

# JEMA

AUTO CUTTING MACHINE

**使用说明书**

INSTRUCTION MANUAL



**STRIMA®**  
Technika Szycia od 1991

Telefon: +48 61 8 950 950

Fax: +48 61 8 950 951

E-mail: [mail@strima.com](mailto:mail@strima.com)

## I. Brief Introduction

The multi-function auto-cutting machine is a new special integrating pneumatic, mechanical and electrical controls, which can control the mechanical and cylinder actions automatically through the computer program and automatically cut off the belt-shaped objects such as woven belt, plastic hose, shoe lace, trademark at different widths, lengths and angles according to the length and quantity required. The precision of your products will be higher thanks to the compensation function designed according to the elasticity of the materials to be cut. Options: (the infrared positioning device: the trademarks of different widths can be cut off accurately through positioning by the infrared sensor system). With the function of automatic stopping when there is no material and the features of cutting of thick materials, high precision, high cutting speed, flat cut surface free of burr, cutting of nylon materials without loose yarns, simple operation, etc, this machine is the first choice to help you to increase production efficiency, improve product quality and save labor cost.

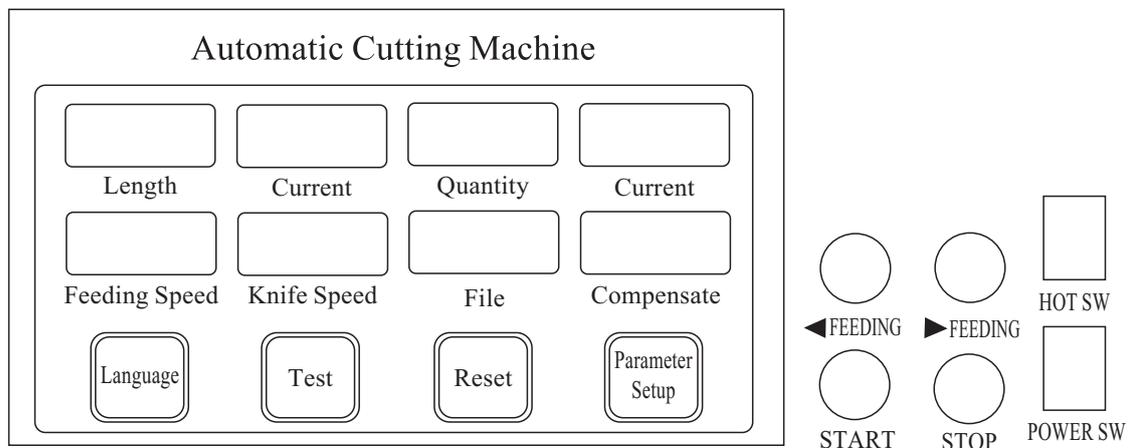
## II. Specification

Model	Cutting Length (mm)	Cutting Speed (p/min)	Max. Cutting Width (mm)	Max. Blade Temp (°C)	Recommended Pressure (Mpa)	Voltage (v)
120HX	20-99999	120	35 / 55	420	0.3-0.4	110/220
120H	20-99999	120	100	420	0.3-0.4	110/220
120LR	10-99999	120	95	350	0.3-0.4	110/220
120L	10-99999	110	105	-	0.3-0.4	110/220
120R	20-99999	80	10-50	-	0.3-0.4	110/220

## III. Service Environment

This Machine works at room temperature, and its performance will be influenced if the temperature is too high (higher than 50 °C)

## IV. Introduction of Panel Functions



HOT SW       POWER SW

Press this key to feed the materials forward manually

Press this key to return the materials backward manually

Press this key and the machine will start to work       Press this key and the machine will stop working

Press down this button, the upper pressing wheel will be lifted up to manually place the material. Release the switch and the upper pressing wheel will be put down.

Press this key to set the length.

Display current length, press this key and the current length will be reset to be zero.

Press this key to set the quantity.

Display current quantity, press this key and the current quantity will be reset to be zero.

Press the key, input the number, the larger the number, the faster the speed, the smaller the number, the slower the speed.

Press the key, input the number, the smaller the number, the faster the speed, the larger the number, the slower the speed.

Press this key to select the stored file.

Due to the different elasticity of various materials, when the cut length is longer or shorter than the actual input length, use this key to appropriate compensation to achieve the size you need.

Press this key to select language.

Press this key to cut once manually.

Press this key when the system has no error, and the current data will be recovered to be zero. (Note: the rotating knife will be recovered to be straight knife)

Press this key to enter other function settings.

<input type="button" value="ON"/>	<input type="button" value="0"/>	<input type="button" value="0"/>
Sensor	The Distance Between The Color Code	Length of Waste Material
<input type="button" value="Shape"/>	<input type="button" value="Cutting Times"/>	<input type="button" value="Enter"/>

Quantity of holes <input type="text"/>	Continuous punching functions <input type="button" value="OFF"/>																								
<table border="1"> <thead> <tr> <th>Hole Number</th> <th>Distance Between Holes</th> </tr> </thead> <tbody> <tr><td>NO.1</td><td></td></tr> <tr><td>NO.2</td><td></td></tr> <tr><td>NO.3</td><td></td></tr> <tr><td>NO.4</td><td></td></tr> <tr><td>NO.5</td><td></td></tr> </tbody> </table>	Hole Number	Distance Between Holes	NO.1		NO.2		NO.3		NO.4		NO.5		<table border="1"> <thead> <tr> <th>Hole Number</th> <th>Distance Between Holes</th> </tr> </thead> <tbody> <tr><td>NO.6</td><td></td></tr> <tr><td>NO.7</td><td></td></tr> <tr><td>NO.8</td><td></td></tr> <tr><td>NO.9</td><td></td></tr> <tr><td>NO.10</td><td></td></tr> </tbody> </table>	Hole Number	Distance Between Holes	NO.6		NO.7		NO.8		NO.9		NO.10	
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-  Press this key when cutting off the trademark, and the infrared position sensor will be opened.
-  It means the length of the waste, directly input "0" if there is no waste.
-  Press this key to input the length of the waste.
-  Press this key to select the required shape.
-  Press this key to modify the system settings (to be used by manufacturer or professionals).
-  Press the key to confirm the inputted data.
-  Press the key to set the angle.
-  Press the key to set the angle.

## V. How To Operate

### 1. Machine type: Straight knife

1. Set the length and quantity (for example: set the length to be 100mm and the quantity to be 50pcs)  
Turn on the power switch, and the display window of the panel will display the computer interface.  
Press  Length key, input 100, then press enter key, and the length setting is finished.  
Press  Quantity key, input 50, then press enter key, and the quantity setting is finished.

### Machine type: Rotating angle

1. Set the length and quantity (for example: set the length to be 100mm and the quantity to be 50pcs)  
Turn on the power switch, and the display window of the panel will display the computer interface.  
Press  Length key, input 100, then press enter key, and the length setting is finished.  
Press  Quantity key, input 50, then press enter key, and the quantity setting is finished.
2. Press  shape key to select the required shape.  
Select the pattern , press  key, then press  Length key, input the length, and press  Quantity key to input the quantity.  
Select the pattern , press  key, then press  Angle+ key, input 70 (Note: input the degree according to the required angle), and then press Enter key.  
Select the pattern , press  key, then press  Angle- key, input 70 (Note: input the degree according to the required angle), and then press Enter key.  
Select the pattern , press  to input the exact width of the material, press  key and  Angle+ key, input 70, then press Enter key and  Angle- key, input 70 (Note: input the degree according to the required angle), and then press Enter key.  
Select the pattern , press  to input the exact width of the material, press  key and  Angle+ key, input 45, then press Enter key and  Angle- key, input 45 (Note: input the degree according to the required angle), and then press Enter key.  
Press  Start key and the machine will finish cutting according to the above setting automatically.
3. Spacing of color code: The spacing of color code means the distance of the space segment of the "waste" between two segments of trademarks; It's not needed to input the length spacing of Color Code when there is no space segment of "waste", for example:   
Press the waste length key of Spacing of Color Code, input 10 and then press Enter key.  
Press  Start key and the machine will finish cutting according to the above setting automatically.

## VI. How To Use the Color Sensor (Option)

- (1) Press this key Sensor to turn on the infrared positioning sensor.
- (2) Locate label's cutting line and upper knife precisely(Fig. 1);



Fig.1

- (3) Measure the length of the label and enter the value;
- (4) Move the cursor to the positioning point of the trademark (the best color is easy to distinguish), and click the "color mark setting button", as shown in Figure 2;
- (5) Then move the cursor to the blank (as shown in Figure 3), press the "color code setting button", and finally move the cursor to the positioning point (as shown in Figure 2), then fix the screws.



fig.2



fig.3

9. Press the "RESET" button to restore the system, then press "START" to working.

### Troubles in cutting

- Check if you adjust sensor after cutting line of label on the knife blade.
- Move the sensor forwards and backwards.
- Check sensitivity & height of the sensor.
- Check the cut speed (normal 50%).

### Caution:

After setting the sensor, do not press DELAY, L/D button, it may happen an error changing input data.

## VII. How To Adjust the Balance of the Knife and Cutting Knife Platform

1. First turn off the power supply.
2. Adjust the air pressure on the pressure regulating valve to be zero air pressure.
3. Loosen the cylinder shaft nut on the top of cylinder with 32MM wrench.
4. Press the top knife to the lowest position to make the top knife contact the cutting knife platform.
5. Adjust the platform to be in balance with eight screws on the support plate of the platform to ensure no gap no matter the top knife rotates at whatever angle (pull down the four lower screws and lift up the four higher screws) and then fasten the nuts.
6. Fasten the nuts on cylinder shaft with 32MM wrench (note: usually 0.1MM gap is recommended between the top knife and cutting knife platform according to the material thickness.)

### VIII. Precautions

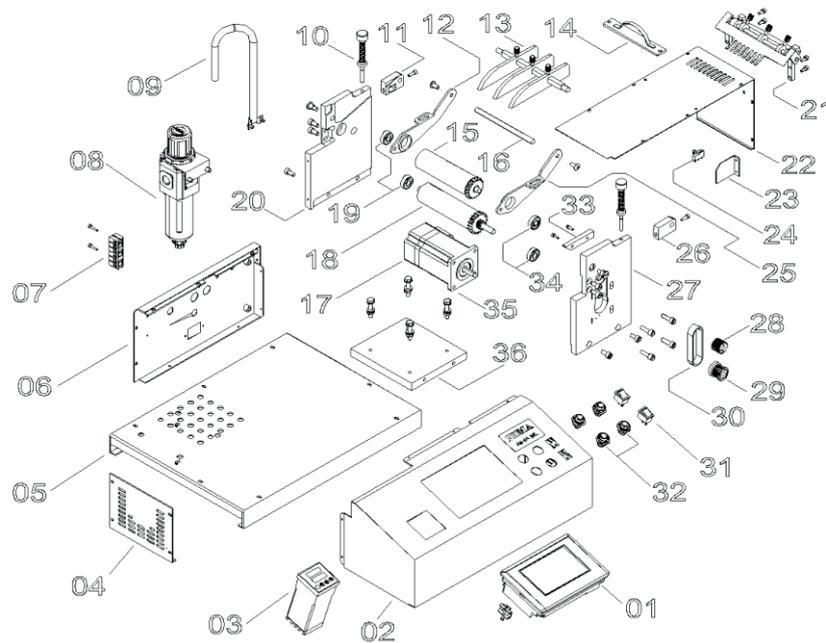
1. Please confirm the power voltage and connection of ground wire before use. (Note: the ground wire must be grounded)
2. Please don't put your hand or any object close to the cutting knife edge during operation of the machine for the safety.
3. Be sure to cut off the power source and air source before any adjustment for the safety.
4. Please don't dismantle any components unless in normal maintenance.
5. Please fill oil timely when there is no oil on the guide rail of cutting knife base to keep the sliding sleeve lubricated. (Fill the engine oil for automobiles rather than the white oil of sewing machine.)
6. Sharpen the knife with the special grinding machine if the knife is blunt after used for a period of time ( note: such work must be performed by professionals).
7. In case of any difficulty in the operation, please contact our company and we will serve you wholeheartedly.

### IX. Measures for Removal of Common Faults (for reference)

NO.	Troubles		Applicable Model	Causes & Measures
1	No power supply		All models	1.Check if electric cord is connected well; 2.Check if the fuse blows out or not;
2	There is power, but the machine fails to be started and the sensor has an error and the sensor has an error	The sliding sleeve of cutting knife base is stuck or there is no air pressure	All models	1.Check if the air cylinder is connected to the air and if not, please open the valve; 2.Check if the sliding sleeve of cutting knife base is stuck, and inject the lubricating oil on the sliding sleeve;
		Alarm of no material		1.Check if the materials are used up, and please replace with new material when needed; 2.Check if there is material or if the pressing plate drops into the slot 3.If all is confirmed normal, check if the travel switch is stuck and doesn't bounce back.
		There is punching error		Check if there is air pressure or if the punching holder is stuck.
		The panel has no display		Check if the temperature is too high with over-time working, switch off the machine for seconds, if still doesn't after several times' trying. Please opening the cover and check the connection. (Especially between operation and CPU board)
3	Fail to cut off the belt		All models	1.Check if the air pressure reaches the required value, and if not, please increase the air pressure. 2.Check if the blade of heat contacts the platform, the blade should be sharp. 3.The blade of heat knife should be heating and the blade of heat knife should be heating and the knife edge should contact the platform
4	Only on side of the belt is cut off		Hot cutter	Check if the air pressure reaches the required value, and if not, please increase the air pressure. Check if the blade is sharp, if the blade of heat knife is heating and if the blade of heat knife contacts the platform. The blade should be sharp, the blade of heat knife should be heating and the knife edge should contact the platform.
5	The cutting length is different from the set value		All models	Loosen the roller or use the belt transmitter to feed the materials. Enable the compensation function.
6	The cutting length is not uniform		All models	1.Slow down the deeding; 2.Loosen the baffle plate; 3.Use the belt transmitter to feed the materials when necessary.
7	The trademark is cut off before reaching the cutting line		Color code	Move the sensor in the direction of the knife edge till the distance of the difference gap. The trademark printing is not standard. The trademark of standard printing is recommended.

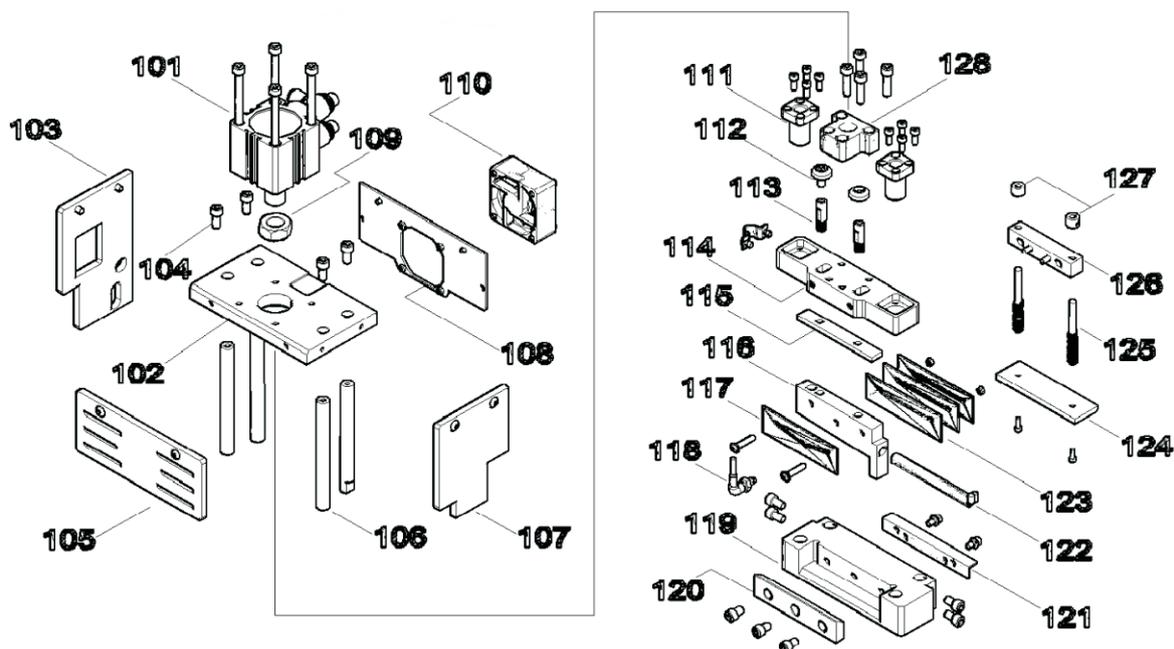
NO.	Troubles	Applicable Model	Causes & Measures
8	The trademark is cut off after exceeding the cutting line	Color code	Move the sensor in the opposite direction of the knife edge till the distance of the difference gap. The trademark printing is not standard. The trademark of standard printing is recommended.
9	The color code sensor has an error	Color code	Press down the pop-up window, align the knife edge with the cutting line, press "RESET" key and then press "START" key.
10	No material supply	All models	Replace new materials.
11	The reset sensor of rotating knife has an error	Rotating angle	Press "RESET" key to reset.
12	There is current when touching the equipment	All models	When installing the equipment, the user must equip the anti electric shock leakage switch by himself, and the grounding electrode of the three pin socket must have a good grounding wire to ensure the normal operation of the machine. Note: please do not open the door of the case during operation to avoid interrupting the normal cutting work. This machine has the function of automatic power-off when opening the door.

## Parts Drawing



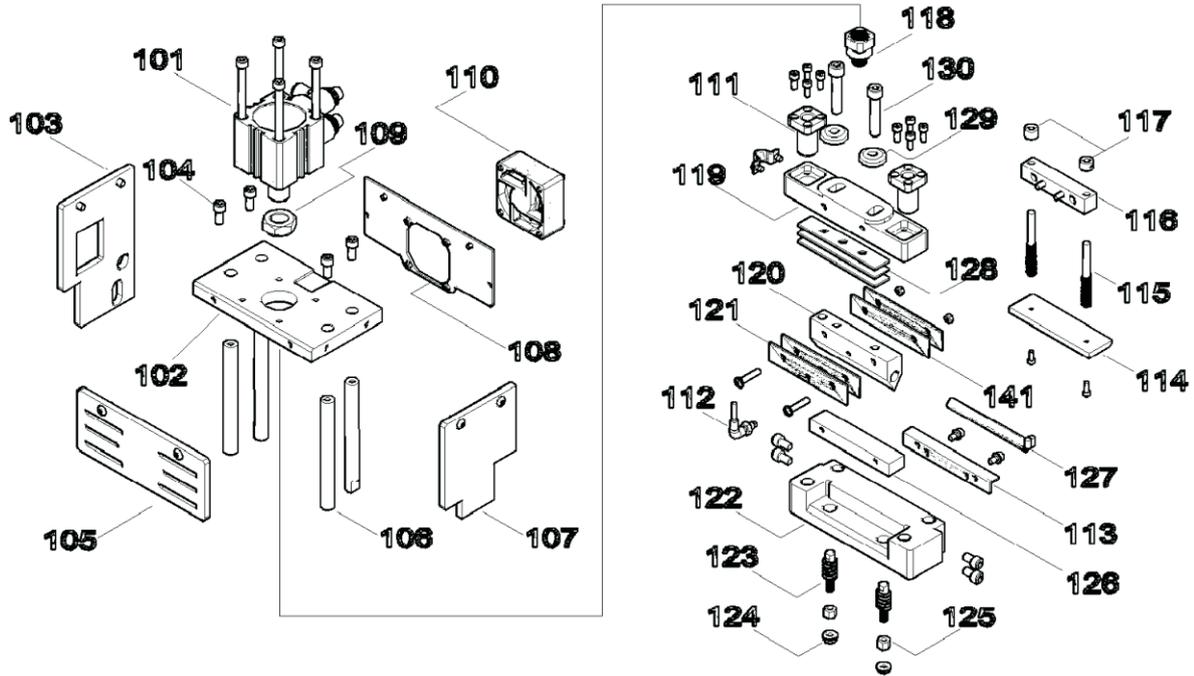
No.	Name	No.	Name
1	Touch panel	19	Bearing(608Z)
2	Control cover	20	Left roller bracket
3	Temperature controller	21	Rear guide-pin bracket
4	Left side cover	22	Upper guide plate
5	Bottom plate	23	Plate-nut
6	Back cover	24	Micro limit switch
7	Terminal	25	Upper roller seat(Right)
8	Regulator	26	Retaining plate fixing seat(Right)
9	Spring	27	Right roller bracket
10	Pressure-control bolt	28	Synchronizing gear
11	Fixed seat	29	Synchronizing gear
12	Upper roller seat(Left)	30	Timing belt
13	Upper roller bracket	31	Power key
14	Pressing plate	32	Key
15	Upper roller	33	Baffle block
16	Drawing shaft	34	Bearing(608Z)
17	Feeding motor	35	Screw
18	Lower roller	36	Feeding motor base

## (Cold & Hot) Parts Drawing



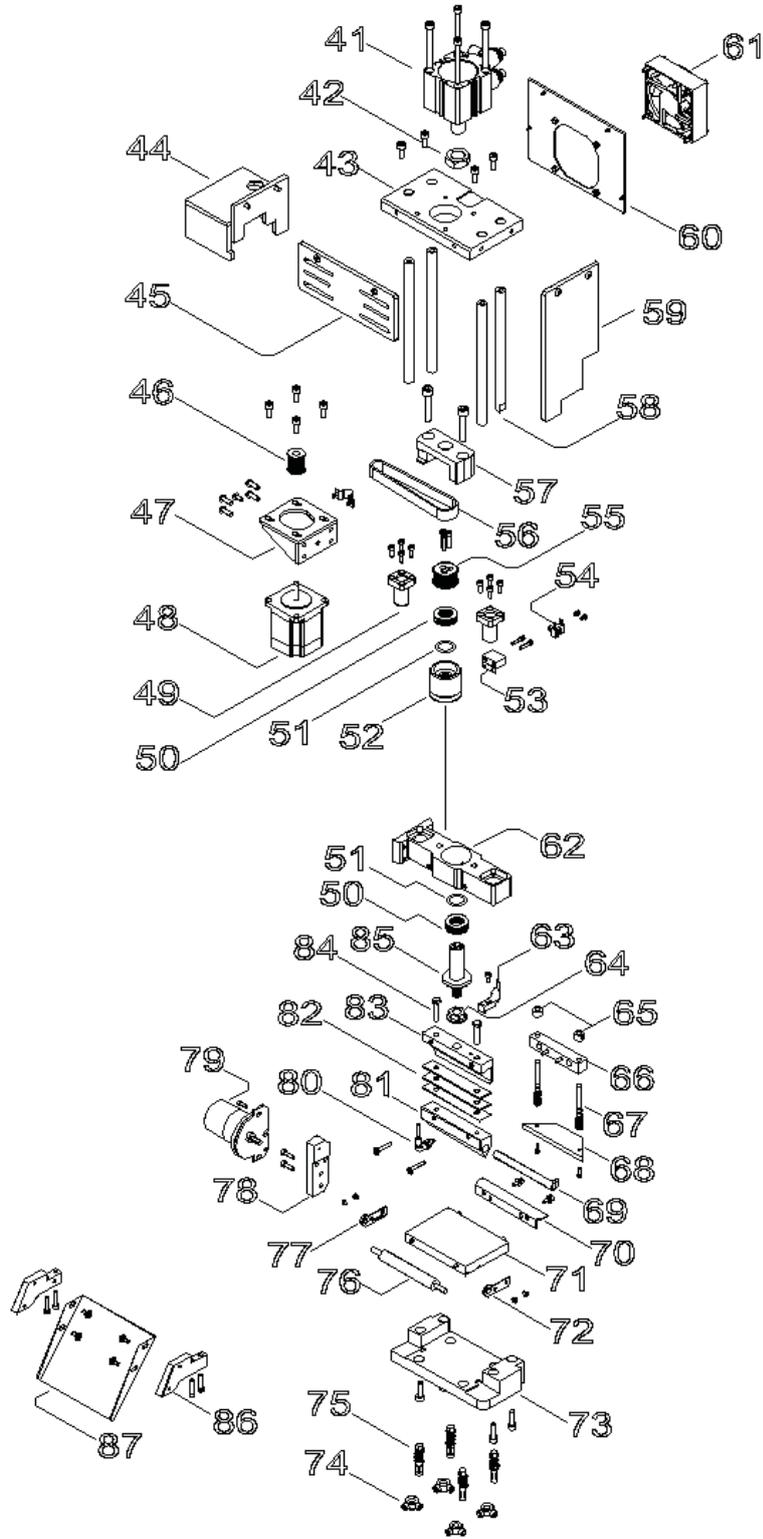
No.	Name	No.	Name
101	cutter cylinder	115	upper insulation board
102	cutter cylinder pallet	116	upper knife
103	left guard plate	117	insulation board
104	nut bolt	118	thermocouple
105	front guard plate	119	bottom knife platform
106	fixed shaft	120	lower knife
107	right guard plate	121	bottom knife platform
108	fan rack	122	Heating tube
109	nut	123	insulation board
110	fan	124	pressure plate
111	axle sleeve	125	pressure plate shaft
112	M6 nut bolt	126	pressure plate rack
113	upper knife nut bolt	127	retaining ring
114	knife rack	128	upper coverplate of tool holder

## ( Hot ) Parts Drawing



No.	Name	No.	Name
101	cutter motor	116	pressure plate rack
102	cutter cylinder pallet	117	retaining ring
103	left guard plate	118	connecting shaft
104	nut bolt	119	upper knife rack
105	front guard plate	120	upper heating knife
106	fixed shaft	121	insulation board
107	right guard plate	122	bottom knife platform
108	fan rack	123	lower heating knife shaft and spring
109	nut	124	fixed ring
110	fan rack	125	nut
111	axle sleeve	126	lower heating knife
112	thermocouple	127	Heating tube
113	bottom knife platform	128	upper insulation board
114	pressure plate	129	shim
115	pressure plate shaft	130	upper knife fixing screw

# (Rotating Angle) Parts Drawing



## SPARE PARTS

No.	Name	No.	Name
41	cutter cylinder	66	pressure plate rack
42	cylinder nut	67	pressure plate shaft
43	cutter cylinder pallet	68	pressure plate
44	motor cover	69	Heating tube
45	front guard plate	70	feeding pad
46	turing knife pinion	71	bottom knife plate
47	turing knife motor farne	72	roller bracket
48	turing knife motor	73	bottom knife platform
49	axle sleeve	74	nut
50	plane bearing	75	lower knife adjusting rod and spring
51	corrugated gasket	76	roller
52	axle sleeve	77	roller bracket
53	sensor rack	78	dc motor frame
54	turing knife rack	79	dc motor
55	turing knife big gear	80	thermocouple
56	turing knife timing belt	81	upper knife
57	turing knife upper coverplate of tool holder	82	insulation board
58	fixed shaft	83	turing knife holder
59	right guard plate	84	nut bolt
60	fan rack	85	turing knife bracket shaft
61	6*6Fan	86	slip plate bracket
62	turing knife rack	87	slip plate
63	turing knife sensor guard		
64	nut		
65	retaining ring		