat-sealing adhesive tape; the temperature should be not too high; otherwise it will directly affect the life-span of heating coil.

3.3.4 生产过程中要留意设定的各种参数（主要是温度、速度和压力）有无变化，尤其是中途停机后。

3.3.4 Pay attention to the changes of all parameters (mainly temperature, speed and pressure) during the operation, especially after a break.

3.3.5 发热管在加热过程中，切不可快速调大风量，否则容易烧坏发热内管。发现设备有故障，要及时通知维修人员进行维护。

3.3.5 During the heating process of heating tube, it's prohibited to increase the air output quickly;

otherwise it's easy to burn the inner heating tube. Inform the maintenance staff to make maintenance in time if the machine is found to go wrong.

3.3.6 为了保证热封压带的质量和效果，大件产品最好是两人配合，前面一人开机，后面一人辅助拉。

3.3.6 In order to ensure the quality and result of heat-sealing tape pressing, it's better for two operators to cooperate with large-piece product; one operator responsible for operating the machine and other operator responsible for pulling.

3.3.7 防水热封胶带压下时要对准面料缝口，开机人员要掌握好面料过去方向，尽量将缝口对准压轮正中，不可跑歪。

3.3.7 Align the clothing seam when pressing the water-proof heat-sealing adhesive tape; the operator shall know the original direction of the clothing and align the seam in the middle of pinch wheel without deviation.

3.3.8 后面辅助人员拉住压带后的产品不往上卷进上压轮即可，要保持让压轮自然运转。

3.3.8 The supporting staff pulls the clothing with pressed tape to ensure the clothing will not be stuck in the upper pinch wheel and keep the pinch wheel move spontaneously.

3.4 关机程序

3.4 Shut down procedure

3.4.1 提前 5 分钟按下加热开关 3 秒。

3.4.1 Press the heating switch for 3 seconds 5 minutes in advance.

3.4.2 关闭电源开关，风机会根据程序设定的时间延时将发热管吹冷却后关闭，一般设定为 5 分钟。

3.4.2 Turn off the power supply switch and the blower fan will turn off after cooling the heating tube according to the preset delay of 5 minutes.

3.4.3 风机停止后可关闭总电源漏电空气开关及稳压器。

3.4.3 After the blower fan is stopped, it's possible to turn off the main power supply air switch and voltage stabilizer.

3.4.4 关空气压缩机电源开关，打开空气压缩机底排气阀，将气罐内的存气及水分全部排清。

3.4.4 Turn off the power switch of air compressor and open the exhaust valve at the bottom of air compressor to exhaust the air and water in the air tank.

3.5 日常保养工作

3.5 Routine maintenance

3.5.1 不论天气干燥或潮湿，每天一定要排清空气压缩机气罐内的存气和水分。

3.5.1 No matter whether it's dry or humid, it's necessary to exhaust the air and water in the air tank of air compressor every day.

3.5.2 对于机械每个活动的位置（如链条、齿轮、轴承、滑块等等），要定期加上润滑油。

3.5.2 Lubricate every moving mechanical position (such as chain, gear, bearing and slider, etc) of the machine regularly.

3.5.3 往油雾器油杯内加入适量气动润滑油（7# 机油）。

3.5.3 Add certain amount of pneumatic lubricant (7# engine oil) into the oil cup of atomized lubricator.

3.5.4 清理布碎、线条，防止卷入机械，影响机械的正常运转。

3.5.4 Clean the rags and threads to prevent entanglement to ensure the smooth operation of the machine.

4. 安装调试

4. Installation and commissioning

我们知道，凡是一台新安装好的机械设备，都一定要严格按照安装技术要求去调整调试后，才能正常运转工作。

It's known that one newly installed mechanical equipment could work smoothly only after the commissioning according to the strict installation requirement.

4.1 安装调试检查

4.1 Inspection before installation and commissioning

4.1.1 检查机械各零件部分在运输途中有无引起松动。

4.1.1 Inspect whether the mechanical components become loose during the shipment.

4.1.2 检查电器部分线头有无松散、短路。

4.1.2 Inspect whether the wirings become loose or short circuit.

4.1.3 检查输入电源电压是否是 AC-220V。

4.1.3 Inspect whether the input supply voltage is AC-220V.

4.1.4 检查总气源是否达到 3.5 kg/cm^2 。

4.1.4 Inspect whether the air supply reaches 3.5 kg/cm^2 .

4.1.5 检查总压力表的气压是否达到 $3-3.5 \text{ kg/cm}^2$ 。

4.1.5 Inspect whether the pressure of total pressure gauge reaches $3-3.5 \text{ kg/cm}^2$.

4.1.6 检查油雾器的油杯是否已加入适当的润滑油。

4.1.6 Inspect whether the oil cup of atomized lubricator is added with suitable lubricant.

4.1.7 检查热风枪摆入时枪嘴有无碰着上下压轮。

4.1.7 Inspect whether the nozzle touches the upper and lower pinch wheels during swinging-in of heating gun.

4.1.8 检查各控制气路有无漏气。

4.1.8 Inspect whether the control air circuits have leakage.

4.2 安装调试内容

4.2 Installation and commissioning description

4.2.1 在热风机台板的右下方，装有一套油雾器总成，油雾器总成的滤水器上有一个气源的接口，此接口用

于连接压缩空气源，首先接驳好空气压缩机输入压缩气源，调好总气压为 $3\text{kg}-3.5\text{ kg/cm}^2$ ，并注意往油雾器油杯内加注气动润滑油。

4.2.1 A set of atomized lubricator assembly is installed at the low right of air heater table, and the water filter of atomized lubricator assembly has an air supply interface to connect the compressed air source. Connect the compressed air source from air compressor first and regulate the total air pressure to be $3\text{kg}-3.5\text{ kg/cm}^2$ and pay attention to add the pneumatic lubricant into the oil cup of atomized lubricator.

4.2.2 本机使用前应独立安装一个 AC-220V、20A 的漏电开关。若电源电压不稳定的地区需曾置一个 3KVA 自动稳压器，以免影响本机工作的稳定性。

4.2.2 It's necessary to install an AC-220V, 20A independent anticreeping switch before starting the machine. If the local supply voltage is not stable, it's necessary to install a 3KVA voltage stabilizer in order not to affect the stability of the machine.

4.2.3 紧固机械各部件零件螺丝、检查电器各部分线路接头及各控制气路有无泄漏。

4.2.3 Fasten the screws of all mechanical components, inspect the wiring connection of electrical components and whether the control air circuits have leakage.

4.2.4 气压调试

4.2.4 Air pressure commissioning

开启电箱总电源空气漏电开关及电箱正前电源开关，踏下左脚踏，上压轮下压，要求上压轮的压力是 $1-1.5\text{ kg/cm}^2$ 之间。检查方法是连续踏动左脚踏，观察上柱压力表指针。调整方法是用手拉出调压阀的手柄后旋转，顺时针加大，反时针减小，当指针到 $1-1.5\text{ kg/cm}^2$ 即可。

Start the main power air switch of electric box and the power switch in front of electronic box, step down the left pedal and press down the upper pinch wheel; the pressure of upper pinch wheel is required to be $1-1.5\text{ kg/cm}^2$. The inspection method is to step down the left pedal continuously and observe the index of upper column pressure. The regulation method is to pull out the handle of pressure regulating valve manually and rotate; rotate clockwise is to increase the pressure and rotate anticlockwise is to decrease the pressure; the pressure is fine when the index reaches $1-1.5\text{ kg/cm}^2$.

注意：当上柱气缸压下后只能调大压力，如果调小压力则密封住排气而造成压力表无法复位。

Note: when the air cylinder of upper column is pressed down, it's only possible to increase the

pressure; trying to decrease the pressure could only seal up the exhaust, so the pressure gauge could not be reset.

4.2.5 摆枪调试

4.2.5 Commissioning of swinging gun

A. 摆枪快慢流畅调试：踏下左脚踏，再反复踏下右脚踏让热风枪摆进摆出，观察摆枪运动是否平稳流畅，如摆枪不顺，可调节摆枪气缸两端的限流阀，顺时针调节越慢，反时针调节越快，直至摆进摆出都流畅为止。

A. Speed and smoothness commissioning of swinging gun: step down the left pedal and step down the right pedal repeatedly to make heating gun swing in and out to observe whether the swinging gun moves smoothly; if it doesn't move smoothly, it's possible to regulate the flow restrictors at two ends of swinging gun cylinder; regulate it clockwise to make it slower and regulate it anticlockwise to make it faster until the swinging gun moves smoothly.

B. 摆枪震动调试：观察热风枪摆出有无出现较大的震动，可调节避震器位置。

B. Vibration commissioning of swinging gun: observe whether the heating gun vibrates strongly when it swings out and it's possible to regulate the position of damper.

4.2.6 上压轮升降调试

4.2.6 Lifting commissioning of upper pinch wheel

踏下左脚踏，观察上柱（上压轮）运动是否平衡流畅，如升降不顺，可调节上柱气缸限流阀和滑块顶紧螺丝。

Step down the left pedal and observe whether the upper column (upper pinch wheel) moves smoothly; if not, it's possible to regulate the flow restrictor of upper column cylinder and fastening screw of slider.

A. 上柱气缸限流阀调节与摆枪气缸限流阀调试相同。

A. The regulation of flow restrictor of upper column cylinder is the same as that of flow restrictor of swinging gun cylinder.

B. 滑块顶紧螺丝可调节上滑块与滑块座之间的间隙，间隙太小容易造成压轮升降不顺，间隙太大容易造成虚位，注意在调试时两方面都有考虑。

B. The slider fastening screw could regulate the clearance between upper slider and slider holder; if the clearance is too small, it's easy to cause the unsmooth lifting of pinch wheel; if the clearance is too large, it's easy to cause the blank position. Pay attention to this during commissioning.

注：滑块顶紧螺丝在出厂前经过专业技术人员调试，勿随意擅自调整。

Note: the slider fastening screw has been commissioned by the specialized technician before delivery. Do not regulate it without permission.

4.2.7 热风枪嘴与压轮位置调试

4.2.7 Commissioning of heating gun nozzle and pinch wheel position

A. 松开前后紧固螺丝，调节前后调节螺丝，使热风枪嘴与上压轮边距离达到 2-4mm 之间的位置后锁紧前后固定螺丝即可。

A. Loosen the front and rear fastening screw and regulate the front and rear adjusting screw to make the heating gun nozzle 2-4mm away from the upper pinch wheel and then fasten the front and rear fastening screw.

B. 松开热风枪的上下固定螺丝，调节上下升降调节螺丝，使热风枪上升或下降到下压轮切线上 4-6mm 后，锁紧上下固定螺丝即可。

B. Loosen the upper and lower fastening screw of heating gun and regulate the upper and lower adjusting screw to make heating gun 4-6mm away from the tangent line of lower pinch wheel, and then fasten the upper and lower fastening screw.

C. 枪嘴左右位置调整，松开左右固定螺丝，调节左右调节螺丝，使枪嘴与压轮平行对正后锁紧左右固定螺丝。

C. Regulation of left and right position of gun nozzle: loosen the left and right fastening screw and regulate the left and right adjusting screw to make the nozzle parallel with pinch wheel, and then fasten the left and right fastening screw.

D. 如在冷机加热的情况下已基本达到上述技术要求，此时我们可以设定好温控表的发热管温度，按下控制面板上的加热键三秒钟，也即是给发热管接通电流，当温控表显示温度在 550℃-700℃之间时再检查热风枪嘴与压轮的距离，是否在要求的前、后、上、下尺寸之间，如果不符合技术要求，再作热风枪的调整。

注意：热风枪易受热胀冷缩而发生变化，如冷机未加热时调好的热风嘴与压轮距离尺寸在加热过程中可能

发生变化，加热之后还需要按原来的调整步骤重复调一次，达到所要求的理想位置即可。

D. When the cold machine is heated to basically meet the above-mentioned technical requirements, it's possible to set the temperature of heating tube: press the heating key on the control panel for three seconds, i.e., connect the current to the heating tube. When the temperature controller shows the temperature of 550℃-700℃, inspect whether the distance between gun nozzle and pinch wheel meets the requirement of front, rear, upper and lower distance. If it doesn't meet the technical requirement, readjust the heating gun.

Note: the heating gun is prone to change due to "expand when hot and shrink when cold". The regulated distance between the nozzle and pinch wheel when the cold machine is not heated will change during the heating process, so it's necessary to repeat the regulation procedure to reach the required distance.

4.3 调试后的技术要求

4.3 Technical requirement after commissioning

4.3.1 压缩机输入气源应在 3.5 kg/cm² 以上。

4.3.1 The input air supply of compressor shall be above 3.5 kg/cm².

4.3.2 总气压应在 1-1.5 kg/cm² 之间。

4.3.2 The total air pressure shall be between 1 and 1.5 kg/cm².

4.3.3 上柱压轮压力应在 1-1.5 kg/cm² 之间。

4.3.3 The pressure of upper column pinch wheel shall be between 1 and 1.5 kg/cm².

4.3.4 油雾器油量应在最低和最高油面线之间。

4.3.4 The oil level of atomized lubricator shall be between the highest and lowest level.

4.3.5 上轮升降应流畅自如，无较大震动，没有急速碰击响声。

4.3.5 The lifting of upper wheel shall be smooth without strong vibration and rapid impact noise.

4.3.6 上、下两胶轮压合时，两胶轮边缘应平行对齐。

4.3.6 When the upper and lower wheels are pressed together, the edges of two wheels shall be parallel.

4.3.7 微退要求

4.3.7 Backlashing requirement

踏下左脚踏，再踏下右脚踏，压轮运转后放开右脚踏，观察上下压轮是否有少许反转即微退。微退在

生产过程中不可以没有，是消除压带空白的主要动作。

Step down the left pedal and then step down the right pedal. Loosen the right pedal after the pinch wheel moves and observe whether the upper and lower pinch wheels have some reverse rotation, i.e. backlash. Backlash is necessary, as it is the main action to eliminate the blank of pressing tape.

4.3.8 摆枪要求

4.3.8 Requirement of swinging gun

热风枪摆进摆出应该是畅顺自然，速度不快不慢，不可听到有急速碰击声。

The swinging in-out of heating gun shall be smooth and spontaneous, the speed shall be moderate and it shall be free of rapid impact noise.

4.3.9 传动技术要求：

4.3.9 Requirement of drive technology

检查虚位应尽量小（用一只手抓住一个压轮，用手再用力扭转另一压轮，两压轮转动的空隙量即为虚位），虚位太多压带时则容易产生空白。

Inspect to ensure the least blank position (use one hand to catch one pinch wheel and use the other hand to rotate the other pinch wheel and the voidage of rotation of two pinch wheels is the blank position). Too much blank position is prone to generate blank.

检查整机各传动链条是否松紧适度，各个项链齿轮、链轮、十字万向节的紧固螺丝没有松动。

Inspect whether the drive chains of complete machine are tightened correctly and whether the fastening screws of sprocket gear, sprocket wheel and universal joints are loose.

4.3.10 发热丝（内管）和发热外管不可松动，发热内管与外管进风口要对正。

4.3.10 The heating coil (inner tube) and outer heating tube shall not be loose and the inner heating tube shall be aligned with air inlet of outer tube.

4.3.11 各控制气路要求密封不漏气。

4.3.11 All control air circuits are required to be sealed without leakage.

4.3.12 正常的热风枪嘴与上下压轮前摆 20 度角，在压轮压合两轮的切线之上 4-6mm 调节，枪嘴与上轮边为 2-4mm 之间调节。但可根据生产防水面料与热封胶带不同来调节热风枪与两压轮之间的距离，以调节到粘贴的要求为准。

4.3.12 The heating gun nozzle shall be located 20 degrees to the parallel line of upper and lower pinch wheel and the heating gun shall be adjusted to be 4-6mm above the centerline of upper and lower pinch wheel and 2-4mm away from the upper pinch wheel. But the distance between the heating gun and two pinch wheels could be regulated according to the water-proof clothing material and heat-sealing adhesive tape to meet the requirement of adhesion.

4.3.13 要求枪嘴口与上下压轮边缘横向平行，如不平行则会引起压带时一边粘不上。

4.3.13 It's required that the gun nozzle should be horizontally parallel with the edges of upper and lower pinch wheels. If it's not parallel, it will cause one side of tape not to be adhesive.

注意：由于被密封材料厚薄不同、热封胶带不同、操作者熟练程度不同、环境气候不同，任何一点变化都会直接影响所生产的产品效果。本机变化因素主要有以下几点，特请调试人员注意掌握：

Note: As the different thickness of clothing materials, different heat-sealing adhesive tapes, different competence of operators and different environmental climates will directly affect the product quality. The commissioning staff shall pay attention to the main change elements as following:

A. 加热温度可调节。

A. The heating temperature is adjustable.

B. 总气压可调、上轮压力可调节。

B. The total air pressure is adjustable and pressure of upper wheel is adjustable.

C. 风量大小可调节。

C. The air output is adjustable.

D. 热风枪嘴与上下轮间距离可调节。

D. The distance between gun nozzle and upper and lower wheels is adjustable.

5. 检修及维护

5. Repair and maintenance

5.1 检查及维护项目

5.1 Inspection and maintenance item

5.1.1 气路检修

5.1.1 Air circuit repair

A. 检查总气源应保持 $3.53.5 \text{ kg/cm}^2$ 。

A. Inspect to ensure the total air supply shall maintain the pressure of 3.5 kg/cm^2 .

B. 检查总气压调压阀，拉出总调压阀手把，调节一圈后，如总压力表的指针没变，就要清洗滤水杯内的污物。

B. Inspect the total air pressure regulating valve: pull out the handle of total air pressure regulating valve and rotate the handle one round; if the index of total pressure gauge, it's necessary to clean the water filtration cup.

C. 检查各气缸限流阀是否松动变动。

C. Inspect whether the flow restrictors of air cylinders become loose.

D. 检查气管是否老化、损坏、松动漏气。

D. Inspect whether the air pipes are aging, damaged, loose and leakage.

E. 检查油雾器油杯是否有足够气动润滑油（7#机油）。

E. Inspect whether the oil cup of atomized lubricator is of enough pneumatic lubricant (7# engine oil).

5.1.2 电路检修

5.1.2 Electric circuit repair

A. 对本机电气控制系统的一切安装、维护和检修工作，一定要遵守国家的有关安全规定，以免出现设备和人身事故。

A. The installation, maintenance and repair of the electric control system of this machine should be in compliance with the national safety regulation to prevent the equipment and fatal accident.

B. 在故障后更换元器件时，一定要尽量选用与原件相同型号或同等元器件。

B. When it's necessary to replace the electric component, try to select the same type component as original piece or equivalent component.

C. 定期停机对电气控制柜内部进行清洁工作（视现场情况）。

C. Clean the interior of electric control cabinet regularly when the machine is shut down (depending on the condition of working field).

D. 定期停机对电气控制系统各接线端子进行紧固。

D. Fasten the connecting terminals of electric control system regularly when the machine is shut down.

E. 为防止损坏 PLC、显示和操作面板，请不要在通电情况下插拔 PLC 与显示和操作面板的连接电线。

E. To prevent the damage of PLC, display panel and operation panel, do not plug and pull the connecting wires between PLC and display panel and operation panel when the power is on.

F. 对于不能排除的故障，请及时与本公司的驻全国各地的服务网络联系。

F. If the trouble could not be solved, please contact our service network all over the country in time.

G. 本公司对任何违反安全操作和检修规程（见国家有关标准）所造成的后果不负任何责任。

G. We're not responsible for the consequences caused by violation of safety operation and repair regulation (refer to relevant national standards).

5.1.3 机械部分检修

5.1.3 Repair of mechanical components

A. 检修各个传动链轮是否变位、松动，如果有应校正或紧固链齿上的顶丝。

A. Inspect whether all the drive sprockets are moved or loose; if so, adjust or fasten the screw of sprocket.

B. 检查链条是否过松或过长，应调节顶链张力或调整轴承座距离，如调整后都没有消除，应把链条拆短。

B. Inspect whether the chain is too loose or too long; adjust the chain tension or adjust the distance of bearing support; if the trouble could not be solved after the adjustment, shorten the chain.

C. 检查热风枪嘴口与上柱胶轮是否平行对正，如果没有平行和不在中间，应按前面所讲的调试方法进行调整。

C. Inspect whether the heating gun nozzle is parallel and aligned with upper column wheel; if it's not parallel and aligned, make adjustment according to the above-mentioned method.

D. 检查上柱升降是否流畅或虚位是否过大。

D. Inspect whether the lifting of upper column is smooth or the blank position is too big.

注意：机械尽管是多么的耐用，在长期的使用后会发生不同程度的磨损，造成机械运动动作失常，如不及时加以检修及维护，必定会引致某些零件的严重损坏，而无法修复，所以需要维修保养人员熟悉和了解它，做好日常保养和定期维护，严格按照技术要求进行调试和维护，这样才能延长设备的使用寿命。

Note: No matter how durable the mechanical part is, it will generate the wearing after long-term usage to cause abnormal mechanical movement and if it's not repaired in time, it will cause the serious damage of

some components, which could not repaired, so it's necessary for maintenance staff to be familiar with them and make daily maintenance and routine maintenance strictly according to technical requirement to prolong the service life of the machine.

5.2 常见故障及消除

5.2 Common trouble and troubleshooting

5.2.1 热封胶带与防水面料贴不良。

5.2.1 Bad adhesion of heat-sealing adhesive tape and water-proof clothing

故障原因：

Cause:

A. 封胶带与防水面料贴搭配不适合，例：防水面料是 PU 涂层，热封胶带是 PVC,因为这两种材料成份不同，所以是不粘合的。

A. Improper matching of adhesive tape and water-proof clothing, for example: when the water-proof clothing is PU coating and the adhesive tape is PVC, the components of these two materials are different, so they're not adhesive.

B. 排除材料的原因，热封管枪嘴与上压轮的距离问题（过远、过高或过低）、枪嘴内有杂物堵塞，压轮转速太快、热风温度太低，风量过小等都会影响粘贴不良。

B. When the materials are correct, the bad adhesion could be caused by the distance between heating gun nozzle and upper pinch wheel (too far, too high or too low), blocking of gun nozzle, too fast rotation of pinch wheel, too low temperature of hot air and too low air output.

排除方法：

Troubleshooting:

A. 确认防水面料涂层与热封胶带成份相同，更换热封胶带。

A. Confirm the same components of water-proof clothing coating and heat-sealing adhesive tape and change the heat-sealing adhesive tape.

B. 清理热风嘴污物并调试好枪嘴的距离，重新设置温度速度。

B. Clean the dirt inside the gun nozzle and regulate the distance of gun nozzle and reset the temperature and speed.

5.2.2 压轮转动虚位过大，压带产生空白。

5.2.2 Too much blank position during rotation of pinch wheel and tape pressing generates the blank.

原因：

Cause:

A. 传动链过松或磨损变长。

A. The drive chain is too loose or too long due to wear.

B. 齿轮、万向节磨损。

B. Wear of gear and universal joint.

C. 上下压轮轴与压轮径向产生虚位。

C. The blank position occurs at upper and lower pinch wheel bearing and radial direction of pinch wheel.

排除方法：

Troubleshooting:

A. 调紧每条链条。

A. Fasten each chain.

B. 更换齿轮、万向节。

B. Replace the gear and universal joint.

C. 更换压轮并与压轮轴紧密配合。

C. Replace the pinch wheel and make it fit with pinch wheel bearing.

5.2.3 上柱升降滑动不到位或不顺畅稳定。

5.2.3 The upper column could not be lift to the right position or moves unsmoothly and unstably.

原因：

Cause:

A. 气压不够或限流阀未调好。

A. The air pressure is not enough or the flow restrictor is not regulated well.

B. 滑块座旁边的三个顶紧螺丝没有调好（太紧）。

B. The three fastening screws beside the slider support are not regulated well (too tightly).

C. 排气消声网有污物塞住。

C. The exhaust muffling net is blocked with dirt.

排除方法：

Troubleshooting:

A. 调节气压、排除漏气或重新调整限流阀。

A. Regulate the air pressure, repair the leakage or readjust the flow restrictor.

B. 加黄油伴机油到滑块座滑动位置。

B. Add the lubricant to the moving part of slider support.

C. 清洁消声网污物。

C. Clean the dirt in the muffling net.

5.2.4 温控表数值正常工作中偏差过大或现“□□□□”闪烁。

5.2.4 Too much deviation of value of temperature controller or the temperature controller displays “□□□□” during normal operation.

原因：

Cause:

A. 感温线损坏或补偿导线某位置断开。

A. The temperature sensing wire is damaged or the compensation lead wire breaks up somewhere.

B. 重新设置温控表参数。

B. Reset the parameters of temperature controller.

5.2.5 剪带不断。

5.2.5 The tape could not be cut off.

原因：

Cause:

A. 剪刀不锋利。

A. The scissors are not sharp.

B. 剪刀架弹簧过松和弹力失效。

B. The spring of scissor support is too loose or fails.

C. 气压不足或漏气。

C. The air pressure is not enough or it leaks.

排除方法：

Troubleshooting:

A. 更换或修磨剪片。

A. Replace or sharpen the scissors.

B. 更换或调节弹簧。

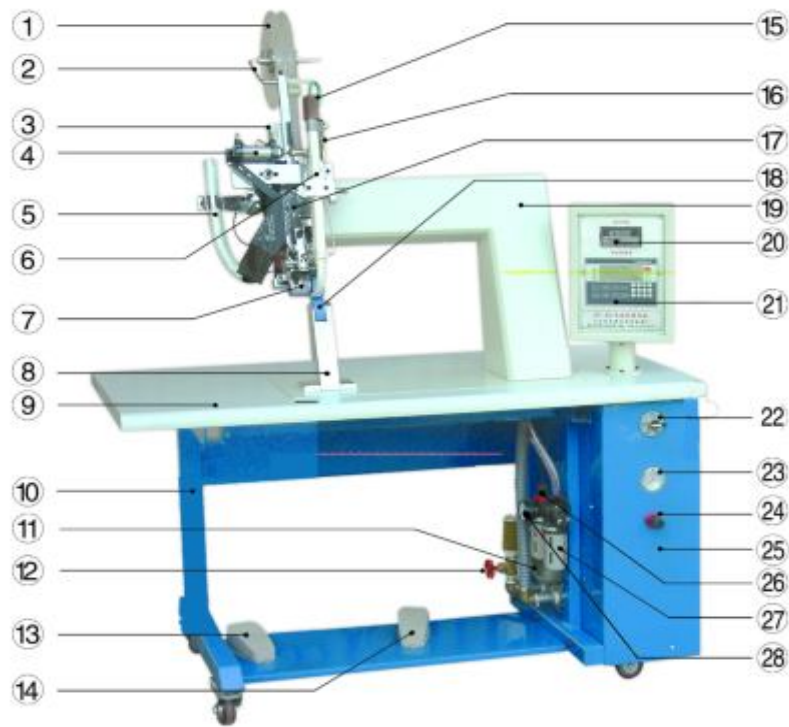
B. Replace or adjust the spring.

C. 调节气压、检查气路。

C. Regulate the air pressure and check the air circuit.

除了以上所述常见故障外，在长期的生产工作中，可能还存在一些本公司没有发现的其它客观存在问题，敬请用户在发现问题无法自行解决时，请与本公司联系，同时也欢迎贵公司/工厂将在生产中对本公司设备的使用效果及性能反馈回本公司。

Besides the above-mentioned common troubles, the other troubles which are not found by our company exist during the long term production. Please contact us when you can't solve the problems by yourselves. We'd like to receive your feedback about your impression on our machine and performance of our machine from you.



- | | | | |
|------------------------------|---------------------------------|----------------------------|---|
| 1.胶盘带 | 8.下柱 | 15.发热管帽 | 22.电源开关 |
| 1. Tape | 8. Lower column | 15. Heating tube cap | 22. Power switch |
| 2. 胶带架 | 9.台板 | 16.软骨风管 | 23.上压轮压力表 |
| 2. Tape support | 9. Table | 16. Air tube | 23. Pressure gauge of upper pinch wheel |
| 3.上柱气缸 | 10.脚架 | 17.防护罩 | 24.上压轮调节阀 |
| 3. Upper column air cylinder | 10. Foot support | 17. Protective cover | 24. Regulating valve of upper pinch wheel |
| 4.摆枪气缸 | 11.风机 | 18.下压轮 | 25.电箱 |
| 4. Swinging gun air cylinder | 11. Blower fan | 18. Lower pinch wheel | 25. Electric box |
| 5.排风管 | 12.风量调节阀 | 19.曲尺盖 | 26.总压力调节阀 |
| 5. Exhaust tube | 12. Air output regulating valve | 19. Trisquare cover | 26. Total pressure regulating valve |
| 6.发热管 | 13.左踏脚 | 20.温控表 | 27.油雾器 |
| 6. Heating tube | 13. Left pedal | 20. Temperature controller | 27. Atomized lubricator |
| 7.上柱 | 14.右踏脚 | 21.控制中心 | 28.总压力表 |
| 7. Upper column | 14. Right pedal | 21. Control center | 28. Total pressure gauge |