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## **PREFACE**

Thank you for purchasing the automatic folding carton sealer. This manual will show you the basic structure, using method and points for attention to use this machine safely and correctly. Please read this manual carefully before operating the machine.

FX carton sealer series use OPP tape to seal different kinds of cartons. The machine is operated and maintained easily with simple structure and high quality, for which it is widely used in various industries.

### **Safety precautions**

1. The operator and maintenance personnel should read the operating manual carefully before operating and maintaining this machine.
2. The operator must keep away from the back folding plate to avoid injury.
3. The power and gas must be closed when installing the tape and doing the daily maintenance.
4. Only the trained personnel can operate the machine.

## Directory

1. Specifications .....	1
2. Brief introduction of main structure (P.2).....	1
3. Instructions to adjusting parts .....	2
3.1 Table height adjustment (P.3).....	2
3.2 Width adjustment .....	3
3.3 Lateral pressure wheel adjustment (P.7) .....	4
3.4 Back folding plate adjustment (P.8) .....	5
3.5 Swing-rod adjustemnet (P.9) .....	5
3.6 Adhesive tape installation and adjustment (P.10) .....	5
4. Operating instruction .....	8
5. Maintenance .....	9
6. Restrictions on cartons .....	9
7. Exploded figure.....	10
7.1 General exploded figure.....	10
7.2 Exploded figure of adhesive tape adhibiting set .....	12
8. Malfunctions and solutions .....	14
9. Electric control.....	15
9.1 Electric control sketch.....	15
9.2 Electric control operation.....	15
9.3 Inspection and Maintanance of pneumatic control .....	17
9.4 Inspection and repair of electric control .....	17
9.5 Common malfunctions and solutions.....	18

# 1.Specifications

The semi-auto folding carton sealer can be operated singly, with simple operation and high performance, for which it may be ideal packaging machine for you. The main specifications are listed as follows:

Sealing width: 150mm~500mm

Sealing height: 150mm~500mm

Sealing length: 200mm~600mm

Table height: 610mm~810mm

Machine size: L1700 mm \*W950 mm \*H1750 mm

Sealing speed: 20m/min

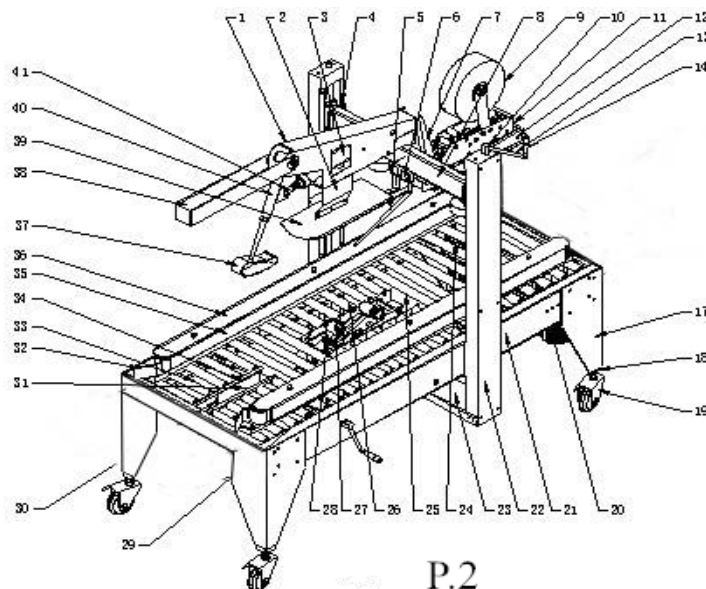
Power: 220v 50/60HZ

Gas resource: 5.5~6kg/cm<sup>2</sup>

Applicable tape:W (60~72) mm×L1000y

Machine weight: 200kg

## 2. Brief introduction of main structure (P.2)



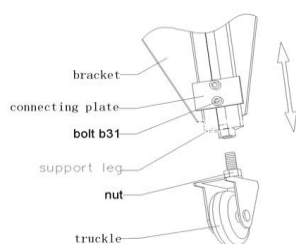
### Spare parts list:

S/N.	Parts Name	S/N.	Parts Name	S/N.	Parts Name
1	Cylinder holder	19	Truckle	37	Rear folded plate
2	Connecting plate	20	Electromotor	38	Protecting plate
3	Cylinder	21	Right side plate of the frame	39	Front folded plate
4	Lifting nut	22	Column	40	Swing arm
5	Swing-rod	23	Chain protecting cap	41	Spherical bearing
6	Fixed blocks of swing-rod	24	Rear silk pole		
7	Retaining plate	25	Long roller		
8	Upper-transom	26	Mid-short roller		
9	Adhesive tape roller	27	Lower tape holder		
10	Crank fixer	28	Adhesive tape adhibiting set		
11	Adhesive tape adhibiting set	29	Front silk pole		
12	Upper tape holder	30	Rear folder controling switch		
13	Crank	31	Right side plate of inner frame		
14	Crank handle	32	Left-guiding plate		
15	Lengthen stand roller	33	Front short roller		
16	Lengthen stand	34	Left side plate of inner frame		
17	Bracket	35	Strap		
18	Support leg	36	Strap left cover board		

## 3. Instructions to adjusting parts

### 3.1 Table height adjustment (P.3)

Loosen the bolt b31, move the support leg up and down to adjust the table height.

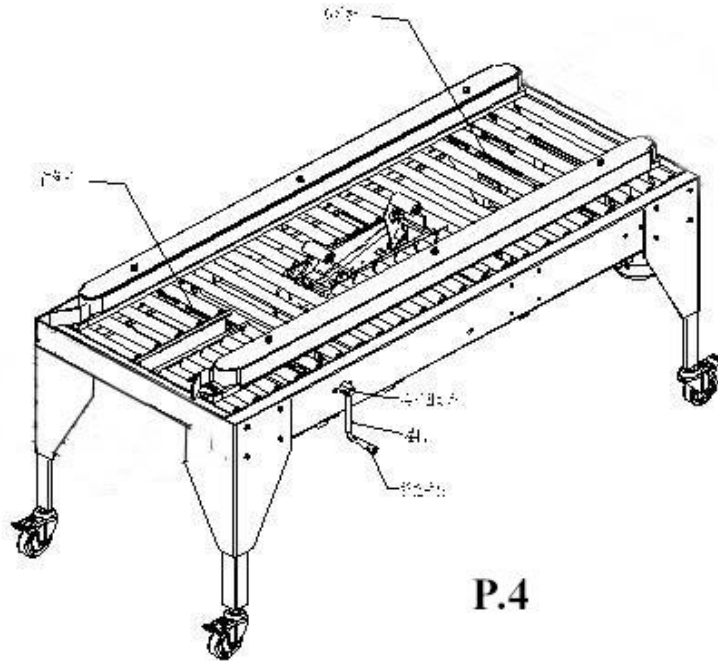


P.3

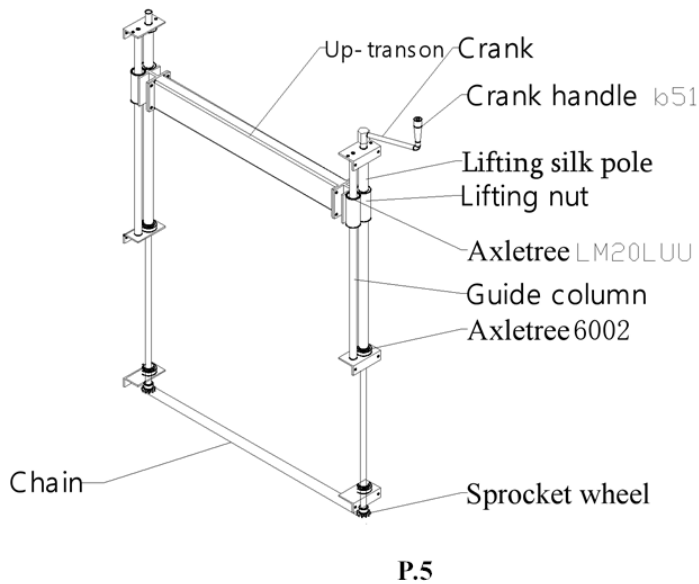
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### 3.2 Width adjustment

Shake the crank to adjust the width. Clockwise turn the crank for narrower, anticlockwise turn the crank for wider. (P.4)

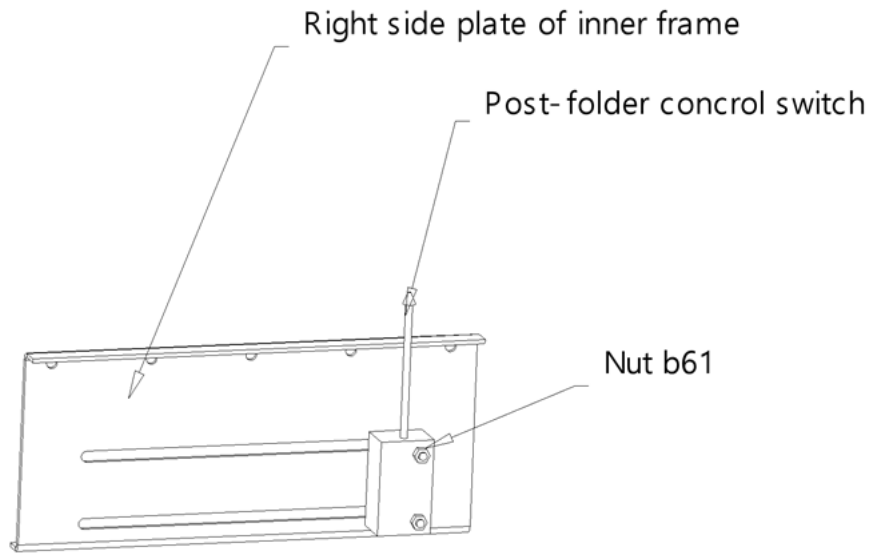


Turning the handle b51 to adjust the height. Clockwise (look out upon) turn the crank for higher, anticlockwise turn the crank for lower. (P.5)



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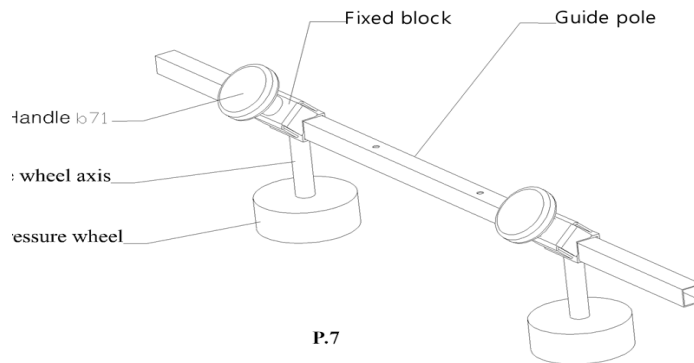
Loosen the nut b61, moving the back folder controlling switch along the long slot of the inner frame right side plate (P.6)



**P.6**

### **3.3 Lateral pressure wheel adjustment (P.7)**

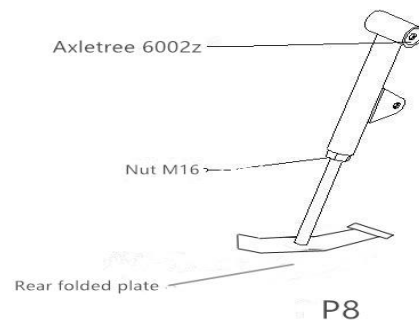
Loosen the handle b71, manually move the lateral pressure wheel horizontal crustal.



**P.7**

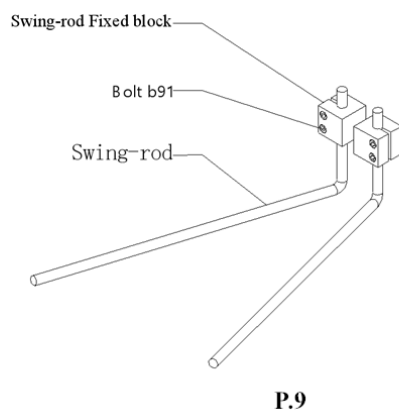
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### 3.4 Back folding plate adjustment (P.8)



### 3.5 Swing-rod adjustemnet (P.9)

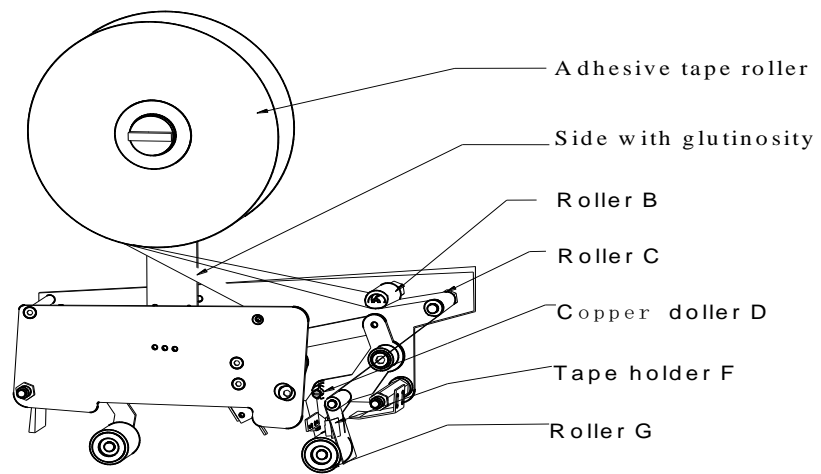
Loosen the nut b91, manually adjust the swing-rod to proper position



### 3.6 Adhesive tape installation and adjustment (P.10)

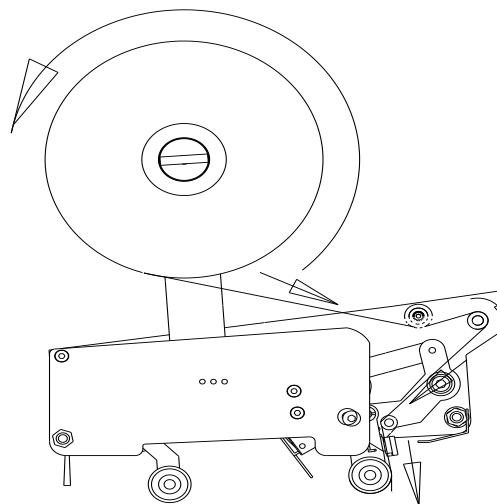
1. At first, install the roll of OPP adhesive tape at the core axis (see P.10), pull out of the adhesive tape, circle around roller B, then circle around roller C, D, get through tape seating F and get out of the front side of roller G. Pay highly attention that the side with glutinosity should face toward outside.





P.10

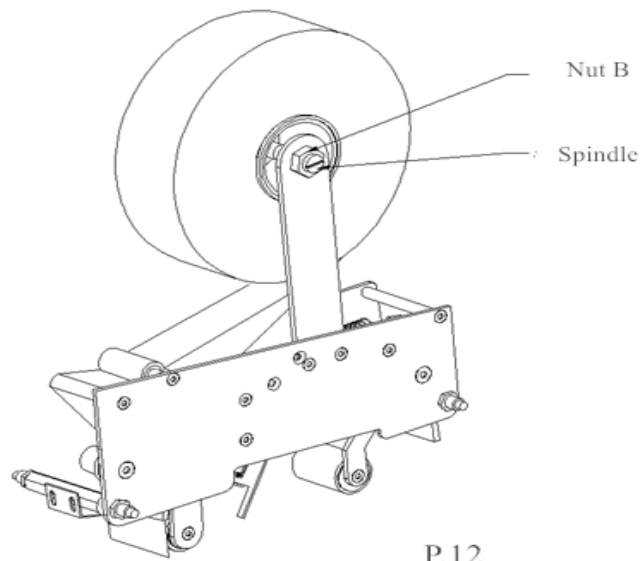
## 2.Drawing of the adhesive tape threading (P.11)



P.11

## 3.Adhesive Tape position adjustment(P.12)

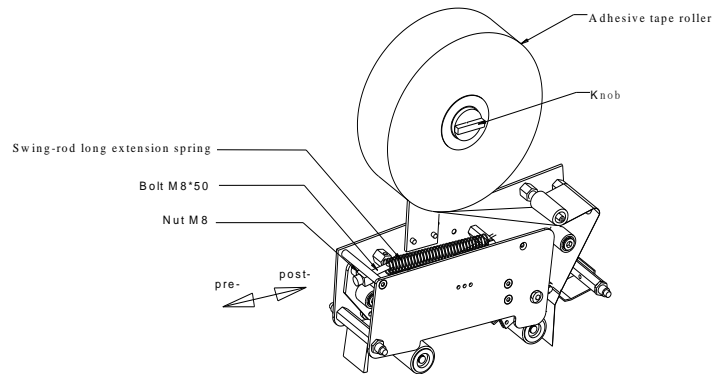
If the adhesive tape is not on the carton central line, please refer to below picture for adjustment. First, loosen the nut, then move the core axis with nut until the adhesive tape is moved to the carton central line.



P.12

#### 4. Adhesive tape tension adjustment

Turn the knob, loosen the nut M8, and adjust the bolt M8\*50 to change the elasticity of swing-rod long extension spring so as to control the tape's tension..Turn the knob clockwise and the tension of adhesive tape will largen; turn the knob anticlockwise, and the tension of adhesive tape will lessen. when the bolt M8\*50 is adjusted frontward, the strain of adhesive tape will largen; conversely, the strain of adhesive tape will lessen. (P.13)



P.13

## 4. Operating instruction

1. Install and enlance the adhesive tape. Adjust the adhesive tape to the middle position
2. Adjust the air pressure.
3. Check if there is water in the oil-water separator or not.Pipe out the water if has. Check if the oil is enough. If not, please refuel it.
4. Adjust the sealing height and width
5. Adjust the side pressing wheel
6. Adjust the swing-rod to proper position
7. Connect the power supply, press the ON switch to run the machine.
8. Push the carton onto the worktable (the covers of the carton must be pricked up), and loosen your hand when the carton is brought along by the conveyer belt. when the carton touches the back folder controlling switch, the piston of the cylinder will hold out to push up the back folder. After the whole carton passes the back folder controlling switch, the back folder will fall down and press the back cover of the carton. At the same time, the side covers of the carton are folded by the swing-rod. Then the folding and sealing is finished.
9. The folding order: front cover, back cover, side covers

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10. Press the OFF switch to stop the machine.

## **5. Maintenance**

1. The power and gas must be cut off when maintenance or adjustment is carried out.
2. Check if the oil of the oil-water separator is enough or not. Refuel promptly. It must use the special oil for air pressure and never use other kinds of replacing oil.
3. Check the water filtration cup of the oil-water separator to make sure there is appropriate water in it.
4. Often brush the axis to prevent dust filtering into the piston, which may cause gas leaking.
5. Maintenance of the air pressure pipe: If the air pressure pipe need to be uninstalled for maintenance, please notice that if the pipe is bent or not before installation. Straighten it if bent for avoiding air obstruction.
6. Fill the engine oil to the silk pole every 3 months.
7. Fill the engine oil to the chain every 3 months
8. Please keep the machine clean and dry.
9. The power supply and gas must be cut off when maintenance or adjustment is advanced.
10. The reamer patch must be cleaned and lubricated before use.
11. It's normal that the strap would be tightened after operating for some time.
12. If any malfunction occur under correct operation within 1 year, we will provide the fittings for free.

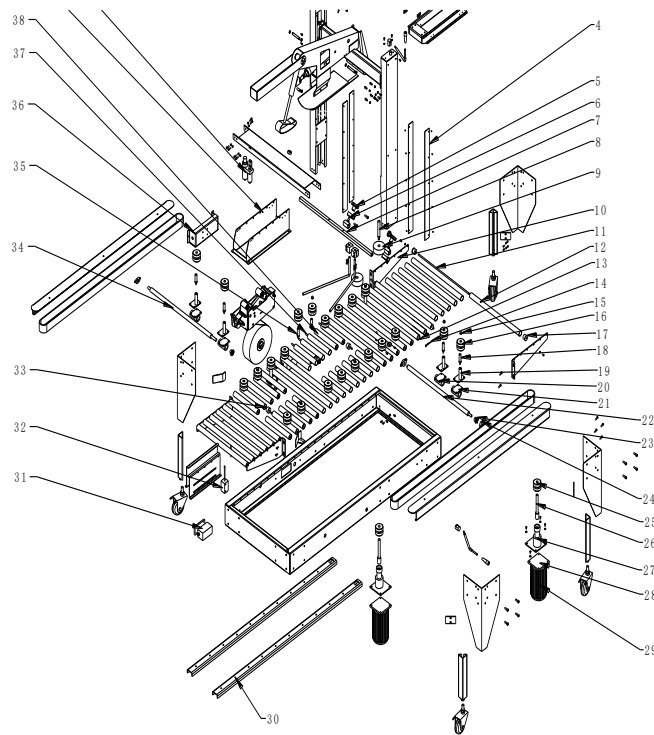
## **6. Restrictions on cartons**

1. Don't use the carton with plastic film on the surface.

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2. The carton must be dry. (Wet carton can't be sealed)
  3. No dust and garbage are allowed on the surface of the carton
  4. Deformed cartons are prohibited for use.
  5. The adhesive tape with different width and thickness can't be used
  6. The adhesive tape which is produced for half a year is not suggested to use.

## 7. Exploded figure

### 7.1 General exploded figure

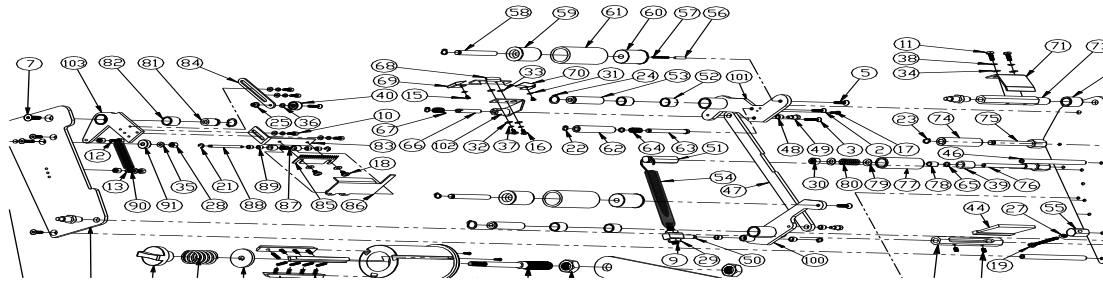


P.14

## Parts list

<b>NO.</b>	<b>Parts Name</b>	<b>NO.</b>	<b>Parts Name</b>
1	Electromagnetic valve	21	Dextrorotation nut
2	Upper-adhesive tape adhibiting set	22	Post-silk pole
3	Upper-adhesive tape adhibiting set fixed block	23	Sprocket wheel
4	Side covered plate	24	Axis sheath
5	Handle	25	Driver
6	Lateral pressure wheel fixed block	26	Motor connecting axis
7	Lateral pressure wheel leader	27	Axis sheath
8	Lateral pressure wheel axis	28	Motor connecting plate
9	Lateral pressure wheel	29	Motor 1/4P 220V 1450RMP I=1:18
10	Lengthen left plate	30	Strap holder
11	Lengthen roller axis	31	Switch
12	Lengthen roller	32	Post-folder controled switch
13	Long roller axis	33	Short pre-roller axis
14	Roller bolt	34	Pre-silk pole
15	Acorn nut	35	Transmission axle
16	Transmission wheel	36	Electrical box
17	Roller plug	37	Mid-short roller axis
18	Transmission axle	38	Mid-short roller
19	Connecting axis groupware	39	Lower-adhesive tape adhibiting set
20	Left lateral nut	40	Oil-water segregator

## 7.2 Exploded figure of adhesive tape adhibiting set



### Parts list:

NO.	Parts Name	NO.	Parts Name
1	Screw M4*12	53	Swing-rod fixed axis
2	ScrewM5*16	54	Swing-rod long extension spring
3	ScrewM5*20	55	Fixed block
4	ScrewM6*12	56	Fixup axis
5	ScrewM6*16	57	Orientation spring
6	ScrewM6*20	58	Rubber wheel axis
7	ScrewM8*16	59	Rubber wheel
8	ScrewM8*16	60	Orientation rubber wheel
9	ScrewM8*50	61	Rubber wheel sheath
10	boltM5*8	62	Pre-pressing floral whorl
11	bolt5*16	63	Pre-pressing floral whorl axis
12	boltM6*12	64	Pre-pressing floral whorl axis spring
13	boltM6*20	65	Pre-pressing floral whorl gasket
14	ScrewM3*8	66	Strap protecting bracket axis
15	ScrewM3*5	67	Strap protecting bracket spring
16	ScrewM4*8	68	Protecting cap fixed plate
17	ScrewM4*10	69	Right stator
18	ScrewM5*8	70	Left stator
19	ScrewM5*50	71	Guide plate
20	ScrewM5*8	72	Fixed haulm sheath
21	Retainer ring 5	73	Fixed haulm
22	Retainer ring8	74	Idler
23	Retainer ring10	75	Idler axis
24	Retainer ring16	76	Unidirectional axle

25	NutM5	77	Unidirectional wheel
26	NutM8	78	Unidirectional wheel bush
27	NutM5	79	Unidirectional wheel gasket
28	NutM6	80	Unidirectional wheel spring
29	NutM8	81	Cutter bracket axis
30	NutM8	82	Cutter bracket axis bush
31	Gasket 3	83	Cutter holder
32	Gasket4	84	Adjusted plate
33	Gasket6	85	Cutter
34	Gasket5	86	Cutter protecting cap
35	Gasket6	87	Protecting cap torsion spring
36	Gasket6	88	Protecting cap axis
37	Gasket4	89	Protecting cap bush
38	Gasket5	90	Cutter extension spring
39	Unidirectional axletree HF1216	91	Cutter holder
40	Axletree 635ZZ	92	Adhesive tape holder
41	Right wallboard	93	Fixed plate of adhesive tape holder
42	Left wallboard	94	Adhesive tape holder
43	Brush stanchion	95	Torsion handle
44	Brush	96	Torsion spring gasket
45	Brush stanchion fixed screw	97	Torsion spring
46	Rotundity stanchion	98	Impact patch spring
47	Connecting haulm	99	Impact patch
48	Post-swing-rod connecting haulm bush	100	Post-swing-rod jointing piece
49	Connecting haulm screw	101	Pre-swing-rod jointing piece
50	Swing-rod extension spring column	102	Strap protecting bracket jointing piece
51	Swing-rod extension spring column	103	Cutter bracket jointing piece
52	Inner copper sleeve		



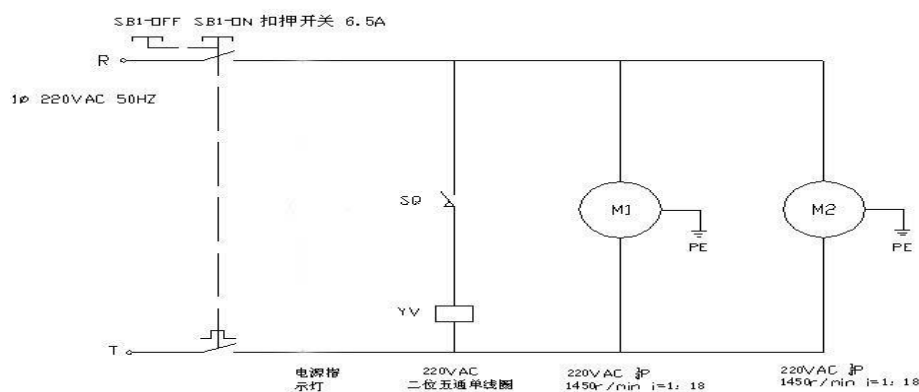
## 8. Malfunctions and solutions

<b>Malfunction and Solution of Folding Sealer</b>			
Number	Malfunction	Possible reason	Solution
1	Adhesive tape can not be cut off	The reamer patch is not sharp enough. The reamer tine is jammed by the bond.	Change the reamer patch Launder the reamer patch
2	There is tail after the adhesive tape is cut off.	The reamer patch is not sharp enough. There is stem on the reamer seating. The pulling spring is too loose.	Check if the nut on the reamer seating is too loose or not. Lubricate the nut if necessary.
3	The adhesive tape can't stick to the carton completely.	Main spring is too loose and there is glue on the axis of the roller. The adhesive tape is disqualification	Adjust the pull of main spring and clear up the roller. Change the adhesive tape
4	The carton is locked in the midway.	The nut on the pasting wheel is too tight, the height adjustment of the carton's transporting line is not suitable, and the main spring is too tight.	Loosen the pasting wheel, regulate the nut, re-adjust the height and loosen the main spring.
5	The adhesive tape is cut down during sealing.	The reamer patch protrudes excessively long.	Lower the place of the reamer patch.
6	The adhesive tape is often off the track.	The pressure of the guiding roller on the carton is not equal.	Re-adjust the space of the guiding roller.
7	The adhesive tape is not on the central line.	The anti-retorse wheel is broken.	Change the anti-retorse.
8	There is abnormity during the sealing.	There is dust on the axletree seating.	Clean the axletree seating and lubricate.

9	There is jut before sealing and drape after sealing.	The speed of different straps is different, and the carton is not at the proper place when pushing into the machine.	Adjust each transporting line's pull to be consistent so that the carton can be put at the correct place.
10	There is drape after sealing	the strain of adhesive tape is too large	decrease the strain of adhesive tape

## 9. Electric control

### 9.1 Electric control sketch



### 9.2 Electric control operation

It's necessary that you should read the manual carefully to know the performances of this machine's all parts and the functions of all control position points before you operate the machine. For the contents of the operation manual, we have considered fully and carefully. If you find any mistakes, problems or unsatisfied places, please feel free to contact us.

#### 1. The electric components

pneumatic control parts:

the air supply of the machine is 5.5-6kg/cm<sup>2</sup>. The air circuit is composed of air source processor, cylinder, electromagnetic valve and air pipe.

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Electric control parts:

the power supply is 220VAC, 50HZ. 1 Phase. The electric circuit is composed of position switch, power switch, indicator and motor.

## 2. Operation procedures

Opening orders:

- ① Adjusting the height and width of the sealer manually.
- ② Connect the air source.
- ③ Press the power switch “on”(ATTENTION: the machine has been switched on now. please be careful and don't get close to the front and back entrance and exit, neither touch the position switch A. After that, the power indicator is on and the machine is in the state of standby.

Closing orders:

- ① Press the power switch “off” and the power indicator will be off.
- ② Then turn off the air source.

**Attention:** When the machine is started, please make sure that no one gets close to the front and back entrance and exit of the machine and touch the position switch A (see the Part M in the picture) for avoidance of any injury.

## 3. The running situation

- ① Switch on the machine and the indicator will be on. The feed belts are running, getting into operation state.
- ② When failure in operation happens, press the bottom “off”. Connect the power to continue the operation after failure shooting. Please don't put your hand into the machine to remove failure when power is on.
- ③ Press the bottom “off” if the feed belts don't run for avoiding burning the motor.
- ④ The “A” point illustrated by the picture functions as checking the case when pushed into the feed belts.

**Attention:** It must be power off when shoot the failures. Safety comes first.

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## 9.3 Inspection and Maintenance of pneumatic control

General method of inspection and maintenance of pneumatic control is very simple. It's necessary that you know the performance of the machine and the functions of all the position control points for the sake of safety.

1. The pneumatic control components: the pneumatic control system consists of air source processor, magnetic valve, cylinder and air pipes. The pneumatic control work with the electric control system to ensure the high performance of the machine.

2. General description to the faults and shooting methods

### ① Faults of air source processor

Reasons: Usually this part won't fault. If happens, it could be caused by manual or it is out of service, or perhaps it is caused by being short of maintenance leading to the processor's leakage.

Trouble-shooting method: maintain frequently or change a new one.

### ② Faults of electromagnetic valve

Reasons: blockage in the electromagnetic valve and the coil is burned out. Or the looseness of the screws results in the bad connection between the coils and valve body and wearing of electromagnetic valve pistons. Leakage of the electromagnetic valve thus happens.

Troubleshooting method: fix or change for a new one.

### ③ Faults of the cylinder

Reasons: Inside leakage caused by wearing of cylinder pistons or out of service.

Troubleshooting method: change for a new one.

The above are common troubleshooting methods. The oil lubrication of pneumatic control parts is also important.

## 9.4 Inspection and repair of electric control

The method of inspection and repair of electric control is very simple. Before you repair the machine you should know all the part's performance of the machine and the functions of all position control points clearly for the sake of no accidents. Only

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professional electrician can maintain and repair the machine.

Common faults:

1. Unaction of the folding part when cases touching the “A” point

Reasons: the position switch of “A” point is broken, or the connection of electric circuit is bad, or faults of the air circuit.

Troubleshooting method: check control points relating to the A point and check whether the electric circuit looses or not. Press down the electromagnetic valve to check whether the folding part works or not so as to determine the specific positions of faults.

2. The folding part doesn't fold the rear cover of cases when they leave the A point.

Reason: the same to the above circumstance. Check whether the position switch is ok or not and check the electromagnetic valve.

Notices: the control voltage and power supply voltage are both 220VAC. Pay attention for avoidance of electric shock.

## 9. 5 Common malfunctions and solutions

1. Working improperly

a) Check whether the air pressure of the air source is right or not and whether the pressure regulating valve is in the right position or not.

b) Check whether all the parts of the machine are working properly or not.

2. Abnormal power supply

① Check whether the switch is ok or not.

② Check whether the voltage is steady or not.

③ Check whether the wires loose or not.

3. Cylinder working improperly

① Check whether the air pipe works or not.

② Check whether the electromagnetic valve is right or not and whether the connection between electrifying coils and electromagnetic valve is good or not.

4. The motor doesn't run.

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① Check whether the thermorelay near the power switch trips or not and whether the power is off.

② Check whether the motor is right or not.

③ Check whether chains works properly or not.

④ Check whether motor shafts work normally or not.

⑤ Check whether screws loose or not.

5. Belts working improperly

① Check whether the tightness of belts need adjustment or not.

② Check whether belts are OK or not.

③ Check whether motor shafts work well or not.