

CE

**GPL-4030 Full Automatic Shrink Wrapper**  
**Use, Maintenance and Spare Parts Handbook**



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## **PART 1. SAFETY INFORMATION**

Before operating the machine, please read the following information carefully and pay special attention to the contents marked with “!”.

- ! Power supply must be grounded and has fuse thermal protection.**
- ! Environmental relative humidity must be within 55%.**
- ! Please contact our technical personnel or authorized dealer when a problem occurs, do not interfere directly. We refuse to undertake the compensation responsibility of personnel or property loss caused by direct interference of buyer.**
- ! Please confirm the main switch in “OFF” position and the plug isn’t plugged in the outlet.**
- ! Please do not turn on the control panel at will.**
- ! Please press the emergency stop button immediately if an abnormal case happens during operation.**
- ! Please do not operate the machine in the open air or in the environment that can be affected by such factors as water vapor, corrosive gases, abrasive dust, or in the environment with the danger of fire or explosion, or in the environment needing fire prevention items in any case.**

The noise should be under 75dB (A) in the operating environment.

Please keep the user manual properly so that you can refer to it at any time in order to guarantee the correct operation.

## **! Qualification for operating personnel**

Only the personnel meeting the following qualifications can be allowed to operate this machine:

Qualified machine operating personnel

Mechanical maintenance personnel

Electrical maintenance personnel

### **A. Machine operating personnel**

Only qualified operating personnel who have received training can operate the machine when it is running. The qualification includes knowing the main switch and emergency stop button, and all other control buttons and instruments, being able to replace plastic film accurately and quickly, and to adjust, start, stop and reset the machine according to the sizes of different products.

### **B. Mechanical maintenance personnel**

Eligible mechanical technicians can also operate the machine. On condition that the mechanical part needs adjustment, maintenance or repair, they can run the machine without the protection equipment, but they can't operate the electrical system.

### **C. Electrical maintenance personnel**

Eligible electrical technicians can also operate the machine. On condition that the electrical part needs adjustment, maintenance or repair, they can run the machine without protection equipment.

## **PART 2. PACKAGING**

The GPL-4030 fully automatic shrink wrapper is wrapped by a stretch film and packed in a wooden case with the wooden pallet under the bottom of the machine and the bottom of the wooden case fastened by ropes.

The machine cannot bear great impacts for it is wrapped only by the stretch film, so take care when taking down the packaging.

In the wooden case, there is:

1. One machine;
2. One silica gel bar;
3. One set of tools; and
4. One user manual.

The waste film cage and the waste film block ring of the machine are placed on the belt of the back belt conveyor to avoid damage to them during the transportation.

### **PART 3. MACHINE TRANSPORTATION AND INSTALLATION**

1. First open the wooden case, take down the stretch film and other packaging materials.
2. Take off the ropes used to fasten the machine and the pallet, and transport the machine from the pallet to the ground with forklift or Pallet Jack.
3. Transport the machine to the working place and make sure that it keeps a certain distance from other machines or walls.
4. Make sure the foot cups touch the ground so the machine can be level.
5. Install the waste film block ring and the waste film cage on it.

## **PART 4. MACHINE TECHNICAL FEATURE AND DESCRIPTION**

### **Machine: Fully automatic shrink wrapper GPL-4030**

It is a fully automatic shrink wrapper using sealing and cutting films to wrap products. It can wrap all kinds of products, including food and other products, but they should be within the given size.

It can be used independently or with other machines on a assembly line. Meanwhile it can be used with a thermal shrink machine, which is installed at the exit of the back belt, i.e. on the left of the machine.

Products prohibited to be wrapped:


- unconsolidated, granular products
- wet products
- liquid and gelatinous products not wrapped in other packaging bags
- Highly flammable products
- Explosive products
- Steam sol cans with gas under pressure, etc.
- Anything that can damage the machine or the health of operator, such as acid, corrosive substance, and salt substances, etc.

When it is used for food packaging, the films used must be of food grade and can have direct contact with food without any harm.

## PART 5. MACHINE NAMEPLATE AND WARNING SIGNS

The production of the machine is in line with the EC Machines Directive EEC 98/37, the Low Voltage Directive (DBT) EEC 73/23 and its succeeding amendments, (EMC) EEC 89/336 and its succeeding amendment. All parts of the machine are in line with these directives, and the CE sign confirms its consistency.

YS-ZB-5AY		220 V, 50 Hz	
Year:	<input type="text"/>	Phase:	Single
Serial number:	<input type="text"/>	Rated power:	3000 W
		Air pressure:	5-7 kgf/cm <sup>2</sup>
		Net weight:	420 kg
		Transportation speed:	18 meter/min
		Wrapping speed:	20-25 piece/min



The warning signs cannot be taken off or covered by other items. If it is illegible, you can ask the manufacturer for a new one.

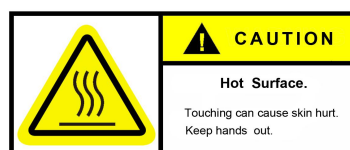
**Beware of mechanical injuries:** in the position where it is prone to cause mechanical entanglement, rolling and grinding, shearing



**Beware of hand:** in the position where it is easy to cause hand injuries



**Beware of burns:** in the heat emitting or heating parts of the machine where high temperature is generated





**Beware of electric shock:** on the electrical equipment and wiring with the possibility of a shock hazard.

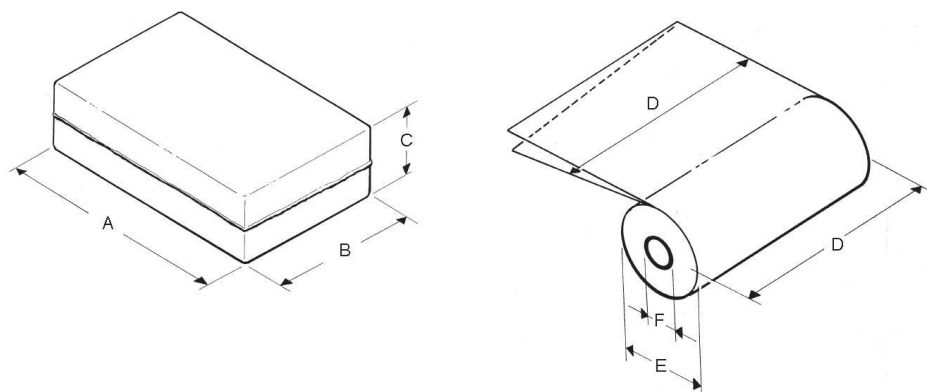


## PART 6. MACHINE BASIC PARAMETERS AND COMPONENTS

### 6.1 Machine basic parameters

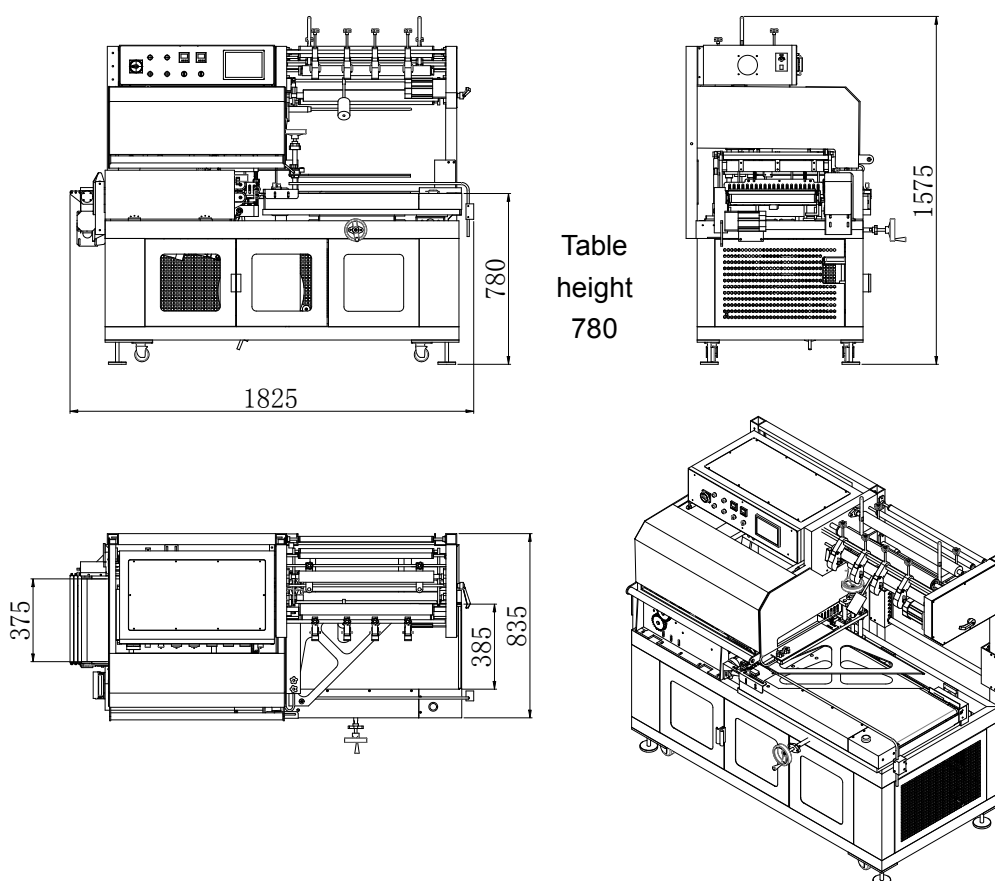
Item	Model
	GPL-4030
Power supply	1P, 220V, 50Hz, 3kW; 16A
Air pressure	0.5-0.7MPa
Transport speed	18m/min
Packaging speed	20-25 bags /min
Worktable height	780mm±50mm (customizable)
Sealing knife	Material: stainless steel, spray Teflon
	Sealing knife size: 550mm×450mm
Cut film and sealing time	< 1.5 sec/section
Seal temperature	180-225℃
Film parameter	Type: POF shrink film
	Thickness: 0.015 - 0.019 mm
	Film lateral contraction ratio: 60%
	Film longitudinal contraction ratio: 60%
Noise	≤75dB(A)
N.W	420 kg
G.W	520 kg
Machine size (L×W×H)	L1650×W770×H1520mm
Packaging size (L×W×H)	L1850×W946×H1695 mm
Environmental conditions	Relative humidity≤90%, temperature 0℃-40℃

## Film and packaging size range

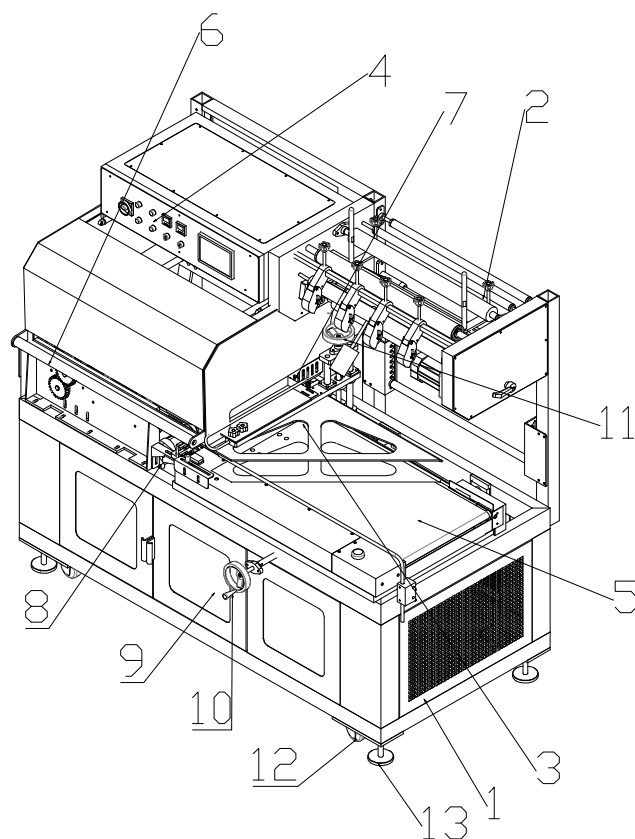


- (1) Bag min. package size: (A×B×C) 90mm×90mm×10mm;
- (2) Bag max. package size: A+C<500mm, B+C<400mm, C<120mm, B<370mm;
- (3) Film roll size: (D×E×F) 550mm × 250mm × 75mm

## 6.2 Machine appearance

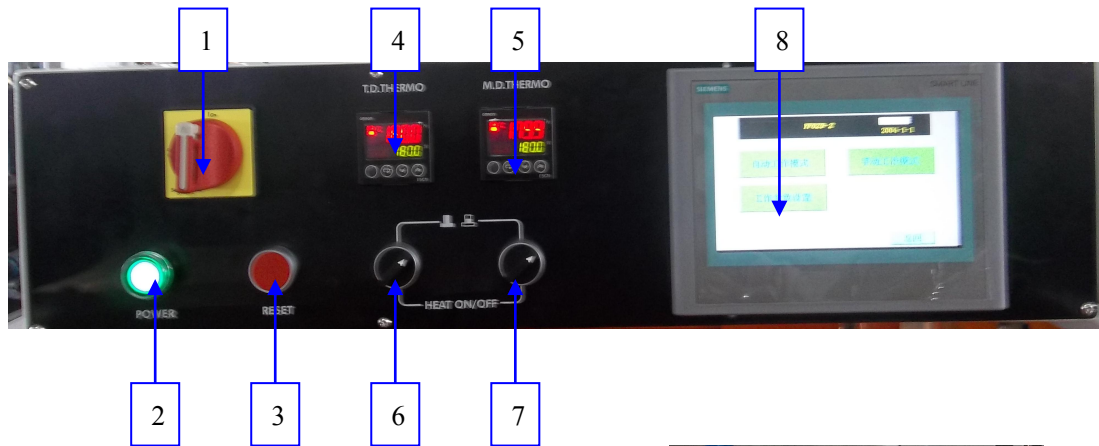


### 6.3 Machine components



1. Machine frame
2. Film installing unit
3. Film spreading unit
4. Control panel
5. Front belt conveyor
6. Back belt conveyor
7. Cutter unit
8. Side film pulling unit
9. Waste film recycling unit
10. Width adjusting handle
11. Height adjusting handle
12. Foot wheel
13. Foot cup

## PART 7. MACHINE CONTROL PANEL



1. Main power switch
2. Start button
3. Stop button
4. Horizontal blade temperature controller (to set heating pipe temperature and show real temperature)
5. Vertical blade temperature controller (to set heating pipe temperature and show real temperature )
6. Transverse temperature controller switch (this knob status: open)
7. Longitudinal temperature controller switch (this knob status: open)
8. Touch screen panel
9. Emergency stop button
10. Regulation combination

## **PART 8. POWER SUPPLY CONNECTING, LIGHTING AND AIR SOURCE CONNECTING**

Users are responsible for providing an electrical distribution system (control panel, socket, grounding wire system, etc.) in line with the current regulations, especially the differential switch (current intervention limit: 0.03A). Power supply must fit the machine and comply with the set limits in corresponding standards. CEI-EN 60204-1 Standard is applied to GPL-4030 machines, so the power supply must have a maximum of 10% more than the voltage, a maximum of 1% in sustained way and a maximum of 2% more than the frequency in short time. This system must have a differential automatic magnetic switch, a grounding system ensuring the minimum parameter according to the standard, and it must comply with the law requirements of the nations where the machine is installed. Before connecting, confirm that the main power supply is in line with the information on the nameplate, and make sure the main switch is in "OFF" position.

Do not use the extension wire or temporary cable for a mobile circuit. If necessary, ask the trained or qualified personnel to do that.

### **Lighting**

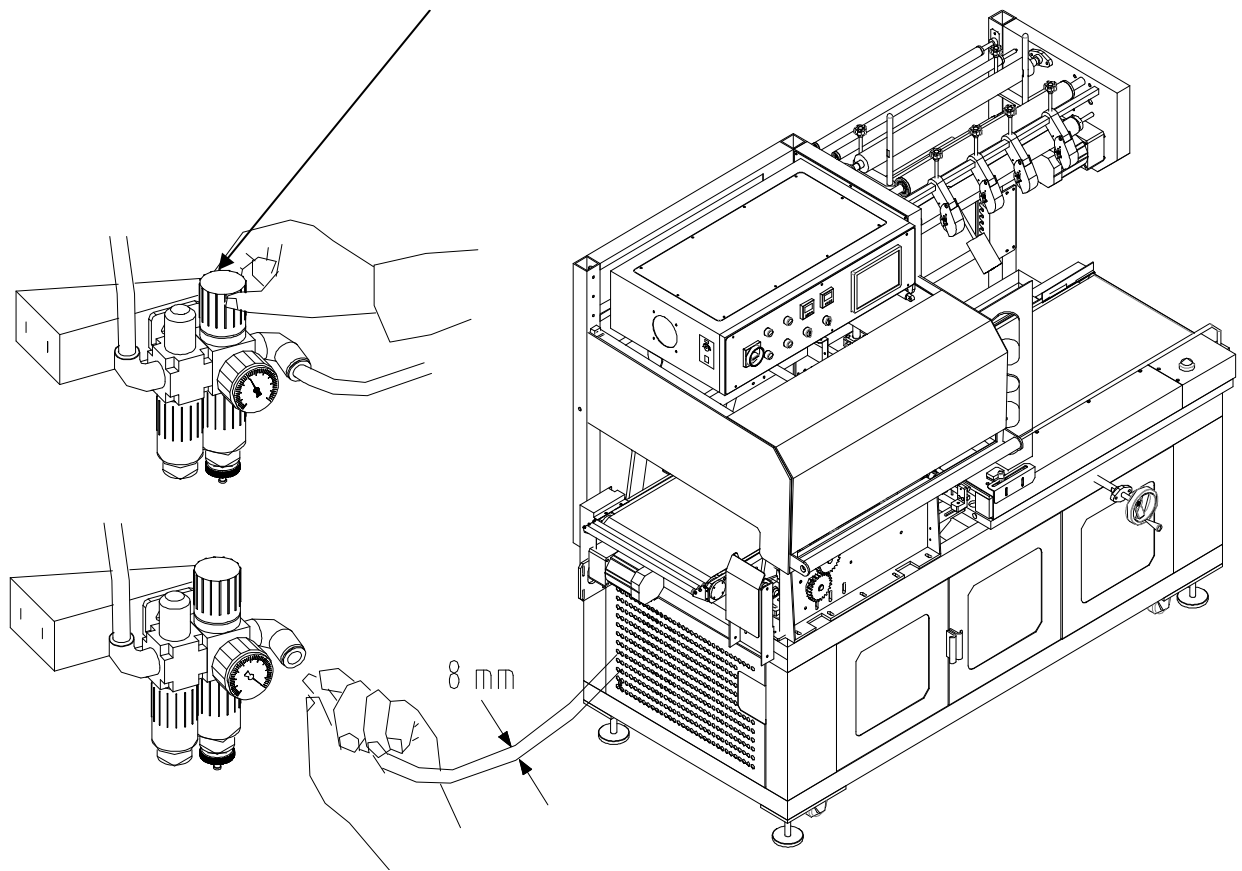
Indoor lighting must be able to eliminate the dark area always and guarantee the operation in the greatest safety when cleaning, using, repairing, etc.

### **Air source connecting**

Insert the air pipe into the joint of machine regulation combination, so the machine is connected to the air source. Remember the air pressure should be under 0.7 MPa.

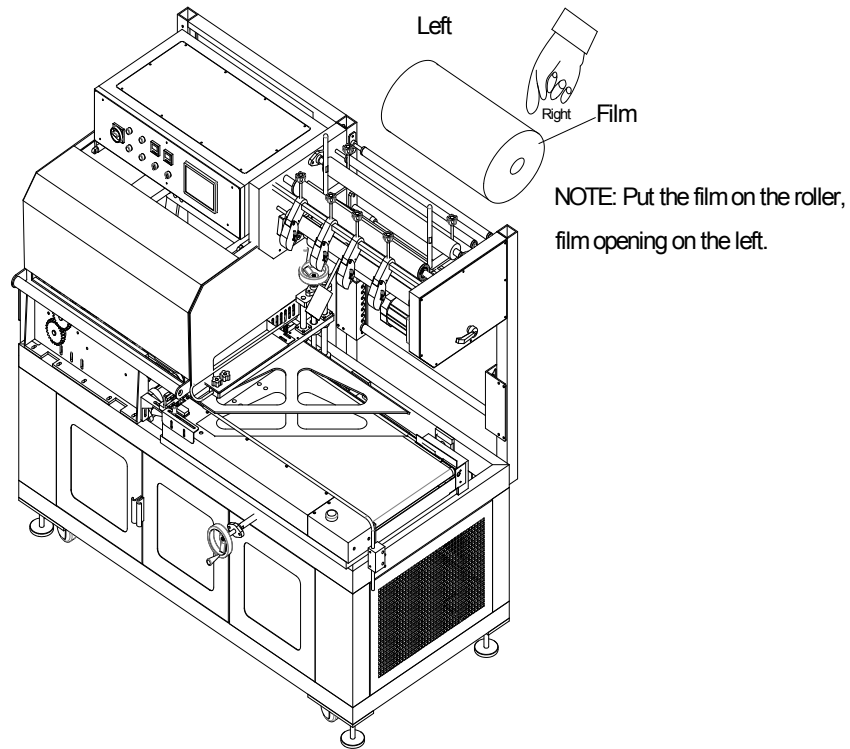
Check the pressure of the air source, if the pressure is under the needed pressure, pull up the regulation combination knob, and rotate the knob so that the pressure reaches the needed one (0.6Mpa), and then push the knob down and lock in.

**Attention:** The maximum pressure must be under 0.7MPa.



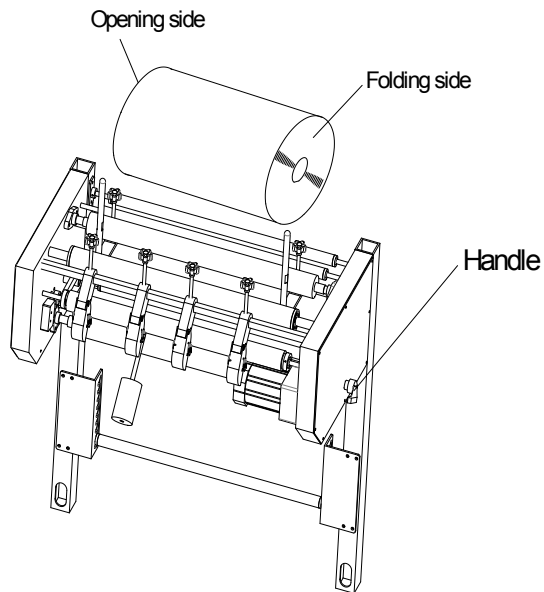
## PART 9. FILM INSTALLATION AND THREADING

1. According to the size of the object to be packaged, put a roll of suitable film on the roller of the film installation frame (in the position pointed by the right hand as shown in the figure below).





2. Turn the handle, and open the roll needle wheel which is pressed on the rubber coating roller.



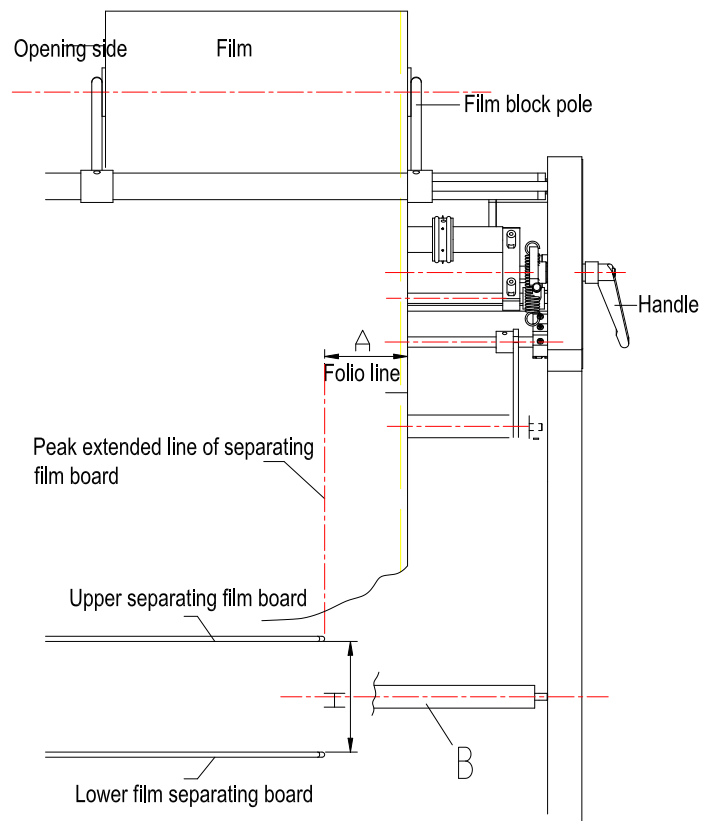
3. Pass the film through the opened needle wheel and the rubber coating roller.

! Take care not to be poked by the needle on the needle wheel when passing film through needle wheel and roller.

! Attention: When the film weight is over 15kg, it is advisable that two workers take it onto the film frame.

4. Adjust the film position, and then fix the film block pole in case that the film falls down when rotating.

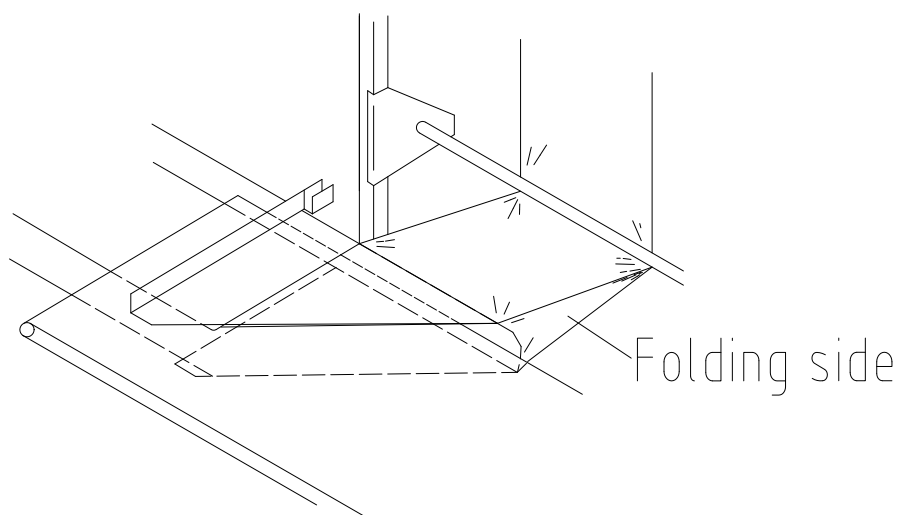
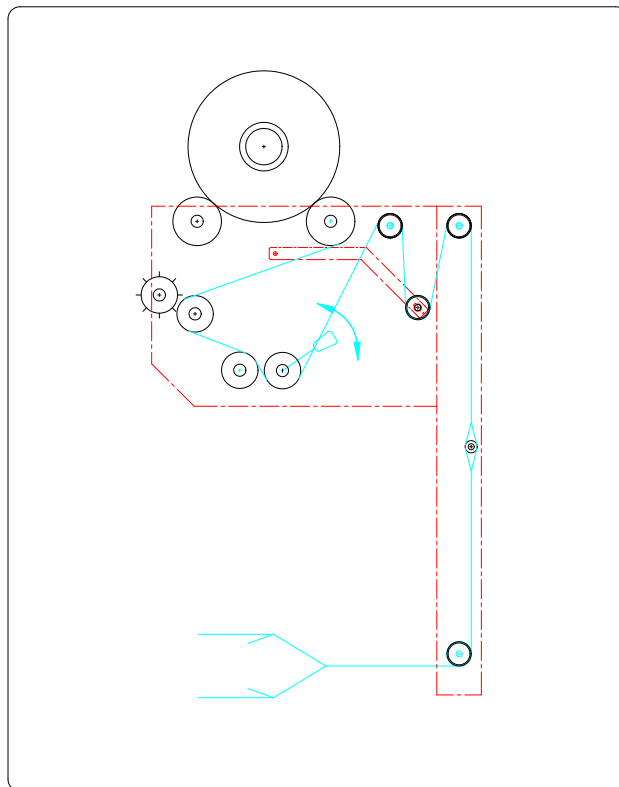
5. When the distance(H) between the up film separating plate and the down film separating plate becomes larger, the distance (A) between the folio line of the film and the extended line of the peak of film separating plate also becomes larger.  $H=2A$ .

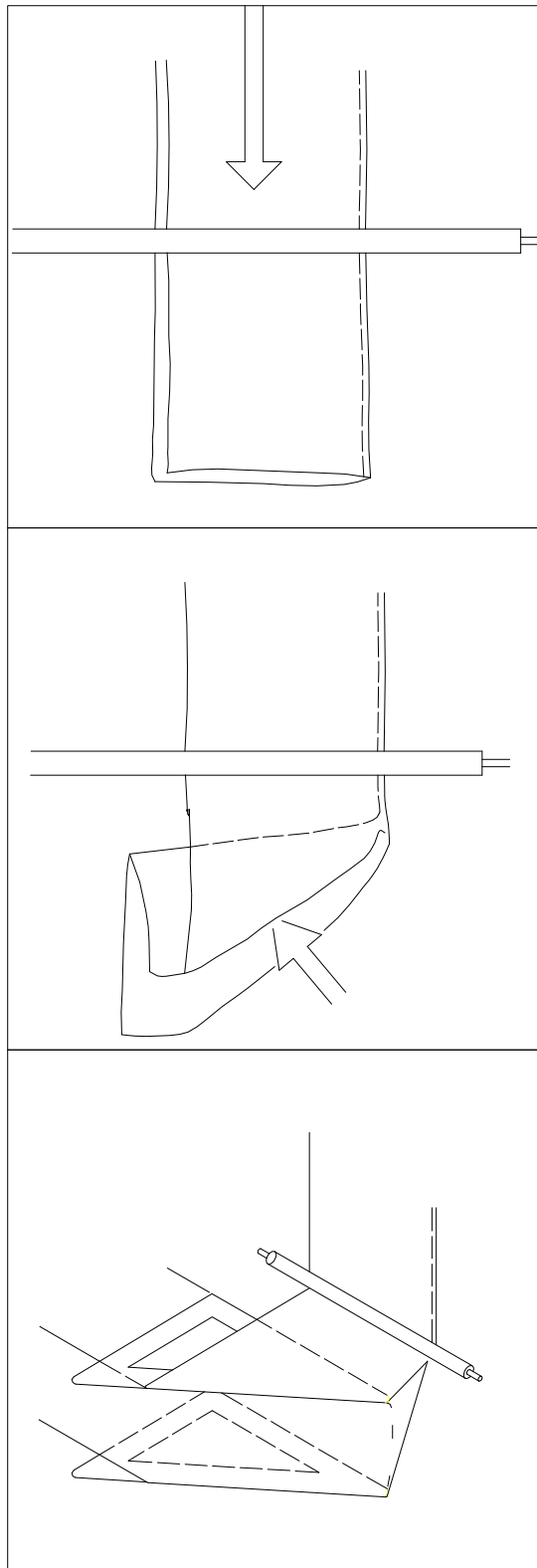


6. Make sure the transition roller B in the central place between up separating board and down separating board.

## Film threading

1. Put the film on the film roller with the opening surface of film on the left.
2. Loosen the film, and thread the film according to the following figure.





**Attention:**

- ! Before the initial operation, turn the handle, press the needle wheel back to the rubber coating roller.

## PART 10. TOUCH SCREEN OPERATION

Touch screen is the human-machine interface with touch keys for monitoring the status of the machine. You can know the working status of the machine through the information displayed on it, and modify functional parameters of the machine in a real time manner through the operation on the parameter menu of controllers.

### 1. Auto screen



- (1) Start: start machine running;
- (2) Stop: stop machine running;
- (3) Reset: reset the machine;
- (4) Forming quantity: display current yield ;
- (5) Clean: zero clearing the yield
- (6) Information display: show what kind of fault occurs for the operator. Common fault display and solutions are shown as below:

Fault display	Solution
Protecting the knife from cutting the object! Please restart it after resetting.	✧ Press the reset button, remove the object, and adjust the over-packaging delay cutting
Film feeding time is too long. Film may be reversed.	✧ Set an appropriate film feeding time for film cutting.
There is an object on the photoelectric switches of the cutter, the film can't be cut.	✧ Remove the object.
Edge film is disconnected, please check it.	✧ Reel the waste film onto the waste film tube.
Safe door is open.	✧ Close the door.
Stopping	✧ Check the equipment, and carry out troubleshooting.
Side knife pressing and cutting film too long	✧ Check that the side knife cylinder works normally; check that the photoelectric switches work normally. And then press the reset button, and restart the equipment.
Servo fault	✧ There is something wrong with the servo motor, check the servo motor.
Servo is not in home position, please press servo zero seeking.	✧ Enter into the auto mode, and press the servo zero seeking.
Parameters not set	✧ Set parameters.

## 2. Manual screen



Each key can be for single-action operation for the manual operation of controlling front belt, back belt, cutting film, pulling edge film and feeding film motors.

### 3. Parameter screen



You can set all parameters such as hot cutting time, packet delay time, post-cutting pulling film time, cooling time, knife frame open time, roller standby delay time and so on.

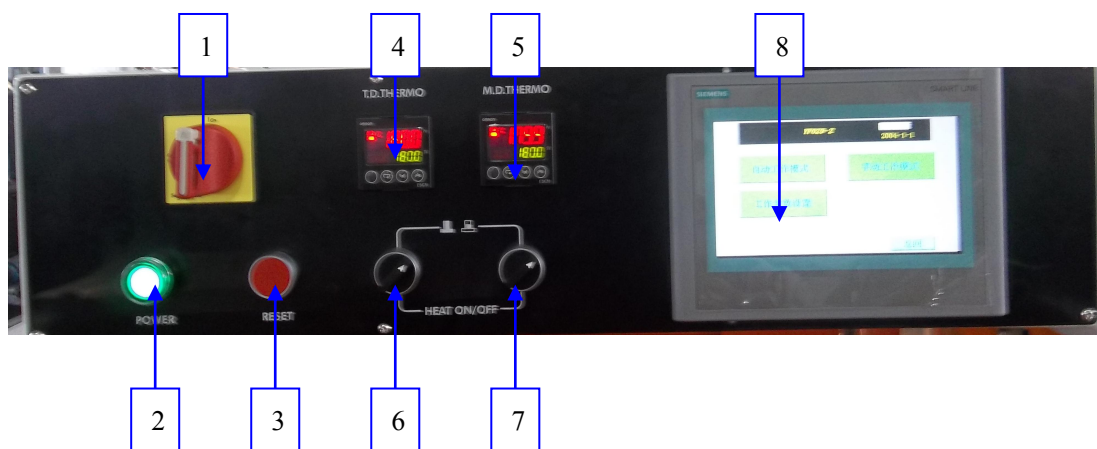


## PART 11. INITIAL OPERATION AND USING OF THE MACHINE

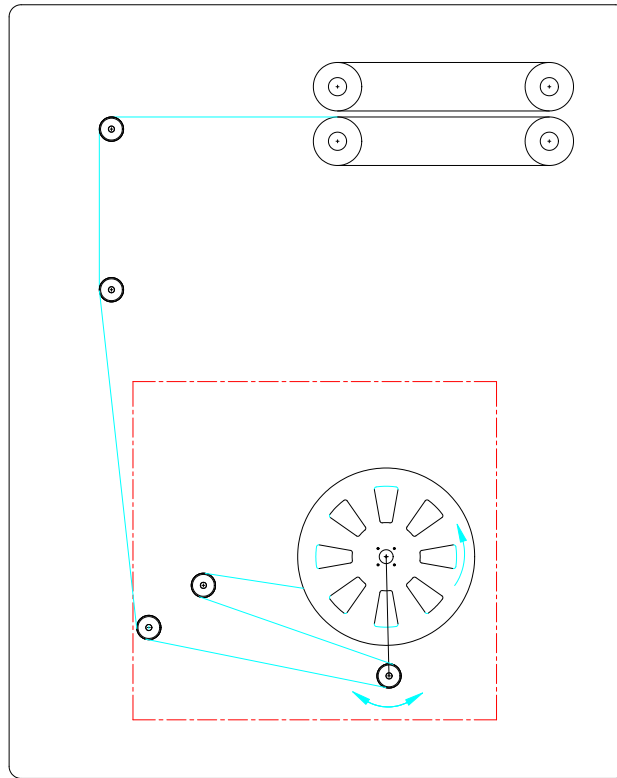
1. Turn on the power main switch (1), and turn the knob to “ON”.
2. Touch screen enters into the main menu.
3. Turn on the temperature controller switch (6) (7), and set the initial temperature of horizontal cutting blade and vertical cutting blade to 180°C through the temperature controller (4) (5), then adjust the temperature to the needed one according to the thickness and material quality of the film used. (Note: The temperature is set when it leaves the factory.)

**Attention: The set temperature should be lower than 225°C.**

4. Place or replace the film, and enter into the “auto work mode” menu through the touch screen (8) main menu, press the “reset” button, and then the “return”, and then enter into the “manual work model” menu (attention: do not press “start” button on the “auto work mode” menu! ), and thread the film to the film champing roller, as shown in the film threading diagram.



5. Press “cutting film” on the touch screen.
6. Open the safety guard door, pull the upper- and lower-layer films on the film opening edge to the collecting side film position, and lift the upper chain plate, then squeeze the film between upper chain plate and lower chain plate.
7. Close the safety guard door.
8. Press “Pulling side film”, until the waste film length reaches the place of recycling waste film, tie the ends of the waste film to the waste film plate, as shown below.
9. After the waste film is reeled, press “cutting film”, then the front end of the first package is done.
10. Operating on the touch screen, return to the “auto work mode”, press “reset”, and then “start”, so that the machine enters into the auto work mode. What you need do only is putting the object on the belt conveyor along baffle at the edge of the front belt.



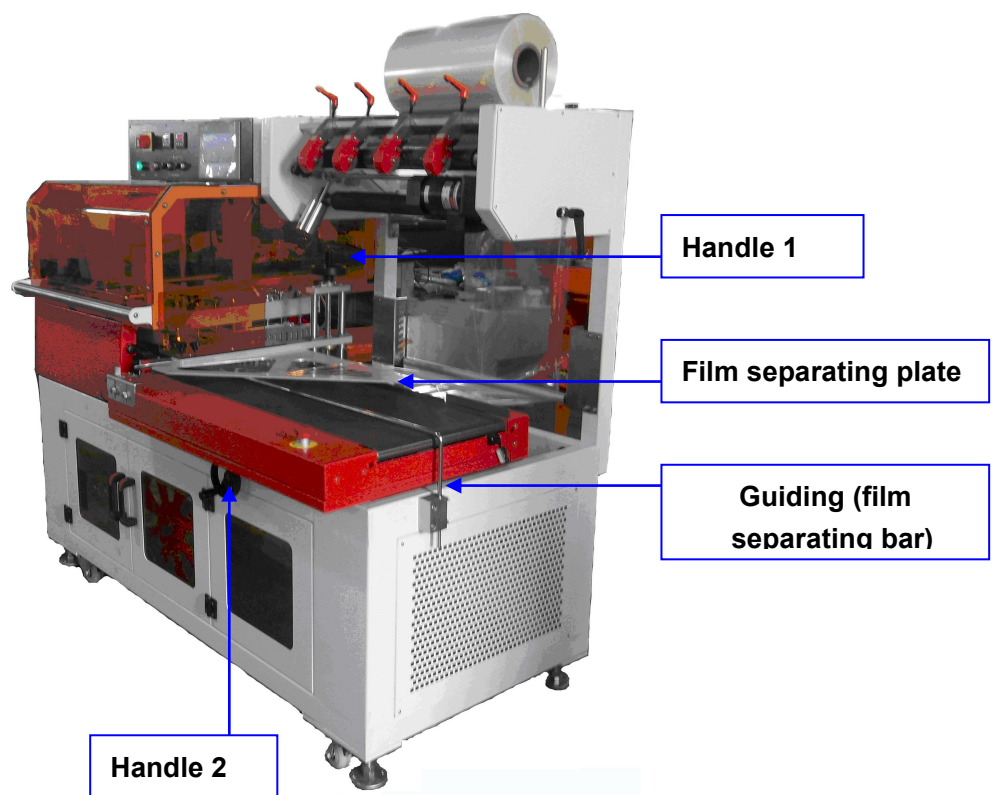
**Waste film recycling diagram**

## PART 12. ADJUSTMENT

1. Determine the size of sealing bag according to the length and height of products.
2. Increase or decrease the length of film needed for single products through the over-package delay time.

Our suggestions: initial set parameter: 0.2s for short products, 0.5s for high products. It is necessary to adjust the parameter after several tests so as to find the most suitable parameter.

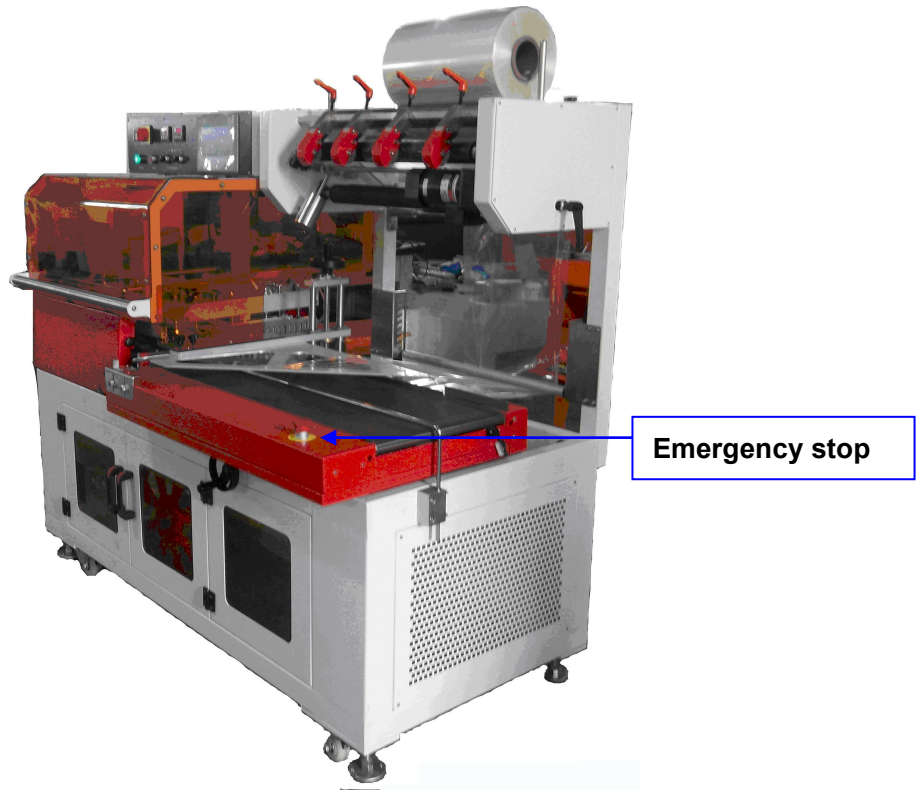
3. Adjust the height of film separating plate so that the object can pass through it smoothly. Sway the handle 1 on the top of separating film part to adjust the height of separating film board, to find the lowest height at which the object can pass through film separating plate smoothly.
4. Adjust the belt guiding, loosen the handle 2 beside the belt conveyor, then pull out the belt conveyor, so the object put along the belt baffle does not have friction with the guiding, that's OK, and lock handle.



## PART 13. RUNNING OF MACHINE

! Do not put anything into the cutting blade area during machine running. And do not put anything on the belt conveyor except putting object on the front belt conveyor during the normal operation.

! Press the emergency stop button immediately when abnormal operation occurs.

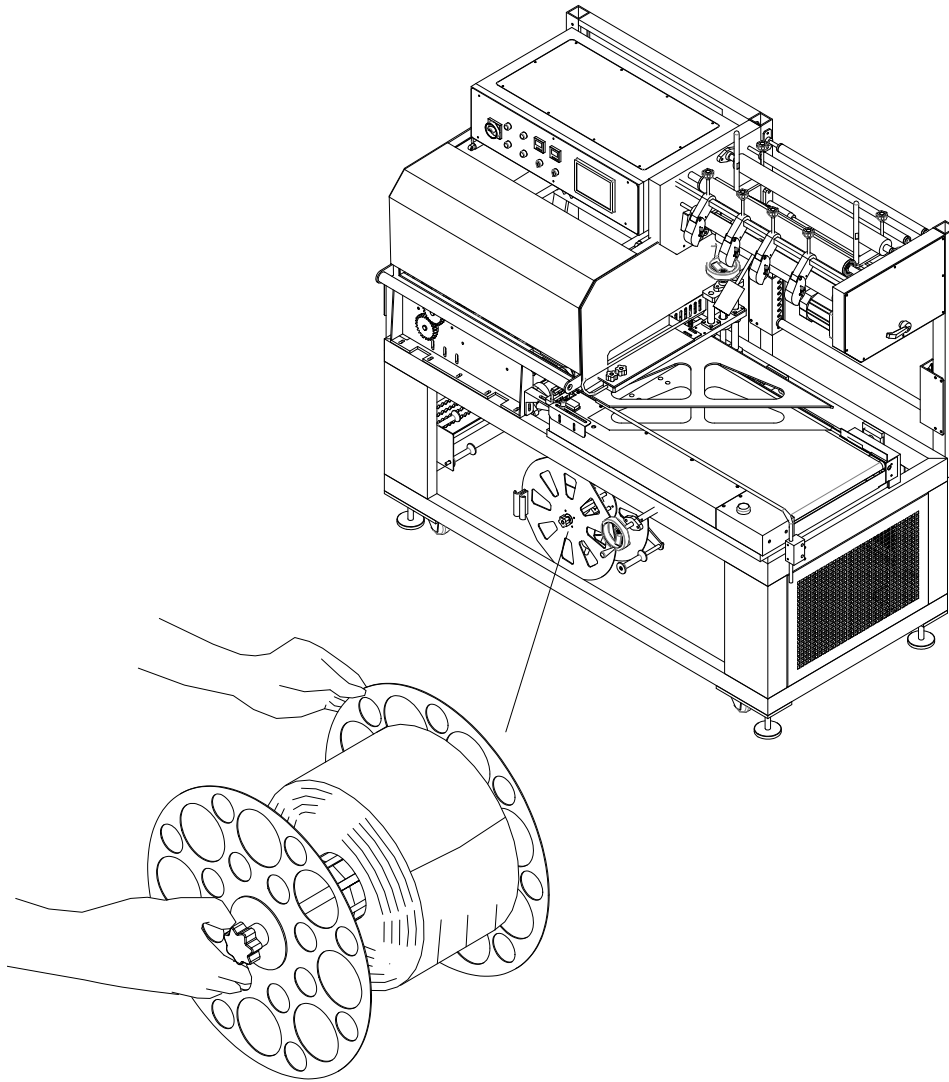


After the machine breakdown is removed, rotate the emergency stop button clockwise and the button rises, then press the reset button and the machine resumes working.

! **Attention:** When the object falls down and stops below the cutting blade, the safety guard system can stop machine automatically. Then take the object out, and press the reset, and machine resumes working. In the same way, when the emergency stop button is pressed or the machine stops for any reasons and needs to resume running, please press the reset button and then conduct next process.

## PART 14. REMOVING WASTE FILM

After the roller is full of waste film, rotate the plum flower handle to dismount the outer waste film block ring, then take the waste film out. Attention: leave a little waste film so that it can be tied to the block ring again, then install the outer block ring back and screw on the plum flower handle.



## PART 15. MACHINE MAINTENANCE

The packaging material used by the machine is film, so it is possible that the film sticks to the cutting blade and the cutting blade cannot function well. In order to keep the blade in a good condition, it is suggested that the user should wipe off the film residue left on the blade with a soft cloth after every shift of work (at least once every day).

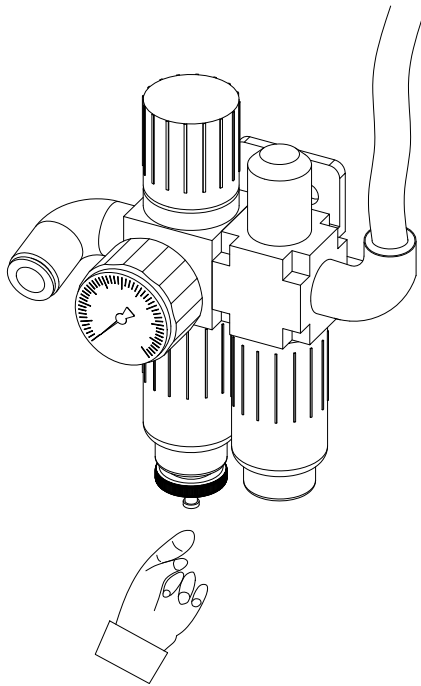
! It would be better to wipe the blade immediately after turning off the power supply when the blade temperature is between 90℃ and 100℃, for that can avoid the damage to Teflon on the blade.

! Before operating the machine, make sure the power supply switch is in “OFF” position and power supply isn’t be inserted in the socket.

! Watch out to the high temperature for fear of scalding.

! Do not wipe off the film residue with rough cleaning tools, brushes or metal blades, etc.

! Regularly clear the water out of the regulation combination. Screw off the screw at the bottom of the glass bottle, and the water will flow out.



! Clean the plastic sprayed or plastic parts with soft cloth sprayed by the cleaning agent. Do not clean them with water or other products with solvency ingredient, for that can damage the machine or the surface of parts.

## PART 16. COMMON FAULTS AND TROUBLESHOOTING

Phenomenon	Cause	Solution
Each buttons is in normal condition, press the button but the machine does not perform the relevant operation.	<ul style="list-style-type: none"> <li>✧ Emergency stop is not on.</li> <li>✧ Safety guard door is open.</li> <li>✧ Reset button is on (the light is on)</li> </ul>	<ul style="list-style-type: none"> <li>✧ Turn on the emergency stop</li> <li>✧ Close the safety guard door</li> <li>✧ Press the reset button (light is off)</li> </ul>
There are no above problems, press the belt running button, but the belt doesn't run.	<ul style="list-style-type: none"> <li>✧ The micro active switch of blade frame is in protecting mode.</li> </ul>	<ul style="list-style-type: none"> <li>✧ Adjust the micro active witch.</li> </ul>
The machine continuously cuts film.	<ul style="list-style-type: none"> <li>✧ Photoelectric light is not aimed in the right direction (1)</li> </ul>	<ul style="list-style-type: none"> <li>✧ Readjust it.</li> </ul>
Film cannot be cut neatly.	<ul style="list-style-type: none"> <li>✧ Bad film quality</li> <li>✧ Blade temperature is too low</li> </ul>	<ul style="list-style-type: none"> <li>✧ Replace the film</li> <li>✧ Heighten the temperature</li> </ul>
Sealing is not firm, easy to be damaged.	<ul style="list-style-type: none"> <li>✧ Sealing temperature is too low</li> <li>✧ Cutting time is too short</li> <li>✧ Up and down blade base occlusion is not firm</li> <li>✧ Cutting blade high temperature protective cloth is broken</li> <li>✧ Cutting blade is worn or sticks with film residue</li> <li>✧ Air source is not enough</li> </ul>	<ul style="list-style-type: none"> <li>✧ Reset the temperature</li> <li>✧ Adjust the time</li> <li>✧ Adjust the lower cylinder position</li> <li>✧ Replace it</li> <li>✧ Replace the cutting blade or wipe off the film residue</li> <li>✧ Enlarge air source</li> </ul>
Sealing blade ascends during descending.	<ul style="list-style-type: none"> <li>✧ Sealing time is too short</li> <li>✧ Micro-action switch is in an improper position</li> </ul>	<ul style="list-style-type: none"> <li>✧ Adjust the time appropriately</li> <li>✧ Readjust it</li> </ul>
Belt conveyor moves to side.	<ul style="list-style-type: none"> <li>✧ Regulating roller is not level</li> </ul> <p>Note: Front belt conveyor moves to the loose side, and the back belt conveyor to the tight side</p>	<ul style="list-style-type: none"> <li>✧ Raise the roller tension screw of the loose side towards which the front belt conveyor moves</li> <li>✧ Lower the roller tension screw of the tight side towards which the back belt conveyor moves</li> </ul>
Displayed temperature is greatly different from the set one	<ul style="list-style-type: none"> <li>✧ Thermocouple is broken.</li> <li>✧ Thermocouple is in an improper position</li> </ul>	<ul style="list-style-type: none"> <li>✧ Replace it</li> <li>✧ Readjust it</li> </ul>

(continued)

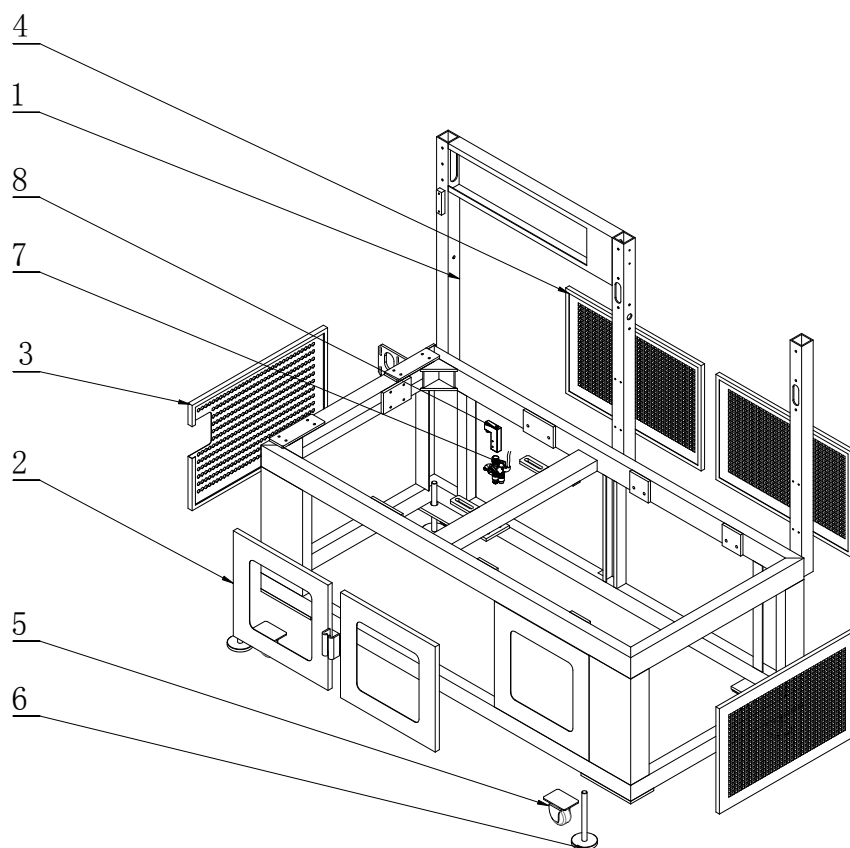
Phenomenon	Cause	Solution
Separating film is not steady.	<ul style="list-style-type: none"><li>✧ Up and down film separating plate are in an incorrect position</li><li>✧ Transition roller is not in the central position</li></ul>	<ul style="list-style-type: none"><li>✧ Align the up and down film separating plate</li><li>✧ Adjust the position of the transition roller</li></ul>
Cutting blade does not warm up	<ul style="list-style-type: none"><li>✧ Heating pipe is broken</li></ul>	<ul style="list-style-type: none"><li>✧ Replace it</li></ul>

(1) Photoelectric light is not aimed in the right direction: It seems that the photoelectric light has aimed correctly (yellow light on, red light off), but when the film is shaken between the between photoelectric lights, both yellow light and red light flash.



## PART 17. MAIN PARTS DIAGRAMS DETAILED LISTS

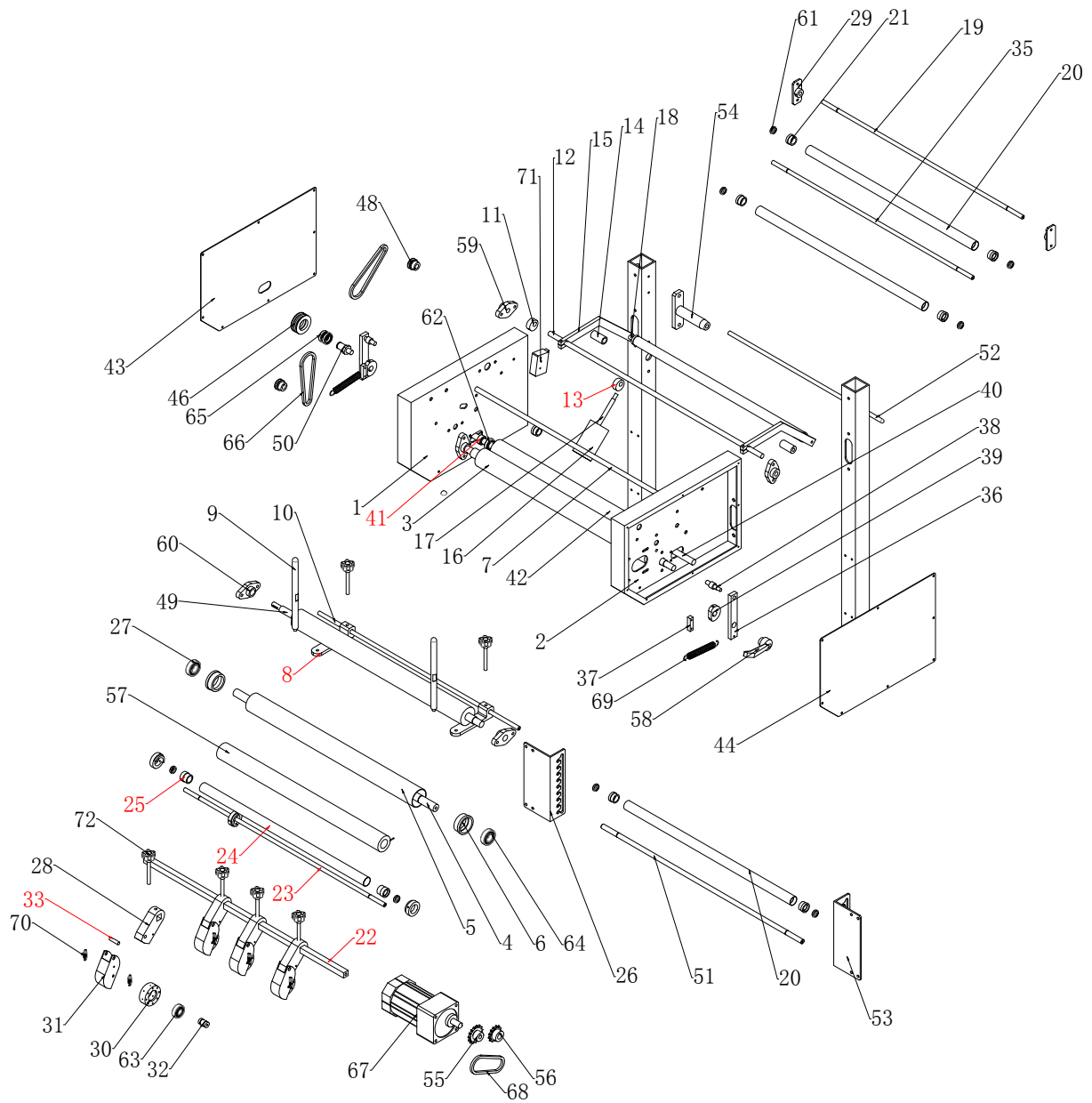
### 17.1 Machine frame



**Detailed Parts List**

NO.	Name	Code	QTY
1	Machine frame	LA-01	1
2	Front panel	LA-01-31	2
3	Left sealing board A	LA-01-32	1
4	Right sealing board A	LA-01-33	3
5	Foot wheel		4
6	Foot cup		4
7	Regulating combiner		1
8	Magnetic valve		1

## 17.2 Film installing unit



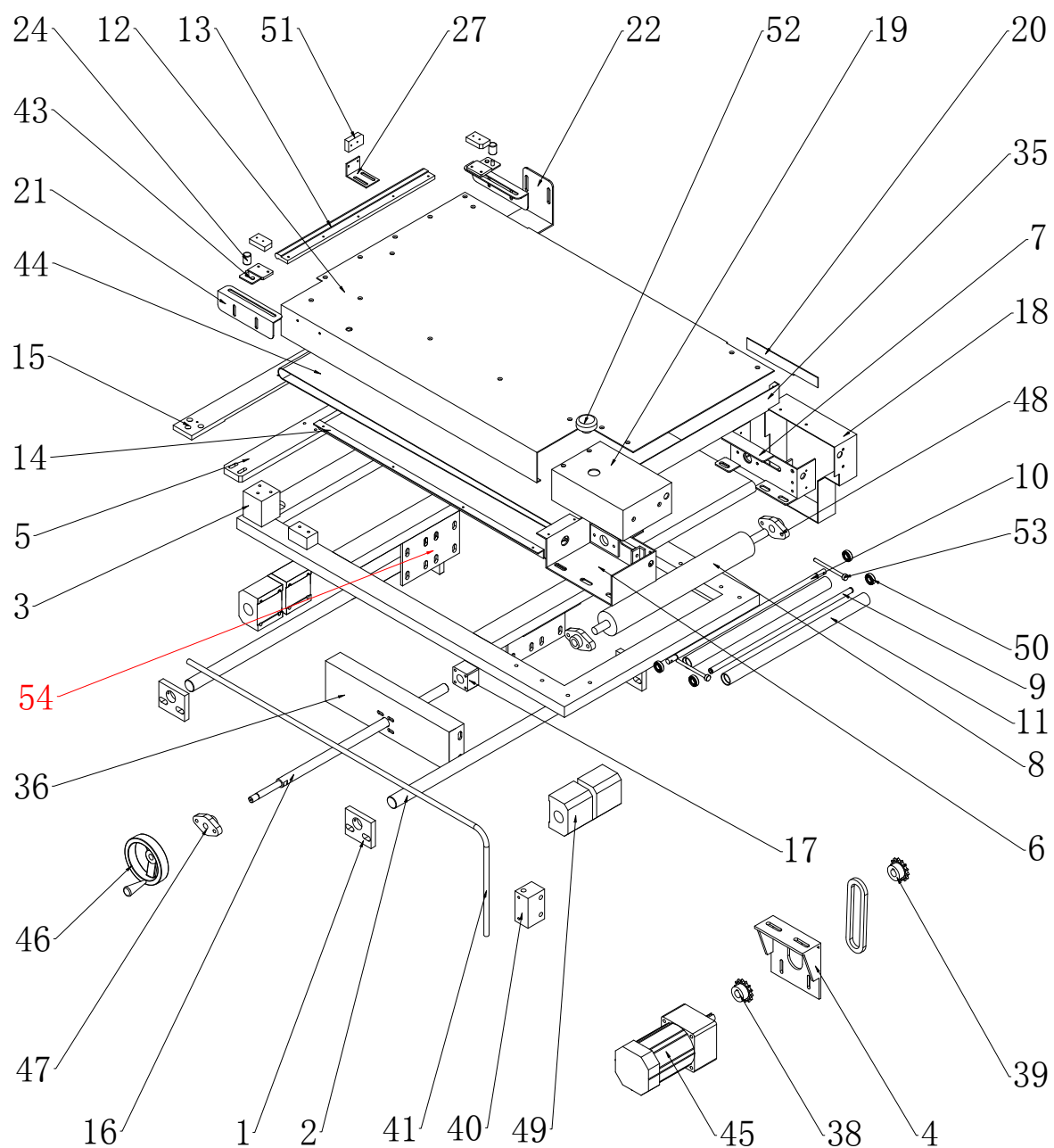
### Detailed Parts List

No.	Name	Code	QTY	Remark
1	Left support board	LA-02-01	1	
2	Right support board	LA-02-02	1	
3	Drive roller 1-1	LA-02-03	1	
4	Prop film shaft core	LA-02-04	1	
5	Support film roller body	LA-02-05	1	
6	Support film roller blocking	LA-02-06	2	
7	Fix shaft A	LA-02-07	1	
8	Move adjust board	LA-02-08	2	
9	Stop pole	LA-02-09	2	
10	Fix shaft B	LA-02-10	1	
11	Induction ring	LA-02-11	1	
12	Induction shaft	LA-02-12	1	
13	Eccentric bushing	LA-02-13	1	
14	Limit stop pin	LA-02-14	2	
15	Swing arm	LA-02-15	2	
16	Balance weight	LA-02-16	1	
17	Balance weight pole	LA-02-17	1	
18	Shaft core A	LA-02-18	1	
19	Shaft core B	LA-02-19	1	
20	Feed film roller	LA-02-20	4	
21	Feed film roller blocking	LA-02-21	8	
22	Puncher rail	LA-02-22	1	
23	Brush shaft core	LA-02-23	1	
24	Brush shaft inner sleeve	LA-02-24	1	
25	Puncher brush shaft blocking	LA-02-25	2	
26	Left adjust frame	LA-02-53A	1	
27	Brush stop ring	LA-02-27	2	
28	Puncher swing shaft	LA-02-28	4	
29	Support board base	LA-02-29	2	
30	Puncher body	LA-02-30	4	
31	Puncher cove	LA-02-31	4	
32	Puncher core shaft	LA-02-32	4	
33	Puncher pin shaft	LA-02-33	4	
35	Guide film shaft core A	LA-02-35	1	

(continued)

No.	Name	Code	QTY	Remark
36	Press film swing arm	LA-02-36	2	
37	Press film stop bar	LA-02-37	2	
38	Press film support pin	LA-02-38	2	
39	Press film shaft stop ring	LA-02-39	2	
40	Press film shaft core	LA-02-40	1	
41	Press film shaft limit sleeve	LA-02-41	2	
42	Press film roller	LA-02-42	1	
43	Left cover plate	LA-02-43	1	
44	Right cover plate	LA-02-44	1	
46	Transition belt wheel	LA-02-46	1	
48	Belt wheel	LA-02-48	2	
49	Support film roller body I	LA-02-49	1	
50	Adjust shaft	LA-02-50	1	
51	Guide film shaft core B	LA-02-51	1	
52	Separate film pole	LA-02-52	1	
53	Right adjust frame	LA-02-53	1	
54	Transition support frame body	LA-02-54	1	
55	Drive chain wheel	LA-02-55	1	06B-15A
56	Driven chain wheel	LA-02-56	1	06B-13A
57	Brush		1	
58	Tension fix handle	M12	1	
59	Rhombus bearing base	K001	2	
60	Rhombus bearing base	K003	4	
61	Bearing	6800-Z	14	
62	Bearing	16002-Z	2	
63	Bearing	6202-Z	4	
64	Bearing	6004-Z	2	
65	Bearing	6903-Z	2	
66	Toothed belt	MB360	2	
67	Motor		1	
68	Chain	06B	1	
69	Press film roller tension spring		2	
70	Puncher tension spring 1		8	
71	Touch switch		1	
72	Five stars handle B type	M8×30×62	4	

### 17.3 Front belt unit



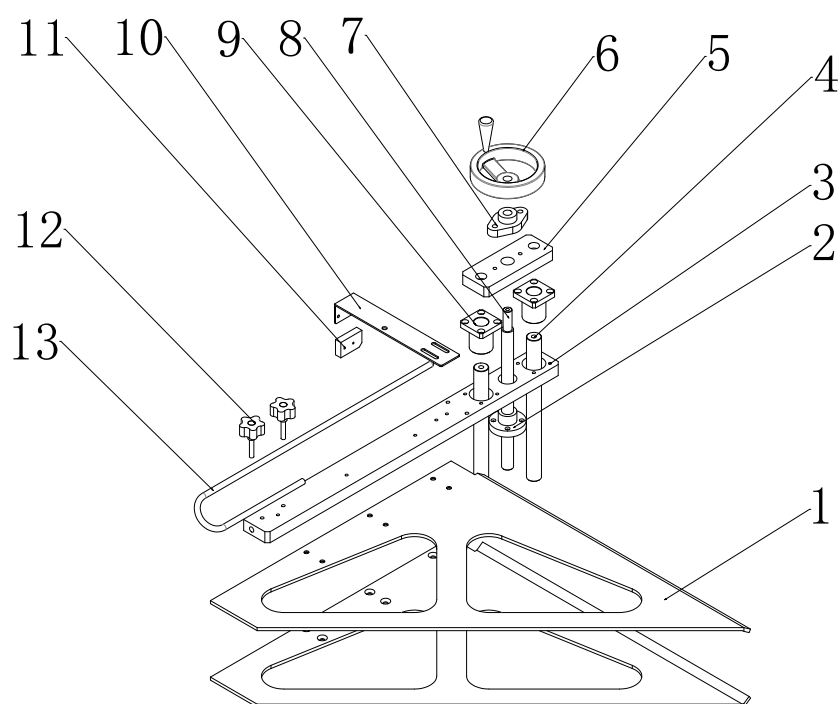
**Detailed Parts List**

No.	Name	Code	QTY	Remark
1	Support base	LA-03-01	4	
2	Linear bearing 25	LA-03-02	2	
3	Move slide frame	LA-03-03	4	
4	Feed film motor support frame	LA-03-04	1	
5	Button board	LA-03-05	1	

(continued)

No.	Name	Code	QTY	Remark
6	Drive shaft support frame	LA-03-06	1	
7	Inner drive shaft support frame	LA-03-07	1	
8	Front transport roller (rubber)	LA-03-08	1	
9	Front roller shaft core	LA-03-09	1	
10	Tension roller shaft core	LA-03-10	1	
11	Front roller	LA-03-11	2	
12	Face cover	LA-03-12	1	
13	Roller support frame	LA-03-13	1	
14	Support plate	LA-03-14	1	
15	Support beam	LA-03-15	1	
16	Move screw	LA-03-16	1	
17	T type nut	LA-03-17	1	
18	Front inner cover	LA-03-18	1	
19	Front out cover	LA-03-19	1	
20	Guide plate	LA-03-20	1	
21	Photocell support frame C	LA-03-21	2	
22	Front photocell frame	LA-03-22	1	
24	Photocell adjust nut	LA-03-24	2	
27	Front photocell support frame plate 3	LA-03-27	1	
35	Sealing plate	LA-03-35	1	
36	Move support body	LA-03-36	1	
38	Front transport drive chain wheel	LA-03-38	2	
39	Front transport driven chain wheel A	LA-03-39	1	
40	Location stop film block	LA-03-40	1	
41	Location stop film bar	LA-03-41	1	
43	Photocell mounting plate A	LA-03-43	2	
44	Endless belt	C2105×W375×δ0.8mm	1	
45	Motor		1	
46	Double width handle	D100X12	2	
47	Diamond bearing base	K001	1	
48	Diamond bearing base	K002	2	
49	Linear bearing base	SC25UU	4	
50	Bearing	61900-Z	4	
51	Correlation photocell		3	
52	Emergency stop switch		1	
53	Screw bolt M6		2	
54	Bearing connecting plate	LA-03-44	2	

## 17.4 Film spreading unit



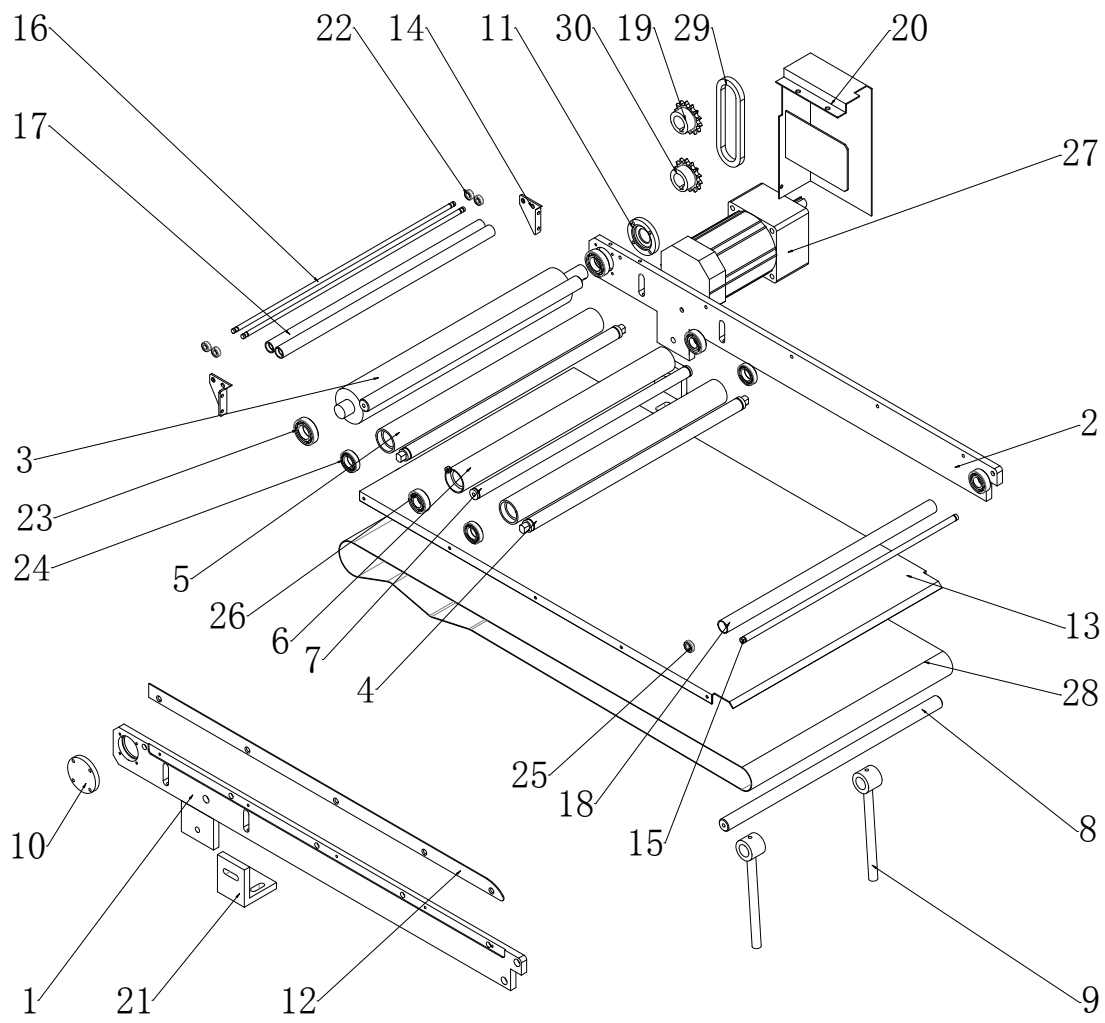
**Detailed Parts List**

No.	Name	Code	QTY	Remark
1	Guide triangle B	LA-04-05	2	
2	Adjust feed screw nut	LA-04-03	1	
3	Guide adjust board	LA-04-04	1	
4	Guide bar	LA-04-01	2	
5	Guide bar fix board	LA-04-02	1	
6	Double width hand wheel	D100X12	1	
7	Diamond bearing base	K001	1	
8	Adjust screw	LA-04-06	1	
9	Linear bearing	LMK20UU	2	
10	Photoelectric switch support frame	LA-04-08	1	
11	Correlation photoelectric		1	
12	Five stars handle B type	M6×25×20	2	
13	Guide bar 2	LA-04-07	1	

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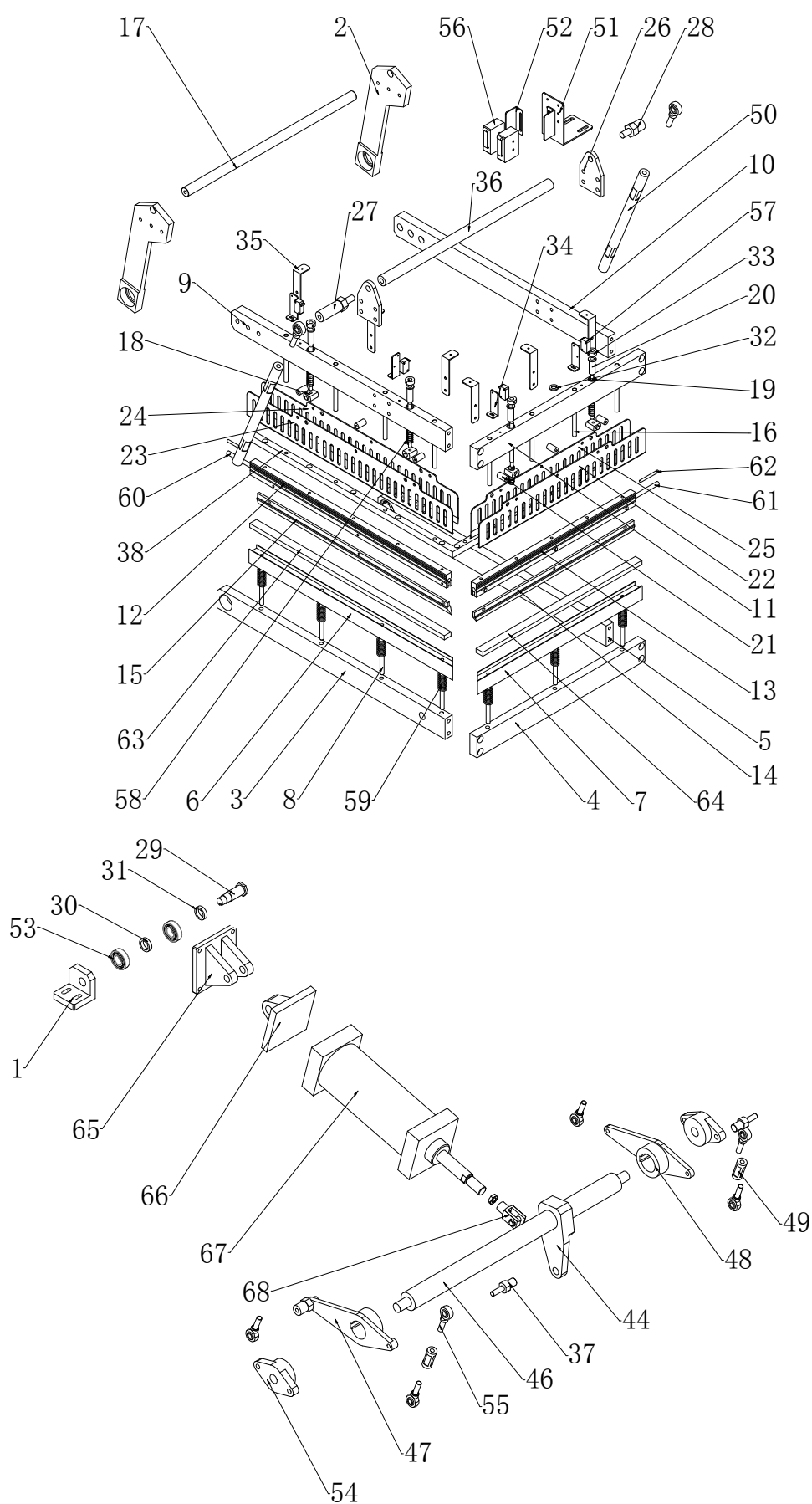
## 17.5 Back belt unit



### Detailed Parts List

No.	Name	Code	QTY	Remark
1	Back transport front frame body	LA-05-01	1	
2	Back transport back frame body	LA-05-02	1	
3	Drive roller shaft	LA-05-03	1	
4	Roller shaft I	LA-05-04	2	
5	Roller I	LA-05-05	2	
6	Roller II	LA-05-06	1	
7	Roller shaft II	LA-05-07	1	
8	Fix bar	LA-05-08	2	
9	Adjustable support bar	LA-05-09	2	
10	Bearing cover	LA-05-10	1	
11	Bearing cover A	LA-05-11	1	
12	Side stop board	LA-05-12	1	
13	Belt support board	LA-05-13	1	
14	Back transport auxiliary support	LA-05-14	1 for each, 2 in total	
15	Roller shaft core D	LA-05-15	1	
16	Back transport auxiliary roller shaft core	LA-05-16	2	
17	Back transport auxiliary roller	LA-05-17	2	
18	Roller C	LA-05-18	1	
19	Back transport driven chain wheel 06-14Z	LA-05-19	1	
20	Back transport chain wheel cover	LA-05-20	1	
21	Support feet	LA-05-21	2	
22	Bearing	628/6-Z	4	
23	Bearing	61904-Z	2	
24	Bearing	61903-Z	4	
25	Bearing	628/8-Z	2	
26	Bearing	6002-Z	2	
27	Back transport motor		1	
28	Back transport belt	C1590×W385×δ0.8mm	1	
29	Back transport chain		1	
30	Back transport drive chain wheel		1	

## 17.6 Cutter unit



### Detailed Parts List

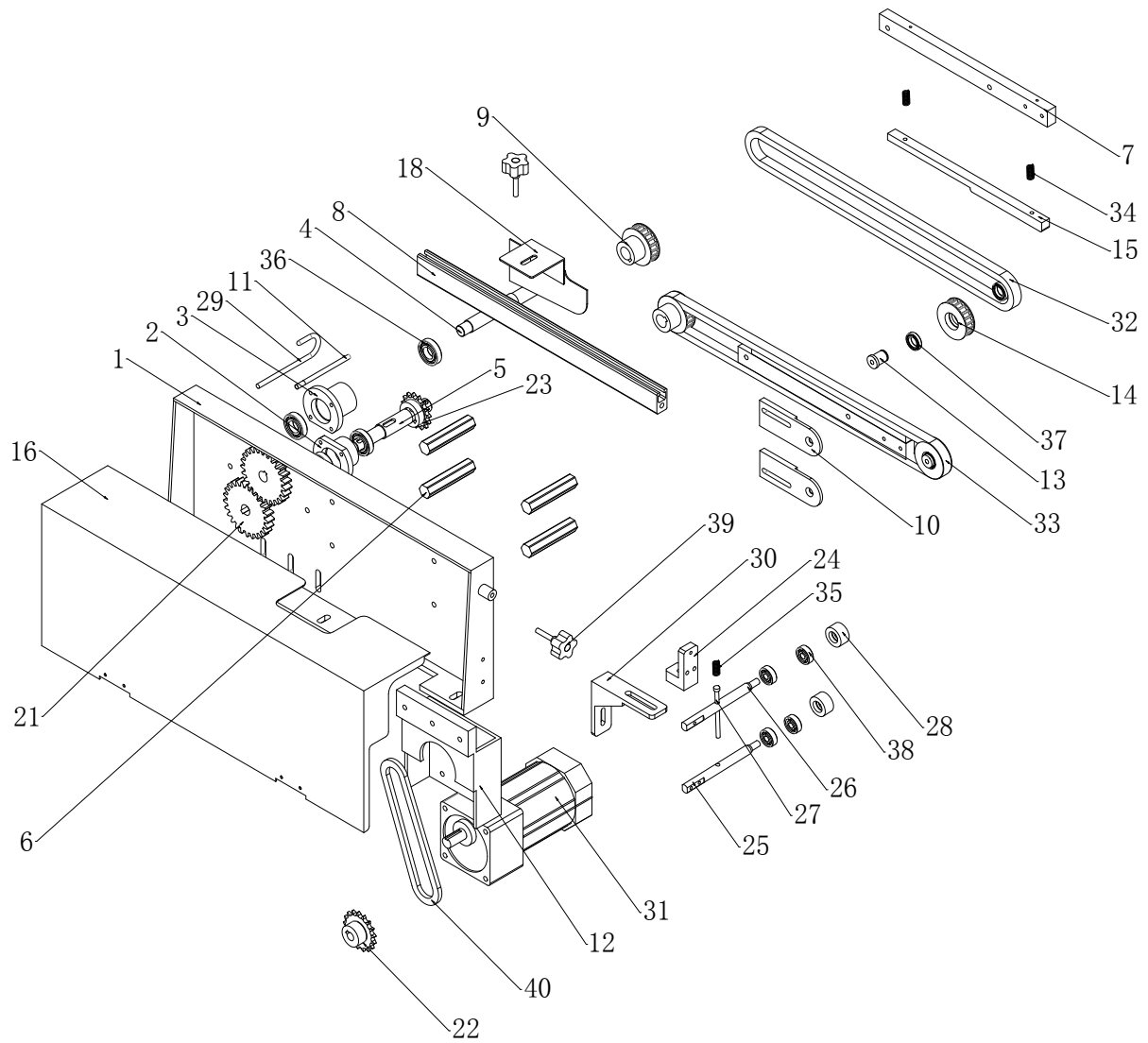
No.	Name	Mode no.	QTY	Remark
1	Base I	LA-06-01	2	
2	Support frame swing arm	LA-06-02	2	
3	Lower front inner seal cutter bridge	LA-06-03	1	
4	Lower inner seal cutter across bridge	LA-06-04	1	
5	Lower back inner seal cutter bridge	LA-06-05	1	
6	Vertical knife lower plate	LA-06-06	1	
7	Transverse knife lower plate	LA-06-07	1	
8	Lower knife seat screw	LA-06-08	7	
9	Upper front inner sealing cut beam	LA-06-09	1	
10	Upper rear inner sealing cut beam	LA-06-10	1	
11	Upper inner sealing beam	LA-06-11	1	
12	vertical blade seat	LA-06-13	1	
13	Horizontal blade seat	LA-06-14	1	
14	Horizontal sealing blade	LA-06-15	1	
15	Vertical blade	LA-06-16	1	
16	Upper screw of sealing blade	LA-06-17	8	
17	Upper cross shaft	LA-06-18	1	
18	Fender fixed block	LA-06-19	4	
19	Photoelectric align shaft	LA-06-20	4	
20	Sleeve	LA-06-21	4	
21	Fender fixed leg	LA-06-22	6	
22	Horizontal fender	LA-06-23	1	
23	Vertical fender	LA-06-24	1	
24	Vertical inner fender I	LA-06-25	1	
25	Horizontal fender 1	LA-06-26	1	
26	Bearing plate seat of vertical blade	LA-06-27	2	
27	Upper supporting axle pin LM	LA-06-28	1	
28	Upper supporting axle pin	LA-06-28-1	2	
29	Dead axle pin	LA-06-29	2	
30	Sleeve A	LA-06-30	2	
31	Sleeve B	LA-06-31	2	
32	Base plate	LA-06-32	10	
33	Counter point block	LA-06-33	8	
34	Photoelectric holder	LA-06-34	4	
35	Wire holder	LA-06-35	6	

(continued)

No.	Name	Code	QTY	Remark
36	Bearing connecting rod	LA-06-36	1	
37	Pin shaft	LA-06-37	2	
38	Sealing knife fix block	LA-06-38	1	
44	Swing arm	LA-06-44	1	
46	Shaft	LA-06-46	1	
47	Swing arm I	LA-06-47	1	
48	Swing arm II	LA-06-48	1	
49	Connect rod I	LA-06-49	2	
50	Connect rod II	LA-06-50	2	
51	Cutter protect support frame	LA-06-51	1	
52	Touch switch frame	LA-06-52	2	
53	Bearing	6004-Z	4	
54	Mounted bearing	UCFLU204	2	
55	Rod end Joint bearing	POS M10	8	
56	Touch switch Proximity switch		1	
57	Protect knife switch		4	
58	Cutter board press spring		4	
59	Lower knife base press spring		7	
60	Vertical knife heater tube	φ8.2×530,220V,1.0kW	1	
61	Transverse knife heater tube	φ8.2×440,220V,1.0kW	1	
62	Thermocouple	WRNT-01	2	
63	Vertical silica gel	19×10	1	
64	Transverse silica gel	19×10	1	
65	Cylinder base	SC63-CB	1	
66	Cylinder base	SC63-CA	1	
67	Cylinder	SC63×75-S	1	
68	Y connector	SC63-Y	1	

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## 17.7 Edge film pulling unit

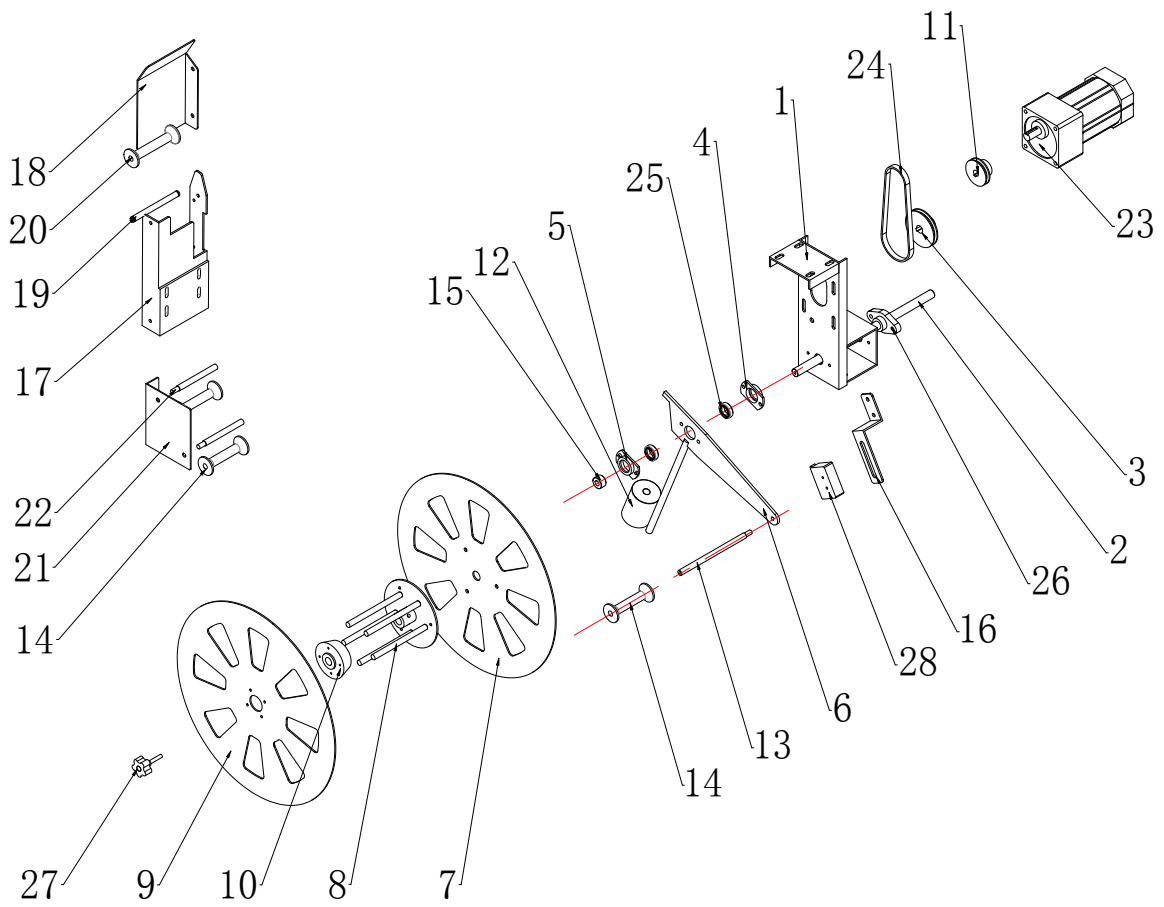


### Detailed Parts List

No.	Name	Code	QTY	Remark
1	Wall board	LA-07-01	1	
2	Bearing lower flange base	LA-07-02	1	
3	Bearing upper flange base	LA-07-03	1	
4	Driven shaft I	LA-07-04	1	
5	Drive shaft I	LA-07-05	1	
6	Upright	LA-07-06	4	
7	Upper transverse adjust press board	LA-07-07	1 for each, 2 in total	
8	Guide slot	LA-07-08	1	
9	Drive synchronizing wheel A	LA-07-09	2	
10	Support block A	LA-07-10	1 for each, 2 in total	
11	Separate film rod	LA-07-11	1	
12	Motor support frame	LA-07-12	1	
13	Pin shaft M	LA-07-13	2	
14	Driven synchronizing wheel B	LA-07-14	2	
15	Press bar	LA-07-15	2	
16	Outer cover	LA-07-16	1	
18	Separator board	LA-07-18	1	
21	Wheel gear A	LA-07-21	2	
22	Pull film drive chain wheel A	LA-07-22	1	
23	Pull film driven chain wheel C	LA-07-23	1	
24	Clip film guide wheel support base	LA-07-24	1	
25	Clip film lower shaft	LA-07-25	1	
26	Clip film upper shaft	LA-07-26	1	
27	Clip film pull press screw	LA-07-27	1	
28	Clip film guide wheel	LA-07-28	1	
29	Press film bar	LA-07-29	1	
30	Support frame 1-4	LA-07-30	1	
31	Motor		1	
32	Synchronization cog belt	8M, 1016 Long	1	
33	Synchronization cog belt	8M, 1080 Long	1	
34	Press film press spring		4	
35	Clip film wheel press spring		1	
36	Bearing	16003-Z	4	
37	Bearing	6802-Z	4	
38	Bearing	628/8	4	
39	Five stars handle, B type	M6×25×20	2	
40	Chain	06B	1	



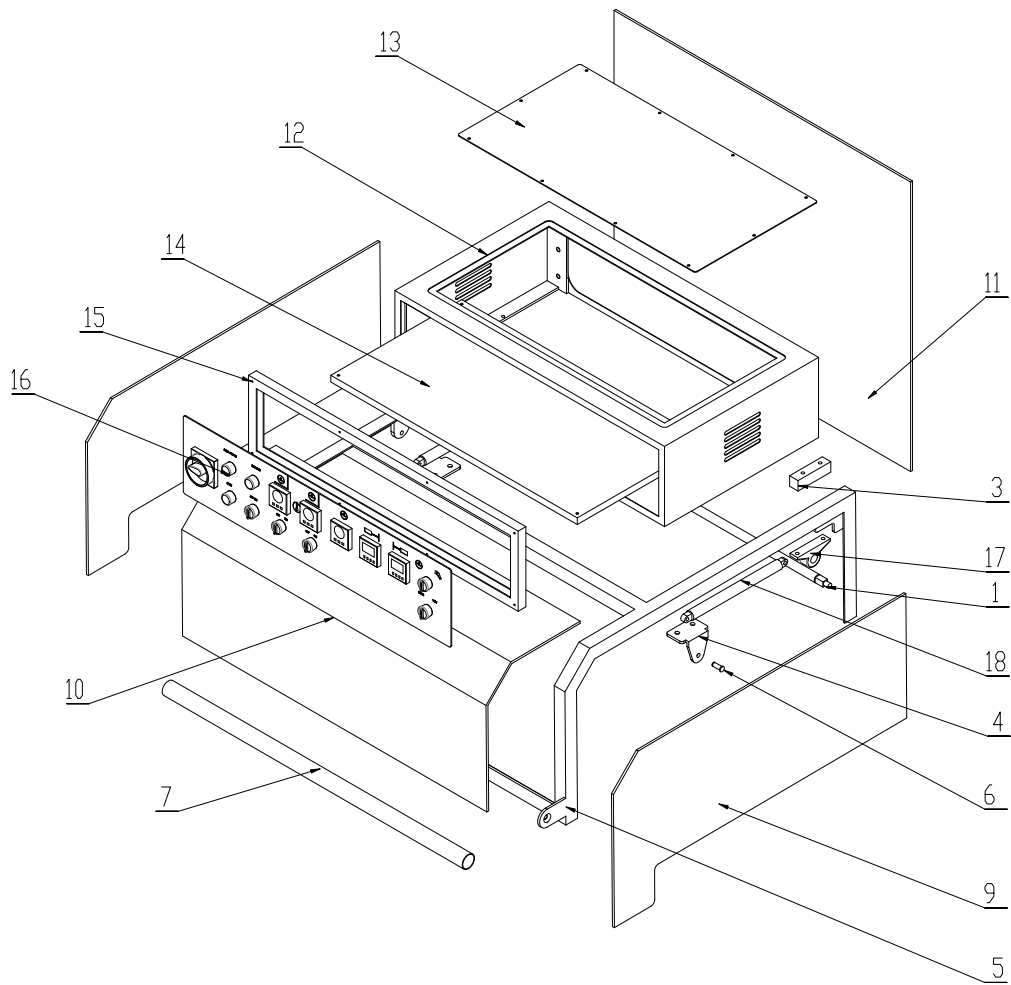
## 17.8 Waste film recycling unit



### Detailed Parts List

No.	Name	Code	QTY	Remark
1	Film recycling motor mounting frame	LA-08-01	1	
2	Feed film shaft core	LA-08-02	1	
3	Driven belt wheel	LA-08-03	1	
4	Bearing base A	LA-08-04	1	
5	Bearing base B	LA-08-05	1	
6	Feed film swing bar	LA-08-06	1	
7	Back material plate	LA-08-07	1	
8	Material plate connect board	LA-08-08	1	
9	Front material plate	LA-08-09	1	
10	Material plate connect block	LA-08-10	1	
11	Drive belt wheel	LA-08-11	1	
12	Feed film configuration block	LA-08-12	1	
13	Roller shaft III	LA-08-13	1	
14	Roller wheel	LA-08-14	3	
15	Feed film locating sleeve	LA-08-15	1	
16	Feed film photocell mounting board	LA-08-16	1	
17	Back feed film roller support frame	LA-08-17	1	
18	Back feed film roller cover plate	LA-08-18	1	
19	Pass film wheel shaft	LA-08-19	2	
20	Pass film roller A	LA-08-20	2	
21	Idler wheel mounting frame	LA-08-21	1	
22	Idler wheel shaft A	LA-08-22	2	
23	Motor		1	
24	Toothed belt	MB480	1	
25	Bearing	6902-Z	2	
26	Diamond bearing base	K002	2	
27	Five stars handle, B type	M6×25 ×20	1	
28	Touch switch		1	

## 17.9 Protective cover



### Detailed Parts List

No.	Name	Code	QTY
1	Turn shaft	LA-09-01	1
3	Right upper air spring base	LA-09-03	1
4	Air spring support frame 1	LA-09-04	2
5	Glass cover frame	LA-09-05	1
6	Turn pin	LA-09-06	2
7	Handle	LA-09-07	2
9	Left side protect cover	LA-09-09	2
10	Front protect cover	LA-09-10	1
11	Back glass cover	LA-09-11	1
12	Electricity box	LA-09-12	1
13	Electricity box upper cover	LA-09-13	1
14	Electricity mounting plate	LA-09-14	1
15	Electricity box door frame	LA-09-15	1
16	Electricity panel	LA-09-16	1
17	Mounted bearing	UCP003	2
18	Air spring	280-100	2

## PART 18. SCHEMATIC CIRCUIT DIAGRAM

