CATALOGUE

目录

第一章 包装机的使用安全事项

Chapter 1 Safety of Use of Packaging Machines

Please read the operating manual carefully before powering on, as incorrect connections may result in equipment damage or personal injury.
If you do not know the specific installation requirements of the equipment, please contact the manufacturer's technical staff or local office.

There is a high pressure inside the packaging machine. In order to prevent accidents, the packaging machine and its accessories need to be opened by related electrical appliances.
Professionals operate and contact the manufacturer's technical staff or local office.

请在通电前仔细阅读操作手册，因为错误的连接可能会导致设备损坏或人员的伤害。

如果不清楚设备具体安装要求，请与厂家技术人员或当地办事处联系。

包装机内部有高压，为防止意外事故的发生，打开包装机及其附件需由相关电器专业人员操作并与厂家技术人员或驻当地办事处联系。

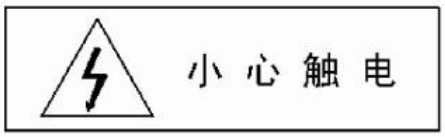
1.1 Security logo

Precautions and warnings

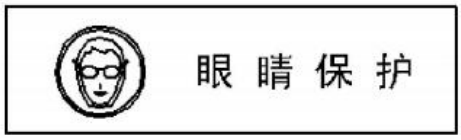
1.1 安全标识

注意事项与警告

标识名称：



设备内有高电压，不要在通电的情况下触摸接线柱和电器部件，在打开箱盖时，必须切断外界电源。为安全起见，请将设备妥善接地。请用可切断式供电方式供电，而且必须选用合适的电线以防过电流和高温，为防止事故，务必使用说明书中规定电压和保险丝，尽可能在橡皮垫上操作，请注意防水，不要在湿度较大的环境中通电。



1.2 General safety rules

Installation and safe operation

Please read the operation manual carefully before powering on. The wrong connection will result in damage to the equipment.

For installation requirements, please contact the manufacturer's technical staff or local office.

Please carefully check the equipment power switch and check if the cover and socket are properly installed and connected.

Do not place anything on the machine to affect operation.

Empty heating is avoided too many times, otherwise it will easily cause aging of the sealing heating wire.

1.2 一般安全规则

安装与安全操作

请在通电前仔细阅读操作手册，错误的连接将导致设备的损坏，如果不清楚设备具体安装要求，请与厂家技术人员或当地办事处联系。

请认真检查设备供电开关，检查外罩及插座等是否正确安装和连接。
请勿机器上放置任何东西而影响运作。
空加热避免次数过多，否则会容易造成封口加热丝老化。

第二章　包装机设备概述 Chapter II Overview of Packaging Machine Equipment

2.1 Description

The packaging machine is designed in metric standards. The control panel sets parameters using the touch screen.

The packaging machine has a variety of export rules. The control terminal can automatically alarm and prompt for operational errors and faults.

These advanced features increase the life of the packaging machine, ensuring the performance of the packaging machine and reducing downtime.

The packaging machine adopts a water circulation cold method to ensure that the temperature of the sealing part is too high to adhere to the bag waste.

There are various anti-interference measures for the control terminal of the packaging machine. The control system can be interlocked with the mother machine and automatically started, which is more in line with the requirements of the production process. The parameter setting and adjustment are simple and convenient.

The external compressed air pressure that can be used by the packaging machine can be freely adjusted by the input air source.

2.1 说明

包装机采用公制标准设计。控制面板为采用触摸屏设定参数。

包装机有多种出口规则设计。控制终端能自动对操作失误和故障进行报警和提示。

这些先进的功能增加了包装机的使用寿命，保证了包装机的性能，减少停机时间。

包装机采用水循环冷确方式，以确保封口部位温度过高粘连袋口废料。

包装机控制终端有多种防干扰措施，控制系统可与母机联锁、自动启动，更符合生产工艺的要求，参数设置和调整简单方便。

包装机可使用的外部压缩空气压力高低由输入气源处器可自由调整。

2.2 Specification data

2.2 规格数据

working environment

Storage/transport temperature..... -30° C to 50° C

Daily working environment temperature.....-15° C to 40° C

Environmental noise.....<30 decibels (in the range of 1 meter, no solenoid valve working noise)

工作环境

保管/运输温度…… -30℃至 50℃

日常工作环境温度……-15℃至 40℃

环境噪音……<30 分贝（在 1 米范围，不含电磁阀工作噪音）

Performance parameter

Dimensions.....

AKS150 Length x Width x Height = 2870x1850x1310

AKS280 length x width x height = 2720x1100x1350

Can be connected to output..... 1 station

Heating zone.....1 or 2 (determined by station)

Number of pumps.....1 piece

Pump ratio.....2000r head 8M

Electrical connection..... Standard electrical connection

Weight (empty weight).....AKS150=about 255Kg

AKS280=about 305Kg

Bag shape..... barrel type

性能参数

尺寸……AKS150 长 x 宽 x 高= 2870x1850x1310
AKS280 长 x 宽 x 高= 2720x1100x1350
可接输出…… 1 个工位
加热区……1 或 2 个（根据工位确定）
水泵数量…… 1 个
水泵比率……2000r 扬程 8M
电气连接……标准电器连接
重量（空重）……AKS150=约 255Kg
AKS280=约 305Kg
袋形状……桶式

Power supply requirements

Supply voltage..... 220VAC 50Hz/60Hz

System maximum power.....AKS150=about 2KW

AKS280=about 3.5KW

Pump power..... 20W (including heat-increasing fins)

供电要求

供电电压…… 220VAC 50Hz/60Hz
系统最大功率……AKS150=约 2KW
AKS280=约 3.5KW
水泵功率…… 20W（含增热鳍）

Gas supply:

Air pressure.....>=0.5Mp dry compressed air

Maximum gas consumption..... 30 liters / minute

供气:

气压…… >=0.5Mp 干燥压缩空气
最大用气量…… 30 升/ 分

Device parameters:

Bagging size..... AKS150=Wide (160-250) x Height (35-150mm)

AKS280=Wide (160-250) x Height (100-220mm)

Packing rate..... >= 16 packs/min (increased or decreased depending on the thickness of the bag)

设备参数:

装袋尺寸…… AKS150=宽(160-250)x 高（35-150mm）
AKS280=宽(160-250)x 高（100-220mm）

装包速率…… >= 16 包/分（根据袋子厚度不同有所增减）

Control method

Temperature control system....System internal frequency modulation control method

Control system.....PLC

Display type.....Touch screen

Packaging machine inverter control signal..... manual adjustment

Glue gun solenoid valve control signal.....24VDC

Electrical insurance..... leakage protector automatically turns off the main power

Bagging method..... manual button operation

Drive motor..... 200W three-phase AC geared motor

Motor control mode..... inverter

控制方式

温控系统…… 系统内部频率调制控制方式
控制系统……PLC
显示类型……触摸屏
包装机变频器控制信号……手动调节

胶枪电磁阀控制信号……24VDC
电器保险……漏电保护器自动关闭主电源
装袋方式……手动控钮操作
驱动马达…… 200W 三相交流减速电机
马达控制方式……变频器

Chapter III Packaging Machine Installation

第三章　包装机安装

3.1 Installation and initial use

1) Packing machine handling:

The packaging machine can be carried by two people. Open the caster wheel and push one end. Do not use ropes or hook tools. Do not stand on the machine.

2) The packaging machine is fixed:

The packaging machine is installed on a flat floor. After the packaging machine is transported to the proper position, press the foot universal wheel to lock the pedal. The main power supply circuit and other control communication lines can pass through the bottom.

3) Packaging machine installation:

After the packaging machine is fixed, please follow the steps below to install:

1. Make sure that the power supply switch and the main power switch of the packaging machine are both off.

2. Open the side panel of the electrical box, connect the correct power supply cable to the power input terminal of the packaging machine, and connect the grounding wire.

3. During installation, the customer needs to connect the power cord to the lower part of the power input terminal and ensure that the phase sequence of the fire zero line is correct (see wiring diagram 1).

4. Install dry compressed air to the air source processor input port on the rear of the packaging machine and open the valve on the air source processor.

4) Initial start

1. Add a proper amount of clean water to the bucket of the pump (1/2~2/3 is appropriate)

2. Turn on the main power switch on the power distribution board of the packaging machine, the inverter power supply (if any), CPU power, and pump power.

(Do not turn on the transformer power supply).

3. Turn on the key switch on the control box to turn on the power and the display will start to display.

4. Check whether the station switch is turned on in the system parameter item of the touch screen (see Chapter 5 for details).

5. Press the start button on the control box, the start button indicator will be high, and each station cylinder will return to the initial state.

6. Pressing the manual operation button on the workbench, the packaging machine automatically completes a series of actions and the cylinder returns to the initial state.

7. The stroke of each cylinder is adjusted to suit the width and thickness of the product, and the cylinder stroke of the head portion is adjusted to fit the opening of the bag.

8. Press the manual operation button on the workbench again, and the packaging machine will automatically return to the initial state after a series of actions.

9. Turn on the transformer power switch, put in the product, put on the bag, and try again.

10. If the above operations are correct, they can be put into production formally.

8) Shutdown

1. Turn off the key switch that controls the closing.

2. Then turn off the main power switch on the power distribution board.

2. Finally, the intake valve of the air source processor is turned off.

9) Temporary equipment storage and storage methods

1. Release the pressure of the compressed air and turn off all power.

2. Blow the dust from the equipment with dry compressed air, pour off the water

inside the bucket and wipe it clean.

3. Clean the parts.

4. Remove all gas lines and power lines.

5. Pack the device.

6. Store to a safe place.

10) Processing equipment method

1. Turn off and remove all air pressure and power supply units.

2. Release the remaining air pressure.

5. Remove all accessories and classify them into mechanical and electronic parts.

6. Arrange all parts for recycling.

3.1 安装与初次使用

1）包装机搬运：

包装机可有二人搬运，打开底脚万向轮，各推一头，请勿用绳索或钩类工具，请勿在机器上站立。

2）包装机固定：

包装机安装于平整的地面，包装机搬运到合适的位置后，按下底脚万向轮自锁踏板即可。主供电电路和其它控制通讯线路可以由底部通过。

3）包装机安装：

包装机固定好以后，请按以下步骤安装：

1、确定供电电源开关和包装机主电源开关都处于关闭状况。

2、打开电气箱侧门板，将正确的供电电源线接至包装机电源输入端子，并连好接地线。

3、在安装时，客户需将电源线接驳在电源输入端子的下部，并确保火零线相序正确（见接线图 1）。

4、装干燥干净的压缩空气接驳到包装机后部的气源处理器输入端口，并打开气源处理器上的阀门。

4）初次启动

1. 水泵的水桶里加入适量净洁的水（1/2~2/3 为宜）

2．依次打开包装机配电板上的主电源开关，变频器电源（如有），CPU 电源，水泵电源。（变压器电源不要打开）。

3．打开控制盒上的钥匙开关以打开电源，显示屏开始显示。

4．在触摸屏的系统参数项查看工位开关是否已经打开（**详见第五章**）。

5．按压控制盒上的启动按钮，此时启动按钮指示灯将被点高，各工位气缸回复到初始状态。

6．按压工作台上的手动操作按钮，包装机会自动完成一系列动作后气缸回复到初始状态。

7．调节各气缸的行程以适合产品的宽度、厚度，调节机头部位的气缸行程以适合袋子的开口。
8．再次按压工作台上的手动操作按钮，包装机会自动完成一系列动作后气缸回复到初始状态。
9．打开变压器电源开关，放入产品，套上袋子，再试运行一次。
10．以上操作如无误后即可正式投入生产。

8）关机

1．先关闭控制合上的钥匙开关。
2．再关闭配电板上主电源开关。
2．最后关闭气源处理器的进气阀。

9）临时性的设备储存保管方法

1．释放压缩空气的压力，关断所有电源。
2．用干燥的压缩空气吹干净设备上的粉尘，倒掉水桶里面的水并擦拭干净。
3．清理部件。
4．除去所有气路线及供电电线。
5．将设备包装。
6．储藏至安全地点。

10）处理设备方法

1．关掉并拆除所有气压及电源装置。
2．释放剩余的气压。
5．拆除所有配件及将分类成机械零件和电子零件。
6．安排所有零件使再循环利用。

Chapter IV Explanation of Terminology of Packaging Machine Control System

第四章　包装机控制系统术语解释

4.1 General control functions

Different delay time microphones can be set in each area of the packaging machine, and some parameters are factory-set. Some parameters can be adjusted.

4.2 Explanation of terms

Material Detection Delay: The time the product on the short conveyor waits after it reaches the material detection sensor.

Pressing delay: The waiting time after the material reaches the lower part of the pressing cylinder and the pressing cylinder is pressed down. Used to evacuate the internal air of the product.

One sealing time: The total width of the first time the sealing electric wire is operated after the sealing cylinder is pressed.

Primary sealing frequency: The number of times the power is applied within the total width of the sealing wire for the first time.

Sealing interval: The pause time between the two actions of the sealing wire.

Secondary sealing time: The total width of the second time of sealing the heating wire after the sealing cylinder is pressed.

Secondary sealing frequency: The number of energizations in the total width of the time when the sealing wire is operated for the second time.

Cutting time: Cut off the heating time of the heating wire.

Blowing time: The time when the waste solenoid valve is blown off.

4.4 General setting parameters

Example: General packaging production line application

Material detection delay: 1

Pressing delay: 1

One sealing time: 6

One sealing frequency: 8

Sealing interval: 1

Secondary sealing time: 6

Secondary sealing frequency: 5

Cut off time: 7

Blowing time: 2

4.1 一般控制功能

包装机各区域可设置不同的延时时间咪，有些参数是出厂设定的。有些参数可以调整。

4.2 术语解释

材料检测延时： 短输送机上的产品到达材料检测传感器后等待的时间。
压合延时： 材料到达压合气缸下部后，压合气缸下压完成后等待的时间。用于排空产品内部空气。
一次封口时间： 封口气缸压合后，封口电热丝第一次动作的时间总宽度。
一次封口频率： 封口电热丝第一次动作的时间总宽度内通电的次数。
封口间隔时间： 封口电热丝两次动作之间的停顿时间。
二次封口时间： 封口气缸压合后，封口电热丝第二次动作的时间总宽度。
二次封口频率： 封口电热丝第二次动作的时间总宽度内通电的次数。
切断时间： 切断电热丝的发热时间。
吹废时间： 吹除废料电磁阀的通电时间。

4.4 一般设置参数

例：一般包装生产线应用
材料检测延时：1
压合延时： 1
一次封口时间： **6**
一次封口频率： 8
封口间隔时间： 1
二次封口时间： 6
二次封口频率： 5
切断时间：7
吹废时间：2

Chapter 5 AKS150/AKS280 Series Packaging Machine System Settings

AKS150/AKS280 系列包装机系统设置

5.1 AKS series packaging machine system introduction

The AKS series packaging machine adopts man-machine dialogue mode to make the control system more concise and intuitive. The whole machine adopts a 5-inch touch screen and PLC module to control the movement of each area to make the control more precise.

5.1 AKS 系列包装机系统简介

AKS 系列包装机采用人机对话方式，使控制系统更简洁直观。整机采用一块 5 寸触摸屏配合 PLC 模块控制各区域动作，使控制更精确。

Emergency Stop

System Start button

System power button

Turn to left = off Turn to right =on

紧急停机 按钮

系统启动 按钮

系统电源 开关

Explanation of each button:

Emergency stop button: Pressing this button in any state will release the pressure of all cylinders and stop all cylinders.

System start button: When this button is pressed, the button indicator will be illuminated, after which all cylinders start to load pressure and wait for action signal.

System power switch: Turn on some key switches, the system is powered, you can start working.

术语解释：

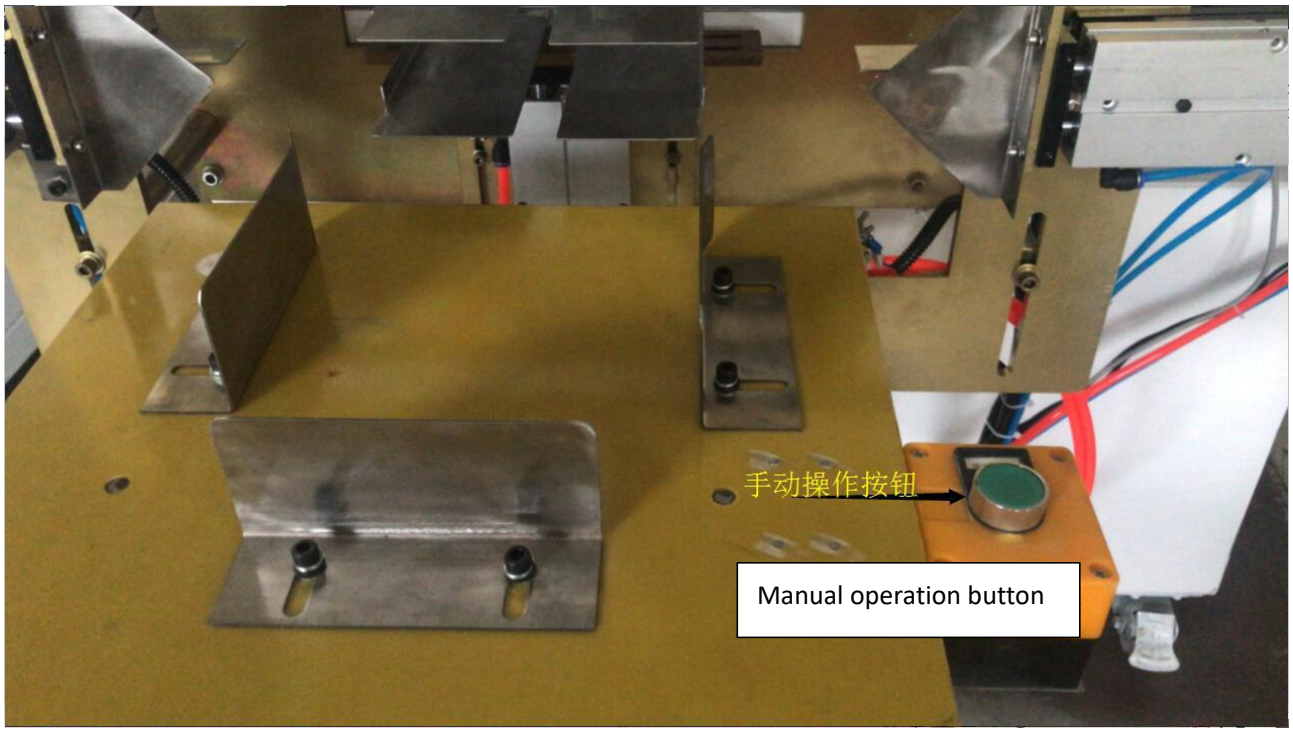
紧急停机按钮： 在任意状态下按下此按钮，将释放所有气缸的压力，停止所有气缸的动作。

系统启动按钮： 按下此按钮后按钮指示灯将被点亮，此后所有气缸开始加载压力，等待动作信号。

系统电源开关： 打开些钥匙开关，系统得电，可以开始工作。

Workbench button introduction

工作台按钮简介



The manual operation button is located on the right side of the workbench. When the operator puts the product into the equipment working position, the operator presses this button, and the equipment will automatically complete a series of actions such as bagging, sealing, cutting off the waste edge, and blowing off the waste. Wait for the operator to re-enter the product and cycle.

手动操作按钮位于工作台右侧，操作人员装产品投入设备工作位时，操作人员按下此按钮，设备将会自动完成产品装袋、封口、切除废边、吹除废料等一系列动作。等待操作人员再次投入产品，循环操作。

After the AKS series packaging machine is powered on, the screen displays the

initial screen, which is used to select the language type of the system.

AKS 系列包装机上电后，屏幕显示初始画面，该画面用于选择系统的语言种类

In the home page of the Chinese or English screen, any area other than the button will be returned to this screen to reselect the language.

在中文或英文画面的主页时，轻点按钮以外的任意思区域将返回到此画面，以便重新选择语言。

5.1.1 轻点 

按钮，选择英文画面。 Press “ENGLISH” Button, choose English interface

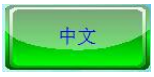
详见 **5.2 系统参数设定 See 5.2 for detail System Parameter Settings**

5.1.2 轻点 

按钮，选择中文画面。 CLICK 中文 button, choose Chinese interface

详见 **5.2 系统参数设定 See 5.2 for detail System Parameter Settings**

5.2 系统参数设置 Detail system parameter settings

点击 

或 

按钮后显示该画面，

Click 中文 or ENGLISH BUTTON TO DISPLAY THE FOLLOWING INTERFACE

This screen can set/view key parameters of the station and key parameters of the device.
该画面可以设定/查看工位的关键参数、设备的关键参数。

Explanation of terms:
Station parameters: The station parameters mainly set the time for each cylinder to move, forcibly open or close the action of a certain cylinder.

The reset of each parameter automatically runs a cycle without material.

Device parameters: Open or close the main switch of the station, query the quantity, query whether the sensor is in place, etc.

术语解释：

工位参数：工位参数主要设置各气缸动作的时间，强制打开或关闭某一个气缸的动作
各参数的复位，无料时自动运行一个循环周期。

设备参数：打开或关闭工位的主开关，查询数量，查询传感器是否到位等。

5.2.1 点击 

按钮后显示以下画面

Click on the station parameter to display the screen

5.2.2 点击各数字框 

按钮，将弹出数字键盘，可以修改各项参数，键入合适的数字后，轻点 

按钮自动保存数据并关闭数字键盘。

5.2.2 Click each of the number box 2 button, the numeric keypad will pop up, you can modify the parameters, type the appropriate number,

Click the Enter button to automatically save the data and close the numeric keypad.

5.2.2.1 CLICK  BUTTON， Scroll up one page

5.2.2.2 CLICK  BUTTON， Scroll down one page

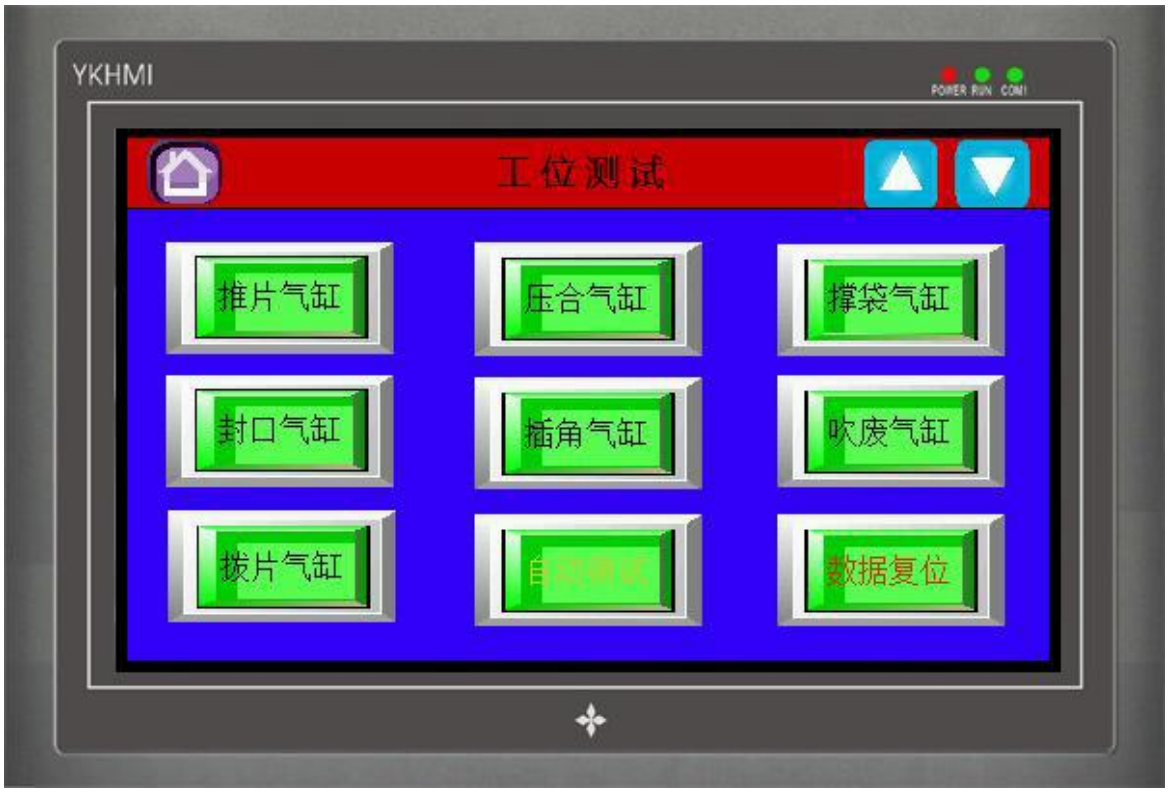
5.2.2.3 CLICK  BUTTON， The screen returns to the standby main screen.

5.2.2.1 点击  按钮，画面上翻一页。

5.2.2.2 点击  按钮，画面下翻一页。

5.2.2.3 点击  按钮，画面返回待机主画面。

5.2.3 工位测试 Station test



该画面可以强制气缸的启动与停止。

This screen can force the cylinder to start and stop.

Explanation of terms:

Push cylinder: Push the placed product into the bag.

Pressing cylinder: After the product reaches the position below the pressing cylinder, the pressing cylinder is pressed down to remove the air inside the product.

The bagging cylinder: After the user manually puts the bag on the bag piece, the bag cylinder works to open the bag mouth and lock the bag mouth.

Sealing cylinder: Seal the mouth of the bag and cut off the excess.

Angled cylinder: The pocket is folded and formed.

the Blowing waste cylinder: blow off the residual waste of the bag remaining in the sealing part.

Pick-up cylinder: Pull the product from the conveyor belt into the press-fit position.

Automatic test: After clicking the automatic test button, each cylinder will automatically run a cycle according to the preset program of the system.

Data reset: After clicking the data reset button, the parameters entered by the user will be cleared and restored to the factory default data. User can root

Make changes as needed.

术语解释：

推片气缸：把放入的产品推入袋子。

压合气缸：产品到达压合气缸下方位置后，压合气缸下压以排除产品内部的空气。

撑袋气缸：由用户手工把袋子套在撑袋片后，撑袋气缸工作以把袋口打开并锁住袋口。

封口气缸：封住袋子口部并切除多余部分。

插角气缸：袋口折叠成形。
吹废气缸：吹除封口部位滞留的袋口残余废料。
拨片气缸：把产品从输送带上拨入压合排气位置。
自动测试：点击自动测试按钮后各气缸会按系统预设的程序自动运行一个循环周期。
数据复位：点击数据复位按钮后会把用户输入的参数清除并恢复成出厂预设数据。用户可以根据需要再作修改。

Special Note: When a cylinder is forcibly opened, the subsequent program may continue to run due to the self-locking of the program.

特别注意：强制打开某一个气缸时，可能会因为程序的自锁而触发后面的程序继续运行。

5.3 设备参数设定 Device parameter setting

This screen can be set to set key parameters. Incorrect settings may make the station not work. Please be cautious.

该画面面可设定设置关键参数，不正确的设定可能使工位不工作。
请谨慎操作。

Click the device parameter button to display the following screen

点击 

按钮后显示以下画面

5.3.1 工作方式 Way of working

Explanation of terms:

Station switch: This switch is the main switch of the station. Turn on the button to start the station. Only when the switch is on, set

The equipment can be operated, otherwise the station operation will not have any movement. When the station switch is turned on, the left indicator will be clicked.

bright. As shown below:

术语解释：

工位开关：该开关是工位的主开关，打开该按钮以启动工位，只有在该开关处于开启状态时，设备才可以操作，否则工位操作不会有任何动动。工位开关开启后左侧的指示灯会被点亮。**如下图所示：**

Operation button selection: Select whether the operation button is a manual push button or a foot switch. The unit is equipped with a manual push button.

As shown below:

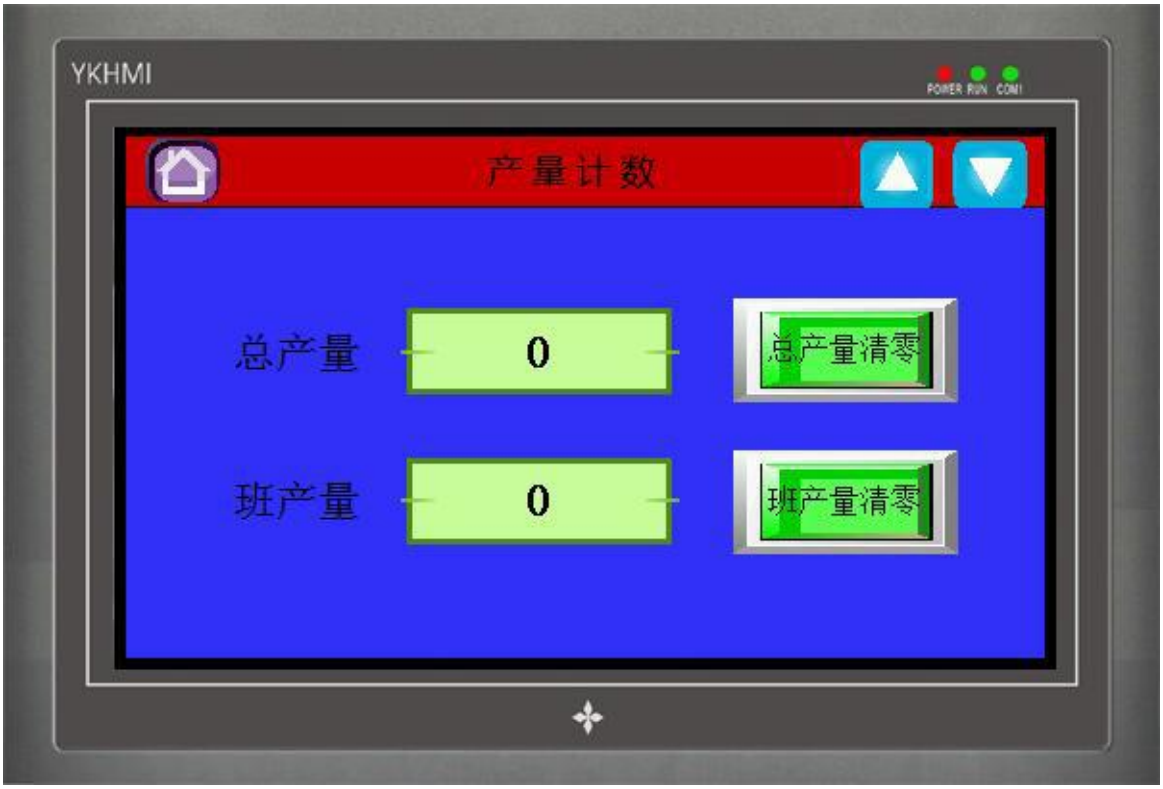
操作按钮选择：选择操作按钮是手动按压式按钮还是脚踏开关，本机标配的是手动按压式按钮。

如下图所示：

Special Note: Please ensure the selection shown in the above two legends under any circumstances, otherwise it may cause the device to be inoperable.

特别注意：请在任何情况下都确保以上两个图例所示的选择，否则可能引起设备无法运行的情况发生。

5.3.2 产量计数 Production count



Explanation of terms:

Total production: from the official start of operation to the total output before the total production is cleared.

术语解释：

总产量：从正式开始运行时起，至总产量清零前止的所有产量。

Click the **Total Yield Clear** button to clear the total output to recount.

点击 

按钮可以把总产量清零，以重新计数。

班产量：当天的产量，需要每天下班时清零。

One Shift production: The output of the day needs to be cleared every day after work.

Click the **shift output clear** button to clear the total output to recount.

点击 

按钮可以把班产量清零，以重新计数。

5.3.3 输入端口 input port

包装机由多个气缸组合完成装袋操作，多个气缸装有传感器以检测气缸的行程是否到位。如果气缸动作到位则会被相应的传感器检测到，传感器检测到气缸动作到位后传感器的指示灯会被点亮。如果气缸动作到半途中停止时，检查动作过程中的最后一个气缸是否动作正常到位的主要判断依据就是传咸器的指示灯是否被点亮。

The packaging machine completes the bagging operation by a plurality of cylinder combinations, and the plurality of cylinders are equipped with sensors to detect whether the stroke of the cylinder is in place. If the cylinder is in place, it will be detected by the corresponding sensor. When the sensor detects that the cylinder is in place, the indicator light of the sensor will be illuminated. If the cylinder is stopped halfway, the main judgment of whether the last cylinder in the inspection operation is normally in place is whether the indicator of the salt collector is illuminated.

5.3.4 输出端口 Output Port

The packaging machine controls each solenoid valve by PLC, and then each cylinder is driven by a solenoid valve. This screen is used to judge whether or not each solenoid valve operates in the order set by the program.

包装机由 PLC 控制各个电磁阀，再由电磁阀驱动各个气缸。该画面用于判断各电磁阀是否按程序设定的顺序动作。

第六章　包装机维护保养

Chapter VI Maintenance of Packaging Machine

6.1 General cleaning

The packaging machine uses high-strength top coat paint, which can be used in a variety of common cleaning methods, but to prevent the coating from falling off or damage, do not use strong corrosive solvents.

6.2 Maintenance

The packaging machine requires only a small amount of maintenance, and an external compressed air processor is designed to prevent large particles from entering the system. The water in the filter cup needs to be removed

according to the air humidity, and other parts requiring maintenance are operated as follows.

6.2.1 Replacement of high temperature cloth and heating wire for sealing plate

High-temperature cloth is usually replaced once a month. After gaining experience, you can set the time for cleaning and replacement.

The heating wire is usually replaced when it is damaged.

The high temperature cloth and the heating wire are in the sealing platen, see the attached drawing.

6.1 一般清洗

包装机采用高强度外涂层漆，可用各种常用的清洁方法，但为防止涂层脱落或损伤，请勿用强腐蚀性溶剂。

6.2 保养

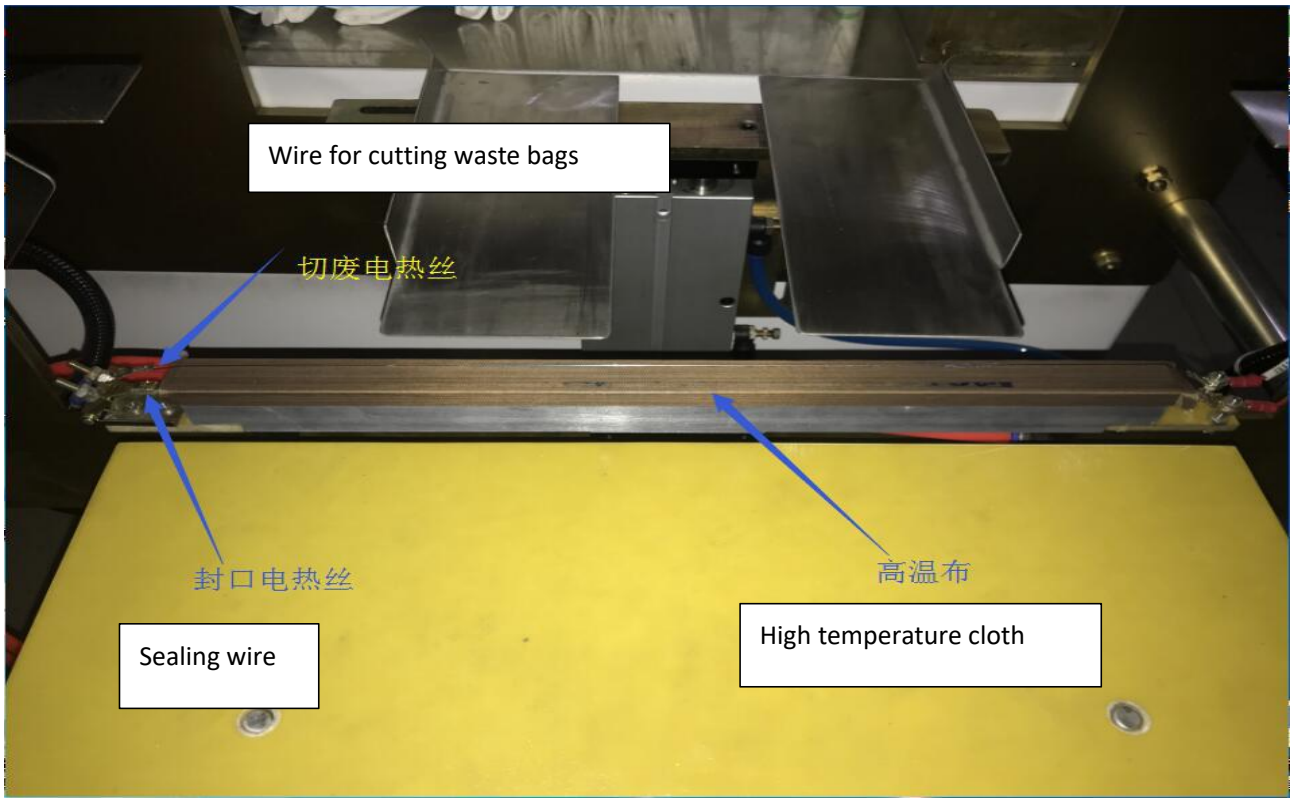
包装机只需少量维护，外置压缩空气处理器，目的为防止大颗粒的杂物进入系统，跟据空气湿度需要排除滤水杯中的水份，而其它需要保养的部件按以下程序操作。

6.2.1 封口压板高温布及发热丝的更换

高温布通常每个月更换一次，在获得经验之后，可以自行制定清洗、更换的时间。

发热丝通常在损坏时更换。

高温布及发热丝在封口压板内，见附图。



按以下步骤更换电热丝、高温布：

1、请先将系统电源关闭；

2、释放设备里残余的压缩空气；

3、去除切废电热丝；

4、去除高温布；
5、去除封口电热丝；
6、更换封口电热丝，贴上高温布；更换切废电热丝。
7、重新打开设备电源，打开压缩空气进气阀。

6.2.2 气缸检测传感器

所有传感器随时检查是否锁紧，每班次查看是否在合适的位置，是否正常点亮指示灯。

6.2.3 Mounting screws

After the first 10 hours of operation, inspect all fastening bolts, plugs and sealing screws and check every three months thereafter.

6.2.3 安装螺丝

经过最初 10 个小时操作后，检查所有紧固螺栓、插头和密封螺丝，以后每三个月检查一次。

6.2.4 Cleaning of submersible pumps

1. The power of the device is turned off;
2. Open the bucket lid and take out the submersible pump;
3, pour off the water in the bucket, clean the bucket, and re-add the appropriate amount of clean water;
4. Put the water pump into the bottom of the bucket and press it slightly, so that the pump is smoothly absorbed at the bottom of the bucket;
5. Cover the bucket cover.

6.2.4 潜水泵的清洗

1、设备电源关闭；
2、打开水桶盖，取出潜水泵；
3、倒掉水桶里的水份，清理干净水桶，重新加入适量净洁的水；
4、把水泵放入水桶底部并稍用力按压，让水泵平稳的吸附在水桶底部；
5、盖上水桶盖。

6.3 General maintenance rules

A. Monthly maintenance

1. Check the output filter and replace if necessary.
2. Check the wiring on the electrical distribution board and replace the aging wires as needed.

B. Quarterly maintenance

1. Check if the joint is tight.
2. Check if the bolts are tight.
3. Check the compressed air source processor for cleaning or replacement.

6.3 一般维修规则

A. 月度维修保养

1、检查输出过滤网，如必要的话请更换。
2、检查电器配电板上线路情况，根据需要请更换老化的电线。

B. 季度维修保养

1、检查连接部位是否紧固。
2、检查螺栓是否紧固。
3、检查压缩空气气源处理器，清洗或更换。

第七章　包装机故障排除

Chapter VII Troubleshooting of Packaging Machine

7.1 Precautions

Troubleshoot the instruments and tools used, such as multimeters, thermometers, soldering irons, etc., maintenance personnel should be familiar with the practice.

7.1.1 Preparation before detailed inspection

1. Whether the packaging machine is in a waiting state.

2. Whether the main power cord of the packaging machine is loose or has no power supply.

3. Is there compressed air available to the packaging machine?

4. Is the gas circuit and circuit components connected correctly?

7.1.2 Quick judgment of faults

In the case where the cylinder operation is not completed for one cycle, the position of the sensor is shifted, so the operator can detect it by himself. Turn on the power of the packaging machine, close the compressed air intake valve, remove the product on the equipment, and manually extend or retract the cylinders by hand to observe whether the cylinder detection sensor is normally lit. If it is normal, the solenoid valve of the corresponding cylinder may have a problem; if it is not normal, the corresponding sensor position may be offset.

7.1.3 Motor speed control reset.

Adjust the frequency converter frequency knob of the corresponding conveyor drive motor.

7.1 注意事项

排除故障使用的仪器和工具，如万用表、测温表，电烙铁等,维修人员应能熟悉练用。

7.1.1 详细检查前的准备工作

1、包装机是否处于待状态。

2、包装机主电源线有否松脱或有无电源。

3、是否有压缩空气提供给包装机。

4、气路及电路部件有否正确连接。

7.1.2 故障的快速判断

一般气缸动作没有完成一个周期的情况是传感器位置发生偏移，因此操作人员可先自行检测。把包装机电源打开，关闭压缩空气进气阀，将设备上的产品去除，用手拨动各个气缸完全伸出或退回，观察气缸检测传感器是否正常被点亮。若正常，那么相应气缸的电磁阀可能有问题；若不正常，可能是相应的传感器位置发生偏移。

7.1.3 马达速度控制重新设定。

调节相应输送带驱动电机的变频器频率旋钮。

8.3 故障排除列表 Troubleshooting list

故障现像 Fault phenomenon	故障原因 Fault reasons	排除方法 Solve methods
所有气缸不动作	1. 没有输入压缩空气 2. 工位开关没有启用	1. 打开气源处理器进气阀 2. 打开设备参数选项中的工位开关

All cylinders do not work	3. 电源没有打开 1. No compressed air input 2. Station switch is not enabled 3. The power is not turned on	3. 打开设备主电源 1. Open the air source processor intake valve 2. Open the station switch in the device parameter options 3. Turn on the main power of the device
某一个气缸不动作 One of the cylinders doesnot work	1. 气缸检测传感器脱离位置 2. 对应的电磁阀不工作 3. 上一个动作的气缸没有正常复位 1. Cylinder detection sensor disengagement position 2. The corresponding solenoid valve does not work 3. The cylinder of the previous action is not reset properly	1. 检查气缸传感器是否在位置上且被传感器指示灯被点亮 2. 更换气缸对应的电磁阀 3. 检查上一个动作的气缸传感器是否在位置上且被传感器指示灯被点亮。 1. Check if the cylinder sensor is in position and the sensor indicator is lit 2. Replace the solenoid valve corresponding to the cylinder 3. Check that the cylinder sensor of the previous action is in position and the sensor indicator is illuminated.
袋口切边不清或不能切断 The edge of the bag is not clear or can not be cut	1. 切废固态继电器损坏 2. 切废时间过短 3. 切废电热丝断开 1. The solid state relay of cutting waste is damaged. 2. The cut-off time is too short 3. the heating wire in Cut off disconnected	1. 更换切废固态继电器 2. 延长切废时间 3. 更换切废电热丝 1. Replace the solid state relay of cutting waste 2. Extend the cut-off time 3. Replace the waste electric heating wire
袋口封不住或封不牢 The bag mouth can't be sealed or the seal is not strong	1. 封口固态继电器损坏 2. 封口时间过短 3. 封口电热丝损坏 1. Solid state relay of sealing part is damaged 2. Sealing time is too short 3. Sealed heating wire is damaged	1. 更换封口固态继电器 2. 延长一次封口时间或增加一次和二次封口频率 3. 更换封口电热丝 1. Replace the solid state relay of sealing part 2. Extend the sealing time or increase the frequency of primary and secondary sealing 3. Replace the sealing wire
封口皱纹过大过多 too much wrinkles in sealing head	1. 插角气缸插片高度不对 2. 插角气缸插片行程过长或行程过短 3. 插角气缸插片过大或过小 4. 工作平台高度不适合 1. The height of the cylinder of V type unit is incorrect. 2. The cylinder of V type unit is too long or the stroke is too short	1. 调整插角气缸高度，使插片与袋子中缝对齐。 2. 调节插角气缸滑板，使行程适中。 3. 更换插角气缸上的插片。 4. 调节工作平台的高度，使平台略低于下撑袋口 1. Adjust the height of the V type unit cylinder so that the V type unit aligns with the center of the bag. 2. Adjust the V type unit cylinder slide to make

	3. The V type unit is too large or too small 4. Work platform height is not suitable	the stroke moderate. 3. Replace the V type unit on the gusseted cylinder. 4. Adjust the height of the work platform so that the platform is slightly lower than the lower support pocket

第八章 包装机换号程序 Chapter VIII Packaging Machine Change size Program

8. 1 Calculation of the length and width of the bag

The width of the bag = the width of the product

Thickness of the package = thickness required for the completed package

Length of the bag = length of the product + thickness of the bag + 4 cm + length of the handle part of the bag

包装袋长宽的计算

包装袋的宽度 = 产品的宽度

包装袋的厚度 = 要求包装完成的厚度

包装袋的长度 = 产品的长度 + 包装袋的厚度 +4 厘米 + 包装袋提手部分的长度

8.2 Procedure for changing the number of the packaged product

First turn off the air intake valve of the air source processor, turn off the main power of the device, and follow the steps below to enter the number change procedure.

8.2.1 Determine the product size of the package (length, width and thickness of the product).

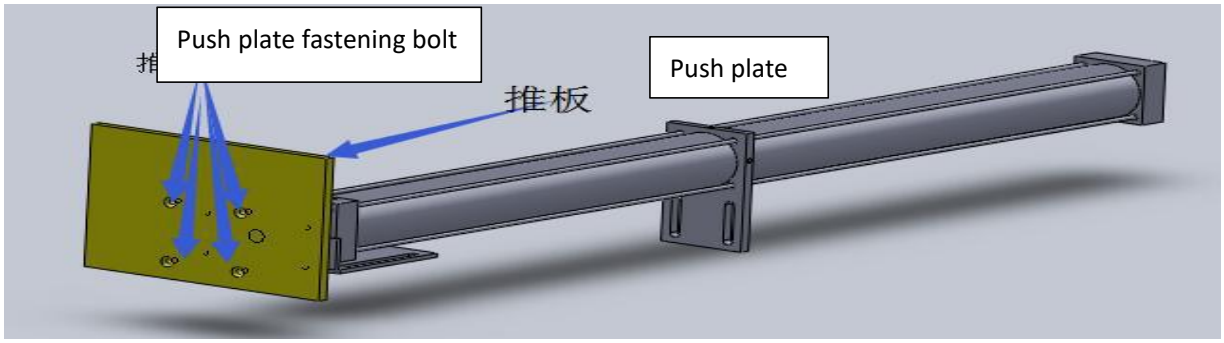
8.2.2 Replace the push plate of the pusher cylinder suitable for the product (the width and height of the push plate are slightly less than 1 cm of the width of the product and the height). As shown below:

包装产品换号的程序步骤

首先关闭气源处理器的进气阀，关闭设备主电源，按以下步骤进入换号程序。

8.2.1 确定包装的产品尺寸（产品的长宽厚）。

8.2.2 更换适合产品的推片气缸的推板（推板的宽度、高度略少于产品宽度、高度 1cm 左右）。如下图：



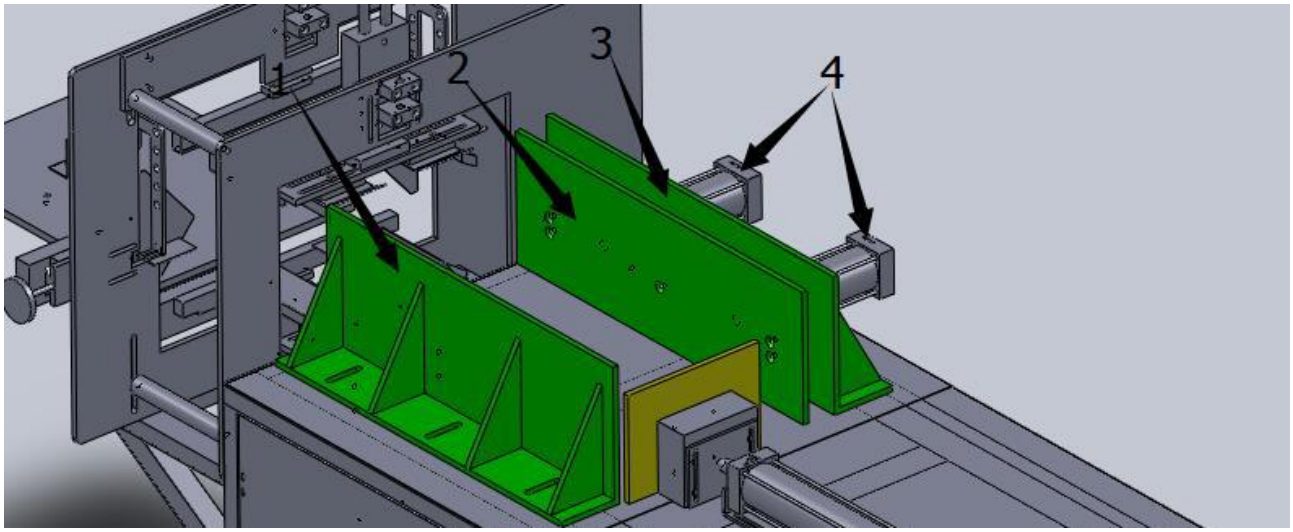
拆下四颗推板紧固锣栓即可取下推板。

8.2.3 Adjust the height and width of the compacted product cylinder. As shown below

调节压合气缸的仓位高度/宽度适合产品的厚度。如下图：

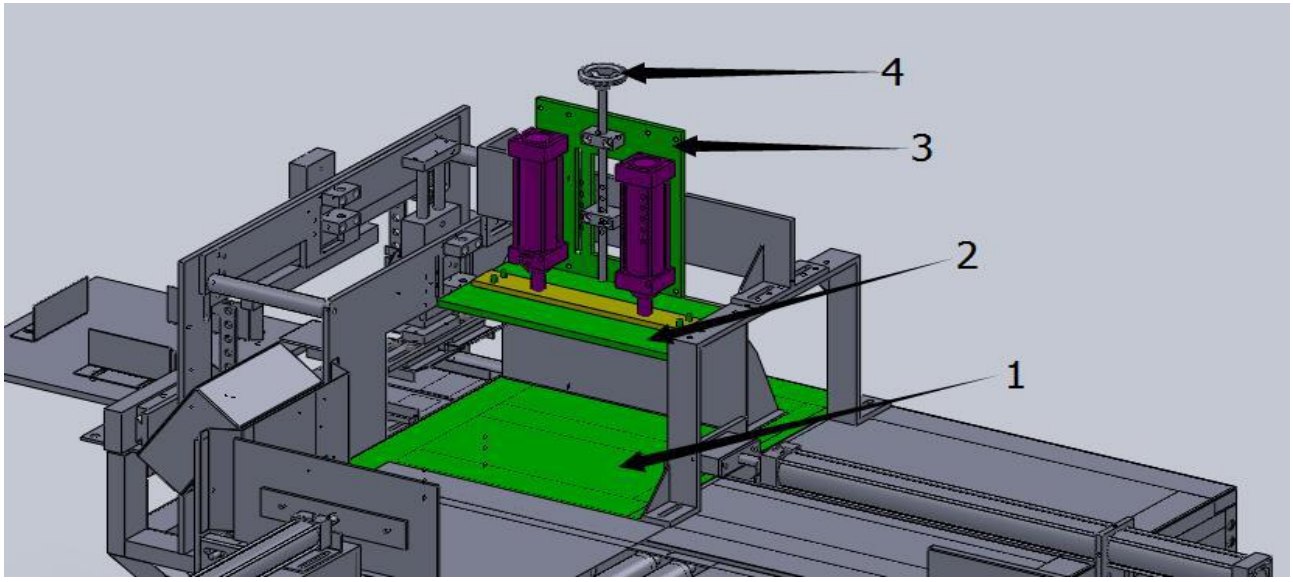
AKS280 系列包装机的压合仓如下图：

The compacted product area of ASK280 serious packing machine



调节压片档板 1，使档板推板的边缘。使压片气缸 4 处于完全伸出状态，调节压片气缸支架 3 使 1 和 2 之间的距离等于包装产品的厚度。紧固 1 和 3 的紧定锣栓。

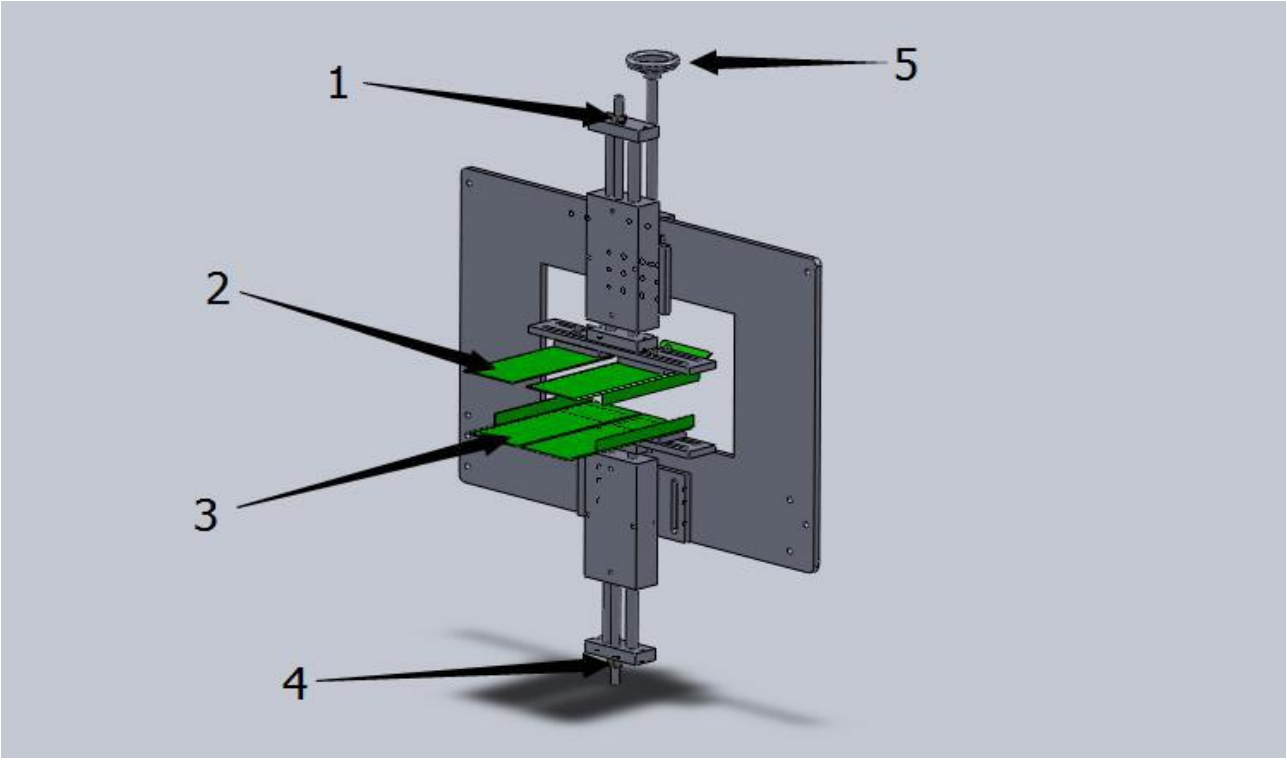
AKS150 系列包装机的压合仓如下图：The compacted product unit of AKS150 series packaging machine is as follows



使压片气缸完全伸出，松开压片气缸支架 3 的紧固锣栓，调节手轮 4 使压板 2 和底板 1 之间的距离等于产品的厚度，拧紧压片气缸支架 3 的紧固锣栓。

The compacted product cylinder is completely extended, loosen the fastening bolt of the compacted product cylinder 3, adjust the hand wheel 4 ,so that the distance between the pressure plate 2 and the bottom plate 1 is equal to the thickness of the product, after that tighten the fastening bolts 3 of the compacted product cylinder

8.2.4 调节撑袋气缸 Adjustment of bagging cylinder



a. Loosen the tighten bolts of upper gusset to and adjust the handwheel 5 so that the maximum opening degree of 2 and 3 (at the maximum opening degree) is equal to the thickness of the packaged product + 5 mm. Tighten the fastening bolts of the upper gusset sheet.

b. Loosen the stroke adjustment bolts 1 and 4 of the upper and lower bagging cylinders , so that the bagging units 2 and 3 are at the minimum opening degree and in the middle of the stroke ,tighten the stroke adjustment bolts 1 and 4 of the upper and lower support pocket cylinders.

松开上撑袋片紧固螺栓，调节手轮 5，使 2 和 3（处于最大开启度）的最开启度等于包装产品的厚度+5mm。拧紧上撑袋片的紧固锣栓。

松开上下撑袋片气缸的行程调节螺栓 1 和 4，使撑袋片 2 和 3 处于最小开启度并且在行程的中间位置，拧紧上下撑袋片气缸的行程调节锣栓 1 和 4。

8.2.5 插角气缸的调节 Adjustment of the angled cylinder of V type unit

After all the above steps are completed, turn on the main power of the device (the transformer power supply remains off), open the air intake valve of the air source processor, put the product to test whether the product can be normally pushed out to the workbench, if not, repeat Steps 8.2. 1~ 8.2.4 , until the product is properly pushed onto the workbench.

At this point, put a suitable bag on the bag support device and check again whether the product can be pushed into the bag normally. If not, repeat step 8.2.4 , until the product can be pushed into the bag smoothly.

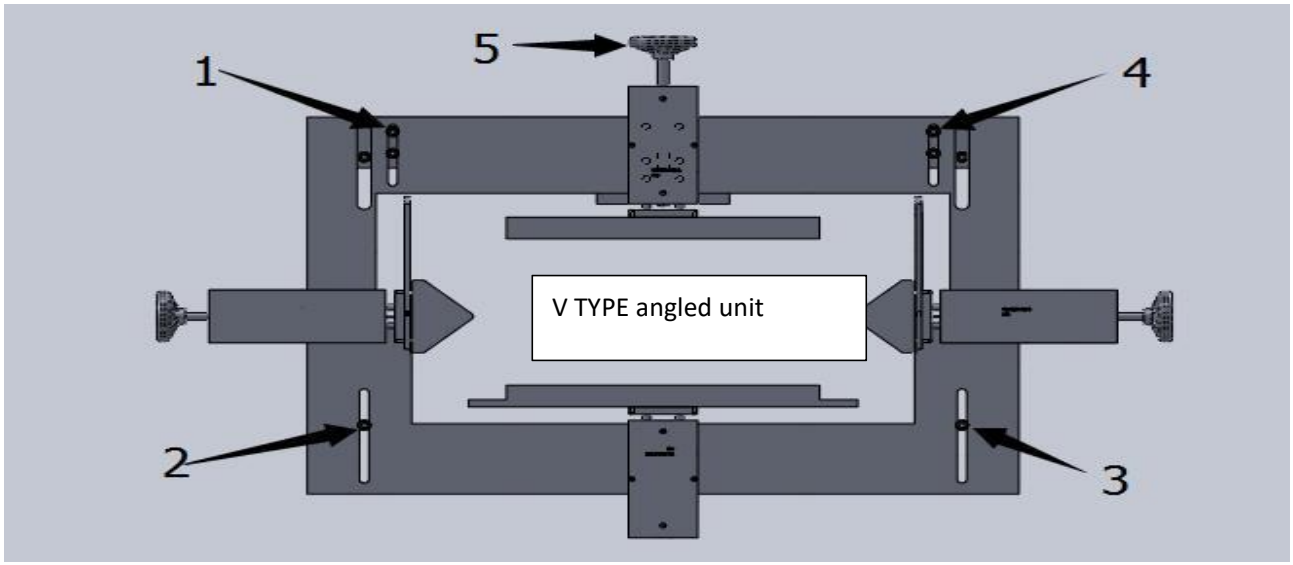
Turn off the main power of the unit and turn off the air intake valve of the air source processor.

以上步骤全做完后，打开设备主电源（变压器电源保持关闭），打开气源处理器的进气阀，放入产品测试一下产品是否能被正常推出到工作台上，如不能，重复 8.2.1~8.2.4 步骤，直至产品能正常被推到工作台上为止。

此时在撑袋片上套上合适的袋子，再次检查产品能否正常被推入袋子中，如不能，重复 8.2.4 步骤，直至产品能顺利推入袋子中。

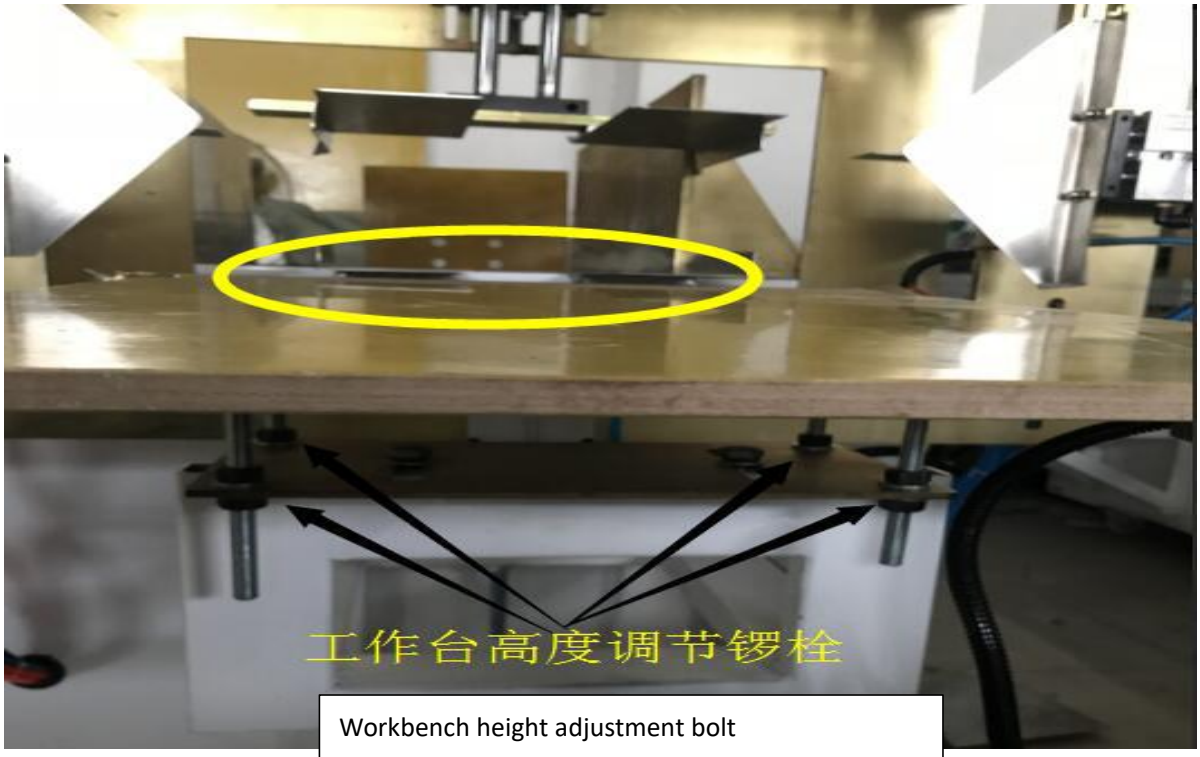
关闭设备主电源，关闭气源处理器的进气阀。

调节插角气缸的高度，如下图 Adjust the height of the angled cylinder of V type unit, as shown below



松开 1、2、3、4 四颗紧固锣栓，调节手轮 5，使插角片与包装袋的中缝对齐。
手动推开插角气缸，使插片与袋子中缝对齐或略高于袋子中缝。如下图：
Loosen the four fastening bolts 1, 2, 3, 4 and adjust the handwheel 5 ， so that the v type unit is aligned with the middle seam of the bag.
Manually push the cylinder of V type unit， so that the V type angled unit aligns with the middle seam of the bag or slightly above the seam in the bag. As shown below:

8.2.6 工作台高度的调节 Workbench height adjustment bolt
调节工作台的高度，使工作台的平面底于下撑袋片 1cm 即可（下撑袋片处于退回状态）。如下图：
Adjust the height of the workbench, so that the flat bottom of the workbench can be 1cm below the lower support bag (The lower support bag is in the returned state)



Workbench height adjustment bolt

至此装袋规格调换完成，试生产。

At this point, the bagging specifications have been exchanged and trial production