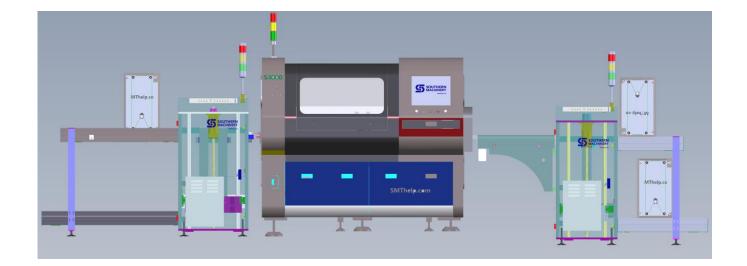


# S4000 Axial Insertion Machine

# **User's Manual**





# **Machine Overview:**

S4000 series machine is high speed, high precision and high performance equipment, it is a new generation of horizontal joint machine developed and produced by our company, which integrates the essence of our sequential arrangement machine and horizontal insertion machine into one machine, it can arrange different kinds of braided components (carbon film resistors, diodes, cylindrical capacitors and other components) on the chain clips in sequence according to the set program for the plug-in head. This equipment is to fix the plug-in head partly horizontally without moving, by the movement of X and Y mechanism, to realize the precision plug-in in each area of PCB board, and the angle of plug-in is realized by the rotation of turntable. The series control software and operation software are also developed by our company independently, and all operations are controlled by one computer.

This series of vertical machine has the following major advantages.

 $\triangle$  Full computer control, full Chinese version operating system, based on Windows platform, easy to operate, fast, simple and easy to learn.

 $\triangle$  Adopt machine vision technology, online automatic programming, automatic correction of deflection, automatic identification of MARK point, improve the degree of automation.

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 $\triangle$  Adopt AC servo system, optimize the line, eliminate the instability caused by the line

fault, realize the stable and high speed.

The goal is to save energy.

 $\triangle$  The table can be rotated in clockwise and counterclockwise directions.

# Software operation

# **1**、 Safety check before operation.

Please must pay attention to: when the machine is newly installed or long-term idle state,

to the machine power and ventilation and operation before, must carefully do the following safety checks.

1) Check whether the power supply is the specified rated voltage.

2) Check whether the main power supply is connected to the machine, whether the insurance is intact, and whether the branch circuit breaker is closed.

3) Make sure the equipment is grounded properly.

4) Make sure no irrelevant objects are left in the electric control box and on the movable parts of the machine.

5) Make sure that the conveyor belt and timing belt are not dislodged during



transportation.

6) Check whether the heavy load and high speed running mechanism such as screw, slide

rail and plug-in axis are well connected.

- 7) Push and pull the X, Y, H, W, L, J mechanism by hand to see if the activity is smooth.
- 8) Check whether the limit detection and limit mechanism is dislocated.
- 9) Check whether the emergency switch is pressed down, check whether the total air
- source and power switch are in OFF state.
- 10) Check whether the computer, the electric control box, the main and secondary machines are well plugged in between each wiring plug and air pipe.

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# $2_{n}$ Operation interface description, divided into the following three zones.

gram File Create/Modify Plug	g-in Data I/O Dia	gnosis Motor D	Diagnosis Manufacturers Info Help Back-stage Info Language Shift Exit	
Operate Start Resu Aralm Reset	et Elugrin Models	74)	SOUTHERN To provide professional solutions of Al/SMT and SMT peripheral end	equipme.
Circle Full Step-by-St		nce Inversions	Information of the machine state	
	<u> </u>	1	Cannot find the cards of motion control!	
Mark-point Check Check Uncheck	State of Chain Run	Not Run	Information of Production Modify	
Check Uncheck		Not Run	Modify	
Check Uncheck	Run Ú	Not Run	Modify Program name: Counter of default 1000	
Check Uncheck	Run Material End	Not Run	Modify Program name: Counter of default 1000 PPM: Counter of complete	per

3,

# Figure 1

1) Production operation zone: This zone is for operation control of machine operation and production (as shown above).

Buttons and selections are explained.

Start: Start the plug-in program, the machine ministries cooperate to complete the plug-in task.

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Stop: The machine stops working and enters standby mode.

Return to zero: Return the table and turntable to the starting zero position. Is the first

shift and plug-in before the necessary movement.

Alarm reset: When the machine encounters plug-in error during production, it will stop

working and display the error information in the stop message, when the information is

repaired, you can click the alarm reset and then start to continue production.

#### Production operation mode.

- 1. Continuous: i.e. execute the action continuously and complete the production quantity straight.
- 2. Single-step: i.e. complete a complete plug-in cycle action.
- 3. Step-by-step: The plug-in action is decomposed into several steps to execute, and only one step is completed for each start.

#### Empty run mode.

- 1. Normal plug-in: completes the plug-in according to the normal plug-in action.
- 2. Sequential idle run: move the table idle plug according to the program sequence, the chain does not move.
- 3. Reverse order idle run: move the table idle plug according to the program reverse order, the chain does not move.

# Plug-in status detection.

1. Detection: During the insertion process, the insertion of components is detected in real time, and if bad insertion is found, the alarm is stopped.

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2. Non-detection: During the insertion process, the insertion of components is not detected.

#### Material feeding status detection.

- 1. Detection: During the feeding process of material station, detect the presence or absence of material on the material station, if no material is detected three times in a row, stop and alarm.
- 2. Non-detection: During the feeding process of the material station, the condition on the material station is not detected.

#### MARK point

- 1. Execute: If there is MARK point correction command in the plug-in sequence command, MARK point correction will be executed.
- 2. No execution: MARK point correction command is not executed.

#### Chain operation status

- 1. Running: The chain feeds the insert in the program sequence.
- 2. Not running: The chain does not feed the insert in the program sequence.

#### End of feeding

Stop after finishing the insert of the whole set of materials on the current chain.

#### Table moving speed

The speed of manually moving the table.

#### **Operation speed**

Adjust the speed of each axis during inserting.



Operate	
Start Res	Stop
Froduction Models	E-Stop Plug-in Models
Circle Full Step-by-S	Ster <mark>Normal</mark> Sequence Inversions
1 I I I I I I I I I I I I I I I I I I I	
Plug-in Check	Material preparation Check
Check Uncheck	Check Uncheck
Mark-point Check Check Uncheck	State of Chain Run Not Run
· · · · · · · · · · · · · · · · · · ·	
Workdesk Speed(Manual)	Material End Workdesk lamp
Producting Speed	
Slow Speed 🛛 🕅	edium Speed High Speed
	90



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Figure 2

2) Plug-in order list

Displaying Company Log when no plug-in data is read.

displaying the plug-in data when it is available.

displaying CCD image when MARK point correction is encountered during production.

3) Operation information area

This area displays the current production information.

Information of the machine state						
Cannot find the cards of motion control!						
Information of Productio	n	Modify				
Program name:		Counter of default 1000				
PPM:		Counter of complete				
Real speed:		Average speed:				
	Shear horn	Left 🞻 Right 🖋 Feed jumper				
	S-4000 v	ver2.40.2.615-80-EN				



#### **Stoppage information**

Shows what the production process is stopped for. It may be an alarm message, or it may

be that the scheduled production task has been completed.

#### Program name

Shows the name of the program that is about to run or has run. It changes with the

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"open" of different programs.

The name of the program is displayed.

#### **Production Set Quantity**

This is the number of PCBs to be inserted in production. It will stop automatically when

the quantity value is reached.

#### PPM statistics

Plug-in success rate calculation: (number of successfully inserted components/total

number of already plugged-in)\*100%.

# Production completion quantity

Production records will be automatically accumulated for each component a board is

inserted.

#### Real-time speed

Used to show the actual speed of the machine inserting. Unit: pcs/hr.

#### Average speed

The insertion speed of the machine in a certain period of time.

# Shear head sensing status

"Left" "Right" is red flashing to indicate normal insertion of the plug-in, and gray to indicate no insertion or insertion error.

#### Send jumper

Used to drive the jumper spindle to run the jumper when testing the jumper.

# Modify the number of sets



Modify the preset number of inserts, and stop the production automatically when the

preset value is reached.

#### 3. Toolbar Description

reat IST-480	00-40						
文件程式	制作及修改程式	I/O信号诊断	马达调试	厂家信息	帮助信息	后台管理	退出
							Figure 4

#### 1) File Program

#### Import Program



Figure 5

Click File Programs → Import Programs and it will bring up a dialog box that shows all the

file names.

Then click on the name of the program you want to "open" and click "Open", the machine accepts the "task" that will execute the program and overwrites the previous program.



咖 打开		<b>—</b> ×-
查找范围(I):	▶ 我的文档 🔹	G 🤌 🖽 <b>-</b>
名称	*	修改日期
🕙 222.xls		2020/5/16 15:4:
🖭 mm.xls		2020/7/8 14:58
OutHouse.>	xls	2020/6/19 14:4:
•		Þ
文件名(M):		打开(0)
文件类型(T): [	插件机数据(*.xls) *.xls	▼ 取消 

Figure 6

#### Exporting a program

Click File Programs → Import Programs, it will pop up a dialog box for choosing a file name (Figure 7 below), you can also enter your desired file name in the file name field and click "Save".

**** 另存为		×
保存在(I):	퉬 IST-4800	- 🥝 🤌 🛄 -
名称	*	修改日期
🌗 统计记录		2020/7/13 13:46
一 一 一 一 件 信 息 。	ds	2017/12/26 14:21
4		•
文件名(07):		
		保存 (S)
保存类型(T):	插件机数据(*. xls)  *. xls	▼

Figure 7

# Modify the program file

Click File Programs→Modify Program Files, and it will bring up a dialog box for choosing

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a file name (Figure 6). Then click the name of the program you need to "open" in it, and

then click "Open", it will be opened in office in .xls format.

# 2) Creating and modifying programs

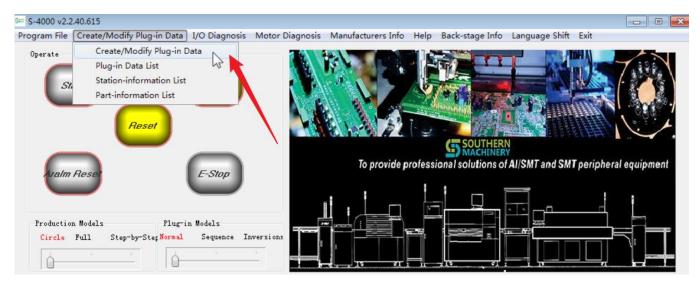


Figure 8

# Creating and modifying programs Generating or modifying plug-in data with the help of

the camera

Click Make and Modify Programs → Make and Modify Programs, and it will bring up the

following dialog box



	X	T	Angle	Station	For				
100	134, 103	35.845	0	1					
2	131.561	35.84T	0	1	100				
3	111.585	35.916	0	1					
4	91.591	35.977	0	1					
5	71.592	36,042	0	1					
6	51.584	36.092	0	1					
7	31.587	36.161	0	1					
8	11.576	36.203	Ŭ.	î					
à	-8,422	36.276	0	1					
10	-28, 431	36. 329	õ	î				1	
11	-48, 425	36.384	0	î					
12	-68.418	36.431	a	î					
13	-88, 431	36.478	ő	1					
14	-108.425	36.518	0	1					
15	-128, 451	36.586	ő	1					
16	-148.456	36.542	0	4					
17			0	1	~				
	~168.466	36.700	0	1	>				
¢					100				
Min ro	adius: 5	Pixel				Adjust	Add	Insert	Nove
		Pixel Pixel	Dina	yration				Insert	Nove
Win ro Vax ro			Dinw	yration		Adjust Clockwise rotation	Add Negative rotation	Insert Belete	Nove
Vaz ro		Pizel	line	yration 31		Clockwise	Hegative		
Max ro Value	of binaryzation	Pinel				Clockwise	Hegative		
Max ro Value	dius: [15	Pinel	Dinar egree			Cleckwise retation	Hegative rotation Page	Delete Add Dffset	MARK Array sodule fset of Angles
Max ro Value Match	of binaryzation angle: 0	Find C				Cleckwise retation	Hegative rotation Page	Delete Add Dffset	MARK
Max ro Value Match	of binaryzation	Find C				Cleckwise retation	Hegative rotation Page	Delete Add Dffset	MARK Array sodule fset of Angles
Max ro Value Match	of binaryzation angle: 0	Find C				Cleckwise rotation Auto-Adjust	Negative rotation Pause Adjunt	Delete Add DEfset	NARE Array sodule fset of Angles I: 0.000
Wax ro Value Match Watch	of binaryzation angle: 0	Pirel				Cleckwise rotation Auto-Adjust	Negative rotation Pause Adjunt	Delete Add DEExet OE Apply	MARE Arr ay module fset of Angles I: 0.000 T: 0.000 D: 0.000

Figure 9

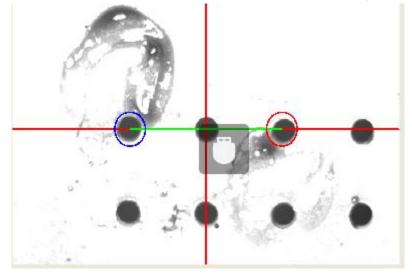
I Data display area: display the generated plug-in data

No.	z	Y	Angle	Station	Foot	Elemant'	N DADE	Direction	Width	Height	Conniszv
1	134.103	35.845	0	1					2.5	0.0	mark
2	131.561	35.847	0	1					2.5	0.0	check
3	111.585	35.916	0	1					2.5	0.0	check
4	91.591	35.977	0	1					2.5	0.0	check
5	71.592	36.042	0	1					2.5	0.0	check
6	51.584	36.092	0	1					2.5	0.0	check
7	31.587	36.161	0	1					2.5	0.0	check
8	11.576	36.203	0	1					2.5	0.0	check
9	-8.422	36.276	0	1					2.5	0.0	check
10	-28.431	36.329	0	1					2.5	0.0	check
11	-48.425	36.384	0	1					2.5	0.0	check
12	-68.418	36.431	0	1					2.5	0.0	check
13	-88.431	36.478	0	1					2.5	0.0	check
14	-108.425	36.518	0	1					2.5	0.0	check
15	-128.451	36.586	0	1					2.5	0.0	check
16	-148.456	36.642	0	1					2.5	0.0	check
17	-168.466	36.7	0	1					2.5	0.0	check
18	-168.515	16.683	0	1					2.5	0.0	check
19	-148.534	16.627	0	1					2.5	0.0	check
20	-128.531	16.567	0	1					2.5	0.0	check
21	-108.535	16.512	0	1					2.5	0.0	check
22	-88.534	16.44	0	1					2.5	0.0	check
23	-68.507	16.396	0	1					2.5	0.0	check
						page/total	o		Exit	1	
				100	and I	pager total	A hefter		akit		

Figure 10

II CCD image area: displaying the position of the camera capture image that has been matched by the plug-in, helping to generate the plug-in data and modifying the matching difference, the image will respond in real time.







III Matching parameters setting area

This area has three pages: matching parameters setting, camera plug-in axis position calibration, camera TABLE platform calibration.

1. Matching parameter setting



匹配参数设置	相机插件轴位置标定 相机TABLE平台			
最小半径:	Ł	像素		
最大半径 <b>:</b> <sup>2</sup>	25	像素	🔲 二值化图像	
图像二值化阀值	·		1	36
匹配零件脚宽度	: 10	 テ テ オ	÷	
匹配框调整 圆形	//半径): 3	0 f	象素	

Fig. 12

# Minimum Radius

The minimum target size radius to find in the matching ROI area.

#### Max Radius

The maximum target size radius to find in the matching ROI area.

#### **Binarization image**

Split the image by threshold into a black and white binary grayscale image.

#### Image binarization threshold

Adjusts the size of the threshold of the segmented image.

#### Matching part pin width

According to the distance between the two pins of the component, the distance range of

this machine is 5mm20mm.



Matching frame adjustment (circle/radius)

Adjusts the range of ROI area.

2. Camera insert axis position calibration

匹配参数设置	相机插件轴	位置标定	∃ 相机TABL	<b>B</b> 平台标定
	转	盘0度时村	目机与插件轴框	财位置
+=: -+ + + +	n/~=	相机	插件轴相对位置	₽: :
标记相相	加立里	X :	63.610	]
标记插件	轴位置	¥:	-7.884	]
标记3	完成	¥:	0.000	]
	ť		辅助动作	
	~ 書可移动平台; e Up""Page		送件	
键盘"Pag 键可调整宽度	e Up""Page	Down"		

Figure 13

# Calibration of camera position

Move a plug-in position into the ROI area of the camera image, click Calibrate Camera

Position, and the program matches and records the current platform position.

#### **Calibrating Plug-in Axis Positions**

Move the plug-in position used to calibrate the camera position under the plug-in axis,

fine-tune the XY axis, and manually move H so that H can be inserted at this position

again, and click Calibrate plug-in axis position to record the current platform position.

#### Marking completed

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When you have finished marking the camera position and marking the plug-in axis

position and, click Mark Complete, the program will calculate the relative positions of

the plug-in position under the camera image and the plug-in position under the plug-in

axis, and fill in the two edit boxes on the right.

<u>Test</u>

First move the plug-in position to the ROI area of the camera image, click Test The

program will first correct the specific position in the ROI area, and then automatically

move it under the plug-in axis, then you can check whether the data is accurate.

**Feeding** 

The feeder axis runs forward one frame.

Note: Keyboard direction keys can move the platform, 'A' and 'D' keys can adjust the width

3. Camera TABLE platform calibration

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---

匹配参数设置 相机插件轴位置	置标定 相机TABLE平台标定
标定相机平台	测试相机平台
X轴放大比率(pix/mm):	28.398
X轴偏移里(pix/mm):	0.465
Y <b>轴</b> 偏移朢(pix/mm):	-0. 453
Y轴放大比率(pix/mm):	30.132



# Calibrating the Camera Platform

Select the area on the matching board where there is only one matching target, as

shown in

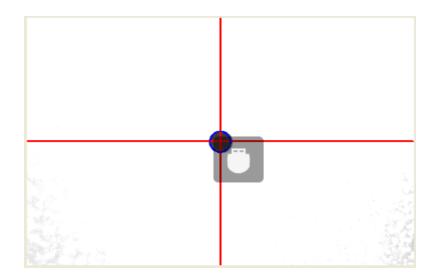


Figure 15



The program will calculate the number of pulses moving on the XY axis in the number of

pixels moving on the XY axis on the image, and determine the ratio of the distance on

the image to the actual distance.

#### Test camera platform

Move the matching target to any position within the image, and if all of them can automatically return to the center of the camera, it proves that the calibration is successful.

IV Matching operation area.

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#### Manual Coordinates

Move the plug-in coordinates under the ROI area of the image and record the XY coordinates directly. For PCB board imaging extremely irregular can not be matched in the case of obtaining the plug-in position

#### **Correction**

Replace the data of the selected row with the plug-in data obtained in the ROI area of the current image

#### <u>Add</u>

Add the plug-in data obtained in the ROI area of the current image to the end of the plug-in data list

Missing insert

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Inserts the plug-in data from the ROI area of the current image into the position of the

currently selected row

<u>Shift</u>

moving the current platform position to the corresponding position in the focal row if it

is not there.

If the current platform position is in the corresponding position of the focal row, move to

the corresponding position of the next row of the focal row.

#### Turntable positive rotation

The carousel rotates 90 degrees clockwise and is recorded in the plug-in data list.

Carousel Reverse Rotation

The carousel rotates 90 degrees counterclockwise and is recorded in the plug-in data list.

#### <u>Remove</u>

Removes the rotated rows in the plug-in data list (multiple rows can be consecutive).

#### MARK point

Add MARK point position correction to the program

#### Browse correction

Browse and correct the plug-in data in the plug-in data list starting from the focus row.

#### Pause browsing

Temporarily stops the browse correction of the plug-in data.

# **Offset Compensation**

Select a row and then move to the corresponding position of the focal row because of



the click Shift. Click Offset Compensation to fine-tune multiple rows of data after this

row that know the carousel rotation command or before the stop command.

#### Array module

After editing an area, several similar modules can be arrayed by this command

阵列模块	<b>×</b>
第一个基准点位置 X: 0.000 Y: 0.000 写入	X轴方向数里: 1 Y轴方向数里: 1
最后一个基准点位置 X: 0.000 Y: 0.000 写入	<ul> <li>● 新对象排在原对象后面</li> <li>○ 新对象排在程序最后面</li> </ul>
手动移动平台速度 <b>:</b> 	确定取消

Match a position in the first module and the same position in the last module, then enter the number of modules in the X direction and the number of modules in the Y direction to generate the plug-in data with several modules merged.

#### Read file

Like the Import program in the menu bar, read the plug-in data from a file into the plug-in data list.

#### Save file

Like the Export program in the menu bar, save the plug-in data from the plug-in data list to a disk file, and if there is no "Stop" or "Continue" command at the end of the list,



"Stop If there is no "Stop" or "Continue" command at the end of the list, the "Stop"

command is automatically added.

<u>Apply</u>

Save the matching parameters to the disk file so that it will be loaded automatically at

the next startup.

#### **Plug-in information list**

序号	X轴	Y轴	宽度	站位	脚位	元件	类型	方向	高度	命令	引脚半径ネ
1	6.000	1.000	6.000	2		1/4w电阻	元件	z	-0.010	插件检测	0.300
2	6.000	1.000	6.000	5			跳线	z	0.100	插件检测	0.000
3	6.000	1.000	6.000	4		1/6w电阻	元件	z	0.000	插件检测	0.000
4	6.000	1.000	6.010	2		1/4w电阻	元件	z	-0.010	插件检测	0.300
5	6.000	1.000	0.000	0					0.000	转盘正旋转	0.000
6	6.000	1.000	6.000	2		1/4w电阻	元件	z	-0.010	插件检测	0.300
7	6.000	1.000	6.000	5			跳线	z	0.100	插件检测	0.000
8	6.000	1.000	6.000	4		1/6w电阻	元件	z	0.000	插件检测	0.000
9	6.000	1.000	6.000	2		1/4w电阻	元件	z	-0.010	插件检测	0.300
10	6.000	1.000	0.000	0					0.000	转盘正旋转	0.000
11	6.000	1.000	6.000	2		1/4w电阻	元件	z	-0.010	插件检测	0.300
12	6.000	1.000	6.000	5			跳线	z	0.100	插件检测	0.000
13	6.000	1.000	6.000	4		1/6w电阻	元件	z	0.000	插件检测	0.000
14	6.000	1.000	6.000	2		1/4w电阻	元件	z	-0.010	插件检测	0.300
15	6.000	1.000	0.000	0					0.000	转盘正旋转	0.000
16	6.000	1.000	6.000	2		1/4w电阻	元件	z	-0.010	插件检测	0.300
17	6.000	1.000	6.000	5			跳线	z	0.100	插件检测	0.000
18	6.000	1.000	6.000	4		1/6w电阻	元件	z	0.000	插件检测	0.000
19	6.000	1.000	6.000	2		1/4w电阻	元件	z	-0.010	插件检测	0.300
20	6.000	1.000	0.000	0					0.000	转盘正旋转	0.000
21	6.000	1.000	6.000	2		1/4w电阻	元件	z	-0.010	插件检测	0.300
22	6.000	1.000	6.000	5			跳线	z	0.100	插件检测	0.000
23	6.000	1.000	6.000	4		1/6w电阻	元件	z	0.000	插件检测	0.000
24	6.000	1.000	6.000	2		1/4w电阻	元件	z	-0.010	插件检测	0.300



List of station information



位信息	一览表					
站位	元件名	类型	方向	数量	高度	元件引脚补偿
1 2	1/4w电阻	元件	z	14	-0.010	0.300
3 4 5 6	1/6w电阻 V 1/6w电阻	元件	z	7	0.000	0.000
7 8 9 10 11 12 13 14 15	1/6w电拍 1/4w电拍 1/4w电阻 1/2w电阻 1/2w电阻 玻璃二极管1N4148 黑二极管14007	8				
16 17 18 19 20						
把	站供料更换为	站供	料 确认更换		退出	

Component name can be selected here

You can change the feeding station of a component.

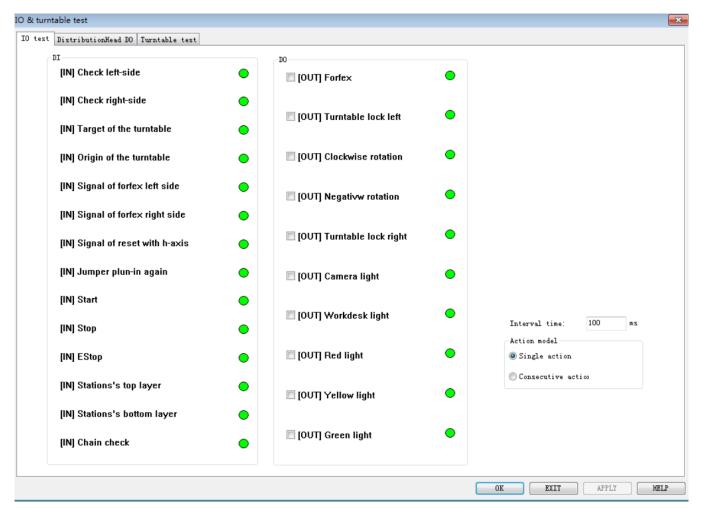


# List of component information

序号	元件名	类型	元件高度	引脚补偿	规格
1	888	元件	0.0	0.0	111
2	ЪЪЪ	元件	0.0	0.0	k
3	ccc	元件	0.0	0.0	q



# 3) I/O signal diagnosis



#### DI

**Check left Check right Check the insertion condition of the** component. If the component is not inserted into the hole accurately or the pin cutter does not touch the component pins during insertion, the machine will stop or give an alarm indication. The normal state is red, otherwise it is green. The signal is taken from the foot cutter, the principle of which is the formation of a circuit between the foot cutter, foot cutter and



earth when normal.

Station detection (upper level), station detection (lower level): The signal is detected

when the material on the material station is about to be used up.

Chain detection Detects the presence or absence of material on the chain.

Shear foot low position Detects if the shear foot is in low position.

Table in position Signal output from the table detection board when the magnet on the

table is close to the "in position" magnetic element of the table detection board.

Determines whether the rotary table stops or continues to rotate.

The signal output by the turntable detection board when the zero sensing magnet on the turntable approaches the "zero" magnetic sensing element of the turntable detection board.

**Head home signal: Click the "H-axis" switch on the panel,** the H-axis will be powered off, and when clicked again, the H-axis will be powered on and return to home position.

When the jumper is not inserted successfully, the jumper will be inserted again when the jumper is inserted at the current insert position.

**Start When the** start switch on the housing is pressed, the status changes from high to low and vice versa.

**Stop When the** stop switch on the housing is pressed, the status changes from high to low and vice versa.

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Camera light switch The light source for the camera.

Green, yellow, and red lights are warning lights on the housing.

Foot cutter The signal to drive the foot cutter to cut the foot cylinder action.

**Turntable lock open Signal to drive the** cylinder action on the turntable locking mechanism.

Rotary table press wheel Signal to drive the cylinder action on the rotary table press

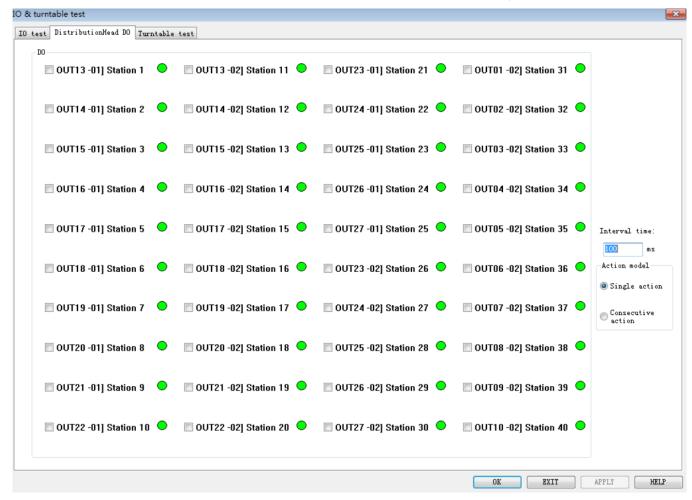
wheel mechanism.

**Clockwise A relay signal to** control the clockwise rotation of the rotary table.

Counterclockwise Relay signal to control counterclockwise rotation of the rotary table.

Base Signal to drive the base cylinder up and down.





DO signal on the distributor head for single and continuous testing of the distributor

head



IO & turntable t	test							<b>—</b> ×
IO test Distr	ributionHead DO Turntable test							
	TurnTable-Lock time:	100 ms		Signal Rotation				
				Signal Kotation	n			
	Clockwise rotation time:	100 ms						
	<b>.</b>	100 ms		🔘 Continuous Rota	ation			
	Negative rotation time:	100						
	Negative rotation time checked:	200 ms	🔘 Acquire	) Use				
	Negative rotation turntable-	lock off ahead of time:	20	ms				
		•						
	Turntable at Target	•		1				
	Turntable at orgin		Clockwise rotation					
	-	•						
	TurnTable Lock Left	•		L				
			Negative rotation					
	TurnTable Lock-Right	•	Totation					
				2				
	TurnTable clockwise rotat	ion 😐	Stop					
	_		rotation					
	TurnTable negative rotati	on 🗢						
					OK	EXIT	APPLY	HELP

Turntable time delay setting; turntable lock time; turntable positive rotation time, turntable counter rotation time within

Rotary table positive rotation Press this key once for single rotation, and the rotary table will rotate 90 degrees clockwise.

Continuous rotation Press this key once to rotate the rotary table 90 degrees clockwise.

Then turn 90 degrees clockwise again, and so on.

Counter Rotation Press this button once during a single rotation to rotate the table 90 degrees counterclockwise.



Press this key once for continuous rotation, the turntable will rotate 90

degrees counterclockwise.

Then turn 90 degrees counterclockwise again, and so on.

Stop rotation, after the turntable finishes the current rotation action, stop rotation, for

continuous rotation.

The turntable signal back to real-time monitoring of the DI DO signal associated with the

turntable.

#### 4.1) Motor debugging

or param shaft				Y shaft				W shaft		
Param		Action	Status	Param		Action	Status	Param	Action	<b>a</b>
	10.000	Accion	Status		10.000	Acción	Status		Accion	Status
Distance:	10.000	Right	EL+	Distance:	10.000	Front	EL+ 👝	Distance: 5.000	Extend	EL+
Start speed:	100.000			Start speed:	100.000		J 🛡	Start speed: 30.000		
Start speed.		Left	EL- 🔴	Diari speed.		Back	EL- 🔴	Start speed.	Reduce	EL-
Max speed:	500.000		•	Max speed:	500.000		· ·	Max speed: 200.000		
Position:	0.000	Reset	ORG 🔴	Position:	0.000	Reset	ORG 🔴	Position: 0.000	Reset	ORG
shaft				S shaft				H shaft		
Param		A						Param	Action	
raram		Action	Status	Param		Action	Status	5.000	Action	Status
Distance:	10.000	Advance	EL+	Distance:	10.000	Up	EL+ 🔴	Distance: 5.000	Up	EL+
Start	30.000	Advance		Start speed:	30.000	op		Start speed: 30.000	P	
Start		Advance	EL- 🔴	Start speed.		Down	EL-	Start speed.	Down	EL-
Max speed:	200.000		-	Max speed:	200.000		· ·	Max speed: 200.000		
Position:	0.000	Reset	ORG 🔴	Position:	0.000	Reset	ORG 🔴	Position: 0.000	Reset	ORG
shaft										Note:
Param		Action	Status	-Trun positi	on Heigh	t-1 of H	Height-2 of H	Chain first step-Jumper	offset	distance:m
	10.000		Diatus							speed:mm/s time:s
Discutee.		Advance	EL+ 🔴	X: 0.000	н1:0	000	Н2: 0.000	L: 80 % J: 15	. 000	
Start speed:	30.000			Y: 0.000	. U	. 000	12. 0.000			
		Advance	EL- 🔴	Set		Set	Set	Dist from station to chec	k: 8	
Max speed:	200.000					bet	bee			
Position:	0.000	Reset	ORG 🔴	Move to		ove to	Move to	Dist from station to	68	



Set the movement amount and movement speed of each axis, then move each axis according to the direction of the arrow on the button, test whether the time movement direction of each axis is consistent with the direction indicated on the arrow; test whether the positive and negative limits are valid and installed in reverse successively. Test whether each axis can return to the home position and whether the position of the home position is correct.

**Positive and negative limits are the abbreviations of the photoelectric switch signal** for the maximum limit position of each axis in the positive and negative directions, respectively.

Home position The "zero point" detection signal set.

**Stop position X: After the table is "zeroed", the** actual position of the X-axis is located, to exceed the previous zero position.

**Stop position Y: After the table is "zeroed",** the actual position of the Y-axis should be ahead of the zero position.

Turntable position X: The actual position of X-axis before the turntable starts to rotate.

Turntable position Y: The actual position of the Y-axis before the turntable starts to rotate.

**Plug-in axis height 1: plug-in axis comes with the component under** the plug, the location of the component pins on the surface of the PCB board value, to be a little higher than the location of the plug-in axis height 2 is located, to facilitate viewing plug-in holes and pins to its.

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Plug-in shaft height 2: plug-in shaft completely down inserted into the PCB surface

position.

Motor running speed restored to factory value: The speed of each axis is restored to

#### factory guideline value.

Compensation value setting.

L-axis: Relative value to the L axis origin when the insert axis is aligned with the L axis

material.

J axis: Compensation value of feeding jumper.

4) Manufacturer information

When you click Factory Info, the FactoryInfo.pdf file in the application directory opens.

If this file does not exist, a prompt message will pop up.

# 5) Help



# Help



Clicking Help opens the S4000HELP.pdf file in the application directory.

If this file does not exist, a message will pop up.

#### **Encrypted Dog**

After clicking Help, a dialog box pops up.

ftDog
If the encryption dog is not correct, please read the machine code and sent it to the manufacturers, and then claim the manufacturers seed a new encryption dog
Code:
Read
Times Of SoftDog:
Residue times Of SoftDog:
the next payment and claim the manufacturers t unlock password
Number Of Machine
Total number of payment
Number of payment
Unlock Password:
Unlock

If the current machine dongle is incorrect, please read the machine code and send this machine code to the manufacturer, and ask for a new dongle from the manufacturer.

If you are using installment payment method, and the valid time of installment use is up, the dongle is locked, please send the machine number and the number of installment you will pay to the manufacturer, and ask for the unlock password to unlock the dongle.

6) Backend Management





## 7) Statistics

		List of sta	tion info List of fo	otprint info			
Program Path:	element.xls	Station	Element's name	Element's type	Total	Successs	-
Start-up time:	0000h 15m 39s	1 2 3					
Run time:	0000h 00m 00s	4					
Stop time:	0000h 15m 39s	6 7 8					=
lug-in total:	p	9					
Plug-in speed:	p	11 12					
Success rate:	100.00%	13 14 15					
System time:	2022-12-08 21:24:49	16 17					
		18 19 20					
Save	Zreo ppm Exit	21 22 23					

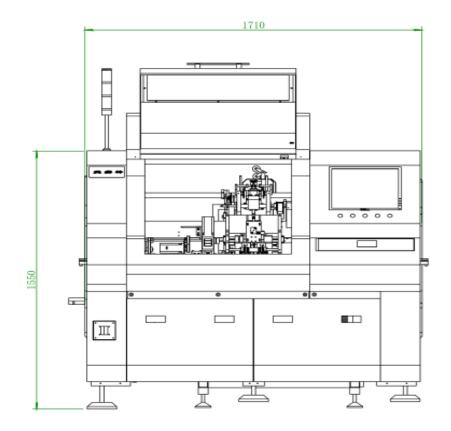
Show statistics of production data and efficiency

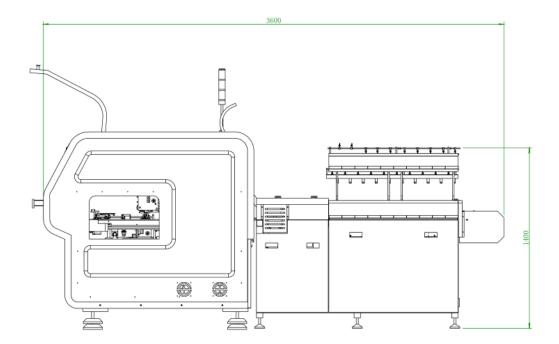
8) Quit

Click Exit to exit the program.

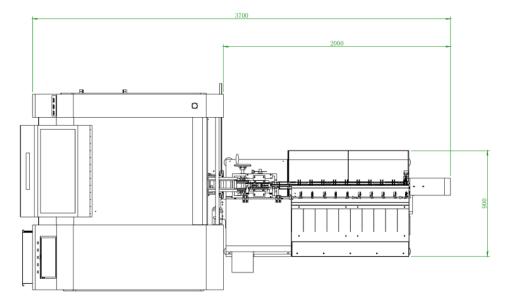
• Online horizontal 20-station elevation diagram



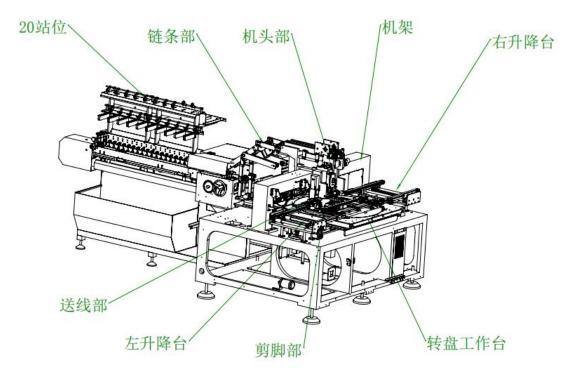






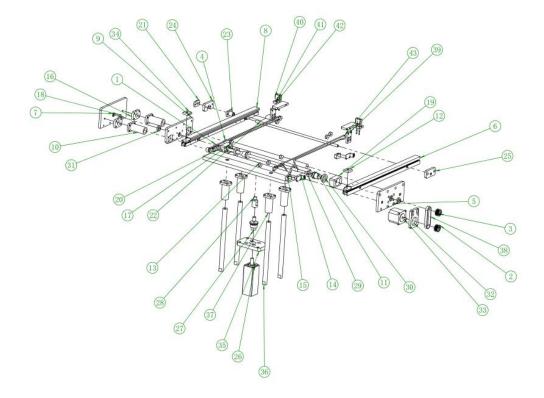


Online horizontal 20-station mechanism annotated diagram





- Mechanism details
- 1. Left lift table 4 axis (with turntable)



### Left lift table 4 axes (with turntable) material details

Item	Part No.	Description	Quantity	Remark
No.		Description	quantity	Nemili K
1	Drive shaft.	480020SJTZP01	1	
2	IST right timing whee1 01.	480020SJTZP02	1	
3	Synchronizer wheel.	480020SJTZP03	1	
4	20 Light shaft .	480020SJTZP04	2	
5	Left front flower aluminum fixing plate change.	480020SJTZP05	1	



		J3237; FAX:075523240492 web		
6	Left front aluminum change.	480020SJTZP06	1	
7	Left rear aluminum fixing plate to	480020SJTZP07	1	
8	Left rear aluminum	480020SJTZP08	1	
9	Left width adjustment plate.	480020SJTZP09	1	
10	Flange LM20UU.	480020SJTZP10	2	
11	Rear swivel wheel A.	480020SJTZP11	2	
12	IST SAI Steel 01.	480020SJTZP12	1	
13	Small belt pulley.	480020SJTZP13	15	
14	IST induction mount 01.	480020SJTZP14	2	
15	Sensor 02.	480020SJTZP15	2	
16	IST flange gasket 01.	480020SJTZP16	2	
17	Belt pulley cushion height block.	480020SJTZP17	1	
18	Bearing 61800.	480020SJTZP18	2	
19	Belt pulley cushion height block B.	480020SJTZP19	1	
20	Left rail support plate.	480020SJTZP20	1	
21	Light axis limit block.	480020SJTZP21	1	
22	Diameter 10 optical shaft.	480020SJTZP22	1	
23	LHFCD10 (LMH613).	480020SJTZP23	1	
24	Bushing retaining plate.	480020SJTZP24	1	
25	Bushing retaining plate B.	480020SJTZP25	1	
26	Cylinder SDAS4075B.	480020SJTZP26	1	
27	JS4014150(0).	480020SJTZP27	1	
28	Cylinder extension rod.	480020SJTZP28	1	
29	Diameter 12 clamping ring	480020SJTZP29	1	
30	61805 bearing 25 37 7	480020SJTZP30	2	



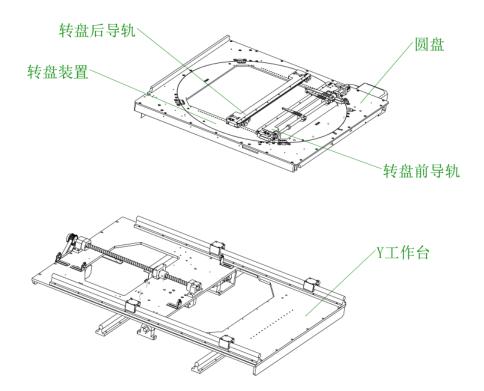
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		-	T	
31	Bearing 61803 17 26 5	480020SJTZP31	2	
32	Motor mount	480020SJTZP32	1	
33	Hongyuan Motor 57BYG250B	480020SJTZP33	1	
34	IST SAI Steel 01.	480020SJTZP34	1	
35	Base cylinder mounting plate	480020SJTZP35	1	
36	20 Lifting light $shaft$	480020SJTZP36	4	
37	Flange LM20UUY.	480020SJTZP37	4	
38	Belt 13	480020SJTZP38	1	
39	Probe fixing plate.	480020SJTZP39	2	
40	Probe fixing sai steel 2.	480020SJTZP40	2	
41	Probe support block .	480020SJTZP41	2	
42	Probe pin	480020SJTZP42	4	
43	Belt left lift table 4 axis	480020SJTZP43	2	

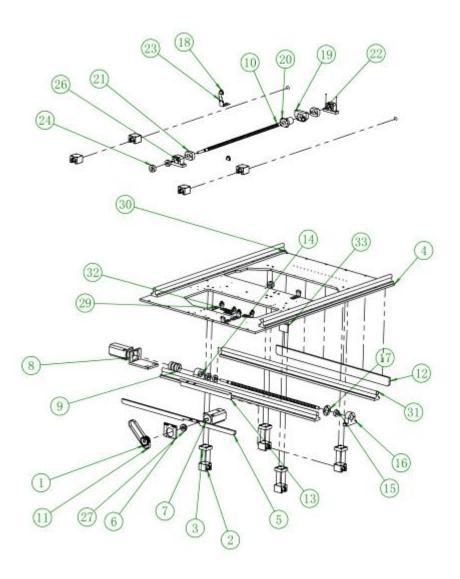
2. Turntable table mechanism annotated diagram





Exploded view of Y table





#### Y table material detail

Item	Part No.	Description	Quantity	Remark
No.				
1	XY screw drive pulley HTS 5MMA.	480020YTB01	1	
2	Platform slider.	480020YTB02	8	
3	Raised shims.	480020YTB03	4	
4	Y table plate.	480020YTB04	1	

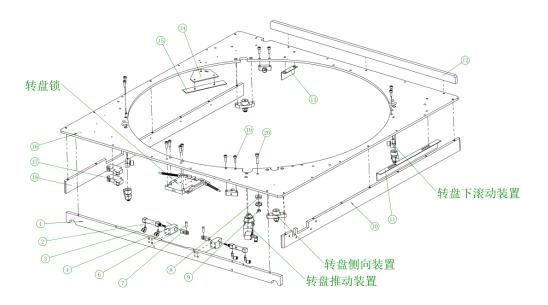


		J3237; FAX:075523240492 W		
5	<b>Y table</b> plate reinforcement plate 2.	480020YTB05	1	
6	Y motor mount.	480020YTB06	1	
7	400W motor.	480020YTB07	2	
8	ISTX platform motor mount 01.	480020YTB08	1	
9	Platform motor coupling (1412).	480020YTB09	1	
10	Platform screw 1.	480020YTB10	2	
11	Belt 157L15.	480020YTB11	1	
12	Y table plate reinforcement plate 3.	480020YTB12	1	
13	$\boldsymbol{X}$ home sensing plate .	480020YTB13	1	
14	ISTX bearing retainer.	480020YTB14	1	
15	Bearing 6202.	480020YTB15	6	
16	X-screw bearing housing 1.	480020YTB16	1	
17	IST Retainer .	480020YTB17	1	
18	SX670.	480020YTB18	7	
19	Y-screw nut bush.	480020YTB19	1	
20	sfs20103.8 nut.	480020YTB20	1	
21	Y buffer rubber.	480020YTB21	2	
22	Y screw bearing seat 1.	480020YTB22	1	
23	Ylimit sensor bracket .	480020YTB23	1	
24	16 Clamping ring.	480020YTB24	1	
25	XY screw drive pulley HTS 5MM.	480020YTB25	1	
26	Y screw rod bearing seat 2.	480020YTB26	1	
27	18 Clamping ring .	480020YTB27	1	
28	X-screw nut bushing.	480020YTB28	1	
29	Tank chain fixing plate	480020YTB29	1	
30	Guide rail 2 base	480020YTB30	4	



31	Guide rail 2	480020YTB31	4	
32	Y-axis induction mount	480020YTB32	6	
33	Base sensor mounting piece	480020YTB33	1	

## Exploded view of the disc



#### Disc material breakdown

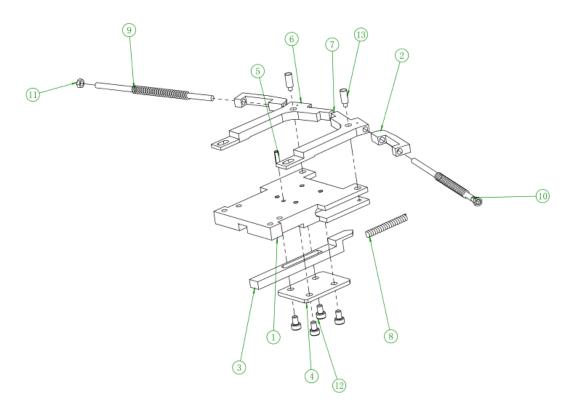
Item No.	Part No.	Description	Quantity	Remark
1	Turntable front shield	480020YPTB01	1	
2	CJ2B1015	480020YPTB02	2	
3	Elbow pipe (KJLO4M3)	480020YPTB03	6	
4	Cylinder mounting block	480020YPTB04	2	



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5	Platform Slider	480020YPTB05	10				
6	White Sail Steel Pins	480020YPTB06	2				
7	Cylinder connecting rod	480020YPTB07	2				
8	Bearing F606z	480020YPTB08	2				
9	M6 nut	480020YPTB09	1				
10	Turntable right guard	480020YPTB10	1				
11	Y home sensing plate	480020YPTB11	1				
12	Rear reinforcement plate of turntable	480020YPTB12	1				
13	Y limit inductor plate	480020YPTB13	1				
14	Turntable inductor plate	480020YPTB14	1				
15	Turntable inductor	480020YPTB15	1				
16	Disc mounting plate 1	480020YPTB16	1				
17	Solenoid Valve SMC (VQZ115 5GBM5PR)	480020YPTB17	2				
18	Turntable left shield	480020YPTB18	1				
19	M5X15 screw	480020YPTB19	20				
20	M6X25 screws	480020YPTB20	7				

Exploded view of turntable lock





#### Turntable lock material breakdown

Item No.	Part No.	Description	Quantity	Description
1	Turntable lock	480020ZPS01	1	
2	Turntable Lock Kit 2	480020ZPS02	2	
3	Locking pin	480020ZPS03	1	
4	Turntable lock cover	480020ZPS04	1	
5	Hollow pin (diameter 3)	480020ZPS05	1	
6	Turntable lock fitting 3	480020ZPS06	1	
7	Turntable Lock Kit 1	480020ZPS07	1	
8	Turntable lock	480020ZPS08	1	

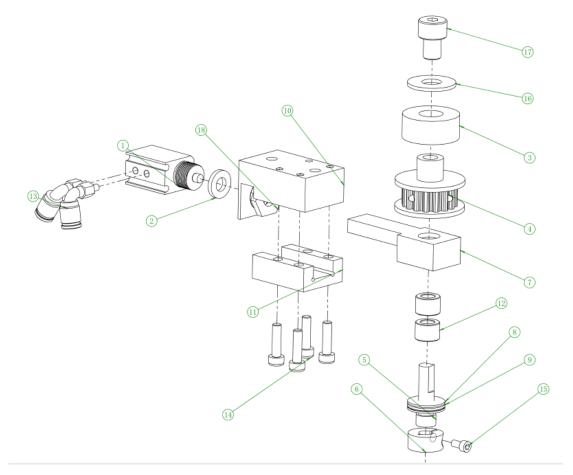


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	spring			
9	Spring 2	480020ZPS09	2	
10	Turntable Lock Kit 4	480020ZPS10	2	
11	M4 Nut	480020ZPS11	2	
12	M4X6 screw	480020ZPS12	4	
13	Turntable locking pins	480020ZPS13	2	

## Exploded view of turntable pushing device



## Turntable pushing device material breakdown

Item No.	Part No.	Description	Quantity	Description
1	CJP2B105D	480020ZPTD01	1	



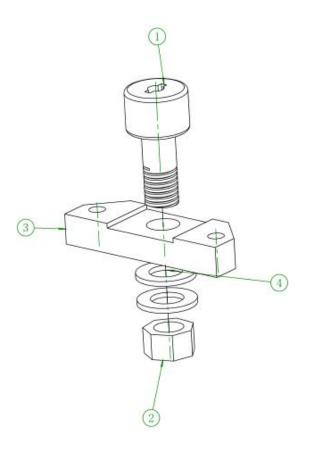
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	cylinder			
2	Gasket 1	480020ZPTD02	1	
3	Turntable drive wheel	480020ZPTD03	1	
4	Synchronous wheel	480020ZPTD04	1	
5	Turntable wheel shaft	480020ZPTD05	1	
6	Clamping ring	480020ZPTD06	1	
7	Push block	480020ZPTD07	1	
8	Bearing piece	480020ZPTD08	2	
9	Flat needle roller bearings	480020ZPTD09	1	
10	Turntable pressure wheel mounting block 1	480020ZPTD10	1	
11	Turntable pressure wheel mounting cover	480020ZPTD11	1	
12	Unidirectional bearing (SCE45)	480020ZPTD12	2	
13	Elbow tube (KJL04M3)	480020ZPTD13	2	
14	M4X15	480020ZPTD14	4	
15	M3 screw x 6	480020ZPTD15	1	
16	M8X screw gasket	480020ZPTD16	1	
17	M8X10 screw	480020ZPTD17	1	
18	CJP2B105D Cylinder Nut	480020ZPTD18	1	

Exploded view of turntable lateral device



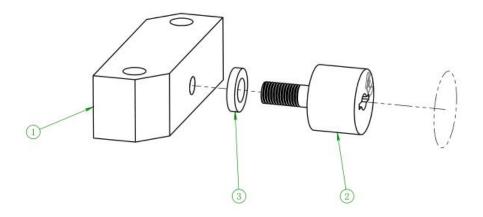


#### Turntable lateral device material breakdown

Item No.	Part No.	Description	Quantity	Remarks
1	CR12V	480020ZPCX01	1	
2	CR12V Nut	480020ZPCX02	1	
3	CR12V bearing mount	480020ZPCX03	1	
4	Segon spacer 2	480020ZPCX04	2	



Exploded view of under turntable rolling device

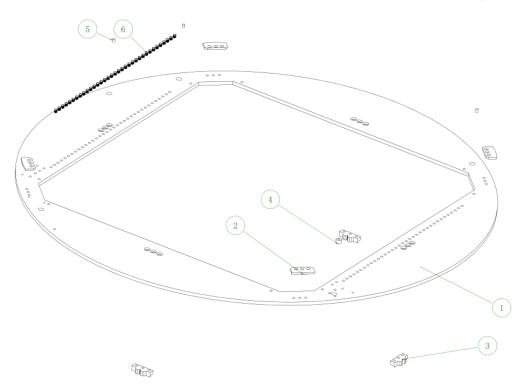


#### Under turntable rolling device material breakdown

Item	Part No.	Description	Quantity	Remark
No.	rait NO.	Description	Quantity	Kelliai k
1	CR10I mount	480020ZPXGD01	1	
2	CR10I	480020ZPXGD02	1	
3	Segang Gasket 1	480020ZPXGD03	1	

### Exploded view of the turntable unit



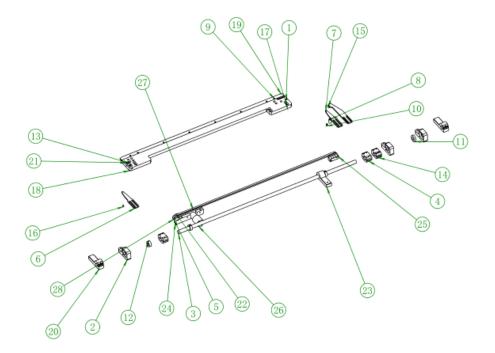


#### Turntable device material breakdown

Item No.	Part No.	Description	Quantity	Remarks
1	Turntable.	480020zpzz01	1	
2	Turntable card.	480020zpzz02	4	
3	Turntable fixing block.	480020zpzz03	4	
4	Magnet mounting ring.	480020zpzz04	1	
5	Turntable magnet (diameter 4, length 5).	480020zpzz05	5	
6	M5 bracket	480020zpzz06	70	



#### Exploded view of the front guide of the turntable



### Turntable front guide material detail

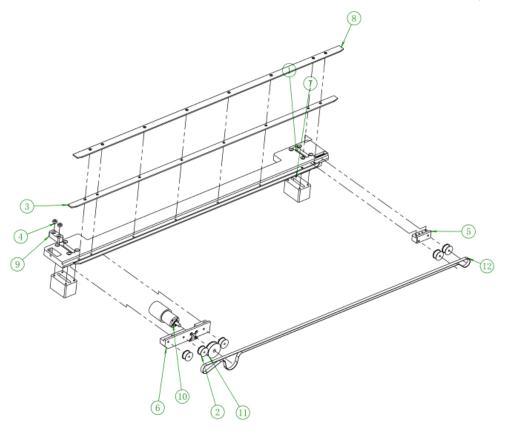
Item No.	Part No.	Description	Quantity	Remarks
1	Front guide plate A	480020ZPQDG01	1	
2	Clamp block B	480020ZPQDG02	3	
3	12 Light shaft	480020ZPQDG03	1	
4	Clamp block 4	480020ZPQDG04	2	
5	Small belt pulley	480020ZPQDG05	5	
6	Positioning plate Small hole 09	480020ZPQDG06	1	
7	Positioning plate09	480020ZPQDG07	1	
8	Clip post	480020ZPQDG08	1	
9	Upper stainless steel plate09	480020ZPQDG09	1	



10	Positioning PIN general purpose	480020ZPQDG10	1	
11	Bearing 690109	480020ZPQDG11	3	
12	Clamping ring09	480020ZPQDG12	3	
13	IST brass 06	480020ZPQDG13	2	
14	IST Clamping Block AA09	480020ZPQDG14	1	
15	IST adjusting block 09	480020ZPQDG15	1	
16	Turntable positioning PIN09	480020ZPQDG16	1	
17	Turntable track cushion.	480020ZPQDG17	1	
18	Turntable track cushion B.	480020ZPQDG18	1	
19	Lower stainless steel plate A.	480020ZPQDG19	1	
20	Warp clamp block09	480020ZPQDG20	2	
21	Sail Steel <b>B.09</b>	480020ZPQDG21	1	
22	Belt pulley fixing block B09	480020ZPQDG22	1	
23	Spring top block	480020ZPQDG23	1	
24	Front Belt Tensioner Mounting Plate B.09	480020ZPQDG24	1	
25	Belt compression mounting plate B.09	480020ZPQDG25	1	
26	TG47CFU16 CKA(24V motor)	480020ZPQDG26	1	
27	Small belt pulley	480020ZPQDG27	1	
28	Belt 1	480020ZPQDG28	1	

Exploded view of the rear guide of the turntable





#### Turntable rear guide material breakdown

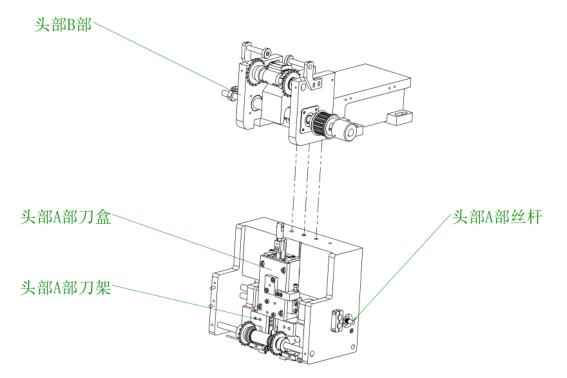
Item	Part No.	Description	Quantity	Remarks
No.				
1	Rear guide plate A.09	480020ZPHDG01	1	
2	Small belt pulley.09	480020ZPHDG02	5	
3	Lower stainless steel plate.09	480020ZPHDG03	]	
4	IST brass 06.09	480020ZPHDG04	2	
5	Belt hold down mounting plate B.09	480020ZPHDG05	1	
6	Belt pressure pulley mounting plate B.09	480020ZPHDG06	1	



7	Sliding plate locking block B.09	480020ZPHDG07	2	
8	Lower stainless steel plate A.	480020ZPHDG08	1	
9	Race steel <b>B.09</b>	480020ZPHDG09	1	
10	TG47CFU16 CKA(24V motor)	480020ZPHDG10	1	
11	Small belt pulley	480020ZPHDG11	1	
12	Belt 1	480020ZPHDG12	1	

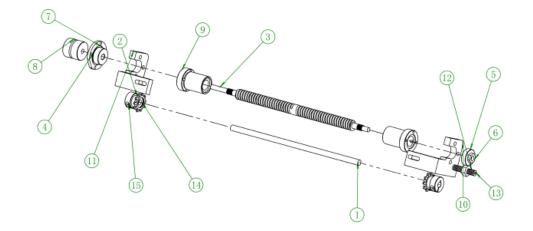
#### 3. Head assembly schematic







## Exploded view of head part A filament rod

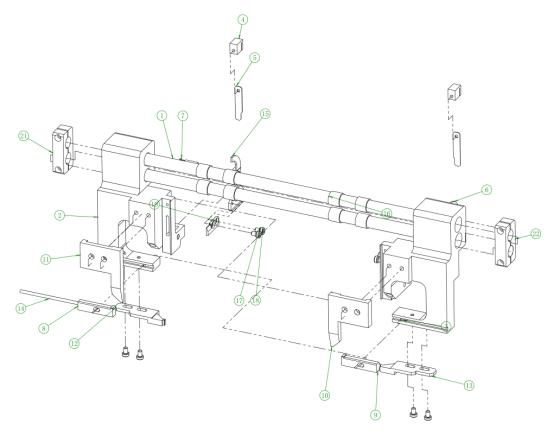


Item	Part No.	Description	Quantity	Remark
No.		Description	quantity	Romain
1	Feed sprocket shaft 2016.	480020TBSG01	1	
2	10-tooth sprocket 2016.	480020TBSG02	2	
3	Left and right rotation screw 2016.	480020TBSG03	1	
4	Bearing <b>5200z2016</b> .	480020TBSG04	1	
5	Bearing <b>6200z2016</b> .	480020TBSG05	1	
6	M10X1 nut2016.	480020TBSG06	2	
7	Left and right screw bearing cover 2016.	480020TBSG07	1	
8	Coupling (108) .	480020TBSG08	1	
9	Left and right	480020TBSG09	2	



	rotation nuts 2016.			
10	Screw rod right fitting 2016.	480020TBSG10	1	
11	Screw rod left fitting 2016.	480020TBSG11	1	
12	M10 Nut 2016.	480020TBSG12	1	
13	M10X50 Kimi Screw 2016.	480020TBSG13	1	
14	Bearing <b>68002016</b> .	480020TBSG14	2	
15	10 Holding ring AA2016.	480020TBSG15	2	

Exploded view of head A tool holder



Head A tool holder material breakdown



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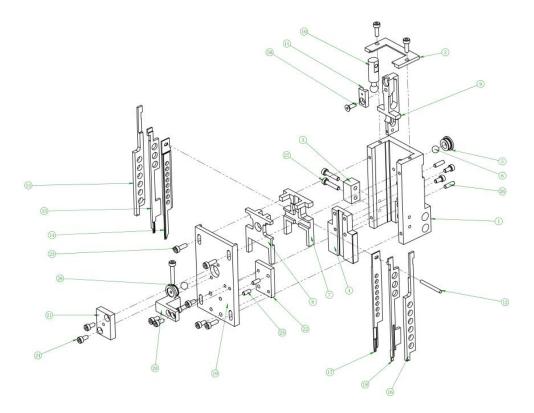
Item	Part No.	Description	Quantity	Remark
No.	Tart no.	Description	Quantity	Kemar K
1	12 optical shaft 2016.	480020TBDJ01	2	
2	Left tool holder2016.	480020TBDJ02	1	
3	Right tool holder 2016.	480020TBDJ03	1	
4	Spring plate fixing block2016.	480020TBDJ04	2	
5	Spring plate 2016.	480020TBDJ05	2	
6	IST left forming tool holder	480020TBDJ06	1	
7	Forming tool holder mounting pin 2016.	480020TBDJ07	2	
8	Left lower cutting knife2016.	480020TBDJ08	1	
9	Right lower cutter 2016.	480020TBDJ09	1	
10	Right knife guard cover 2016.	480020TBDJ10	1	
11	Left knife guard cover 2016.	480020TBDJ11	1	
12	Left outer forming knife guide2016.	480020TBDJ12	1	
13	Right outer forming knife guide 2016.	480020TBDJ13	1	
14	Wire feed tube sleeve2016.	480020TBDJ14	1	
15	IST right forming tool holder	480020TBDJ15	1	
16	Copper bushing (inner 12 outer 1 <b>4) 2016.</b>	480020TBDJ16	8	
17	M <b>4 screw</b> rubber ring2016.	480020TBDJ17	4	
18	M4X6 screws2016.	480020TBDJ18	8	
19	Left forming insert2016.	480020TBDJ19	1	
20	Right Forming Blade	480020TBDJ20	1	



	A2016.			
21	Double head holding block A2016.	480020TBDJ21	2	
22	Double-headed clamping block B2016.	480020TBDJ22	2	

Exploded view of head A tool box





Head A cutter box material breakdown

Item No.	Part No.	Description	Quantity	Remark
1	Knife box	480020TBDH01	1	
2	Knife box cover	480020TBDH02	1	
3	Knife box adjusting block 1	480020TBDH03	1	
4	Knife box pad	480020TBDH04	1	
5	Knife box upper plate plug	480020TBDH05	2	
6	9.5 Round ball	480020TBDH06	2	
7	Block in knife box	480020TBDH07	1	
8	Block outside the knife box	480020TBDH08	1	

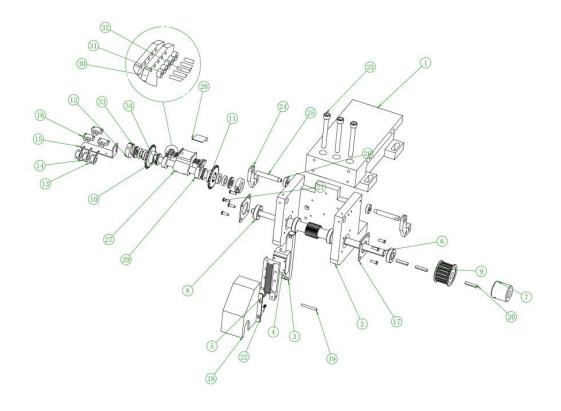


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9	Cross cutter holder	480020TBDH09	1	
10	Connecting round head	480020TBDH10	1	
11	Connecting head cover	480020TBDH11	1	
12	Knife edge connector pin	480020TBDH12	1	
13	Left cutter	480020TBDH13	1	
14	Left push knife	480020TBDH14	1	
15	Left external forming knife	480020TBDH15	1	
16	Right cutting knife	480020TBDH16	1	
17	Right push knife	480020TBDH17	1	
18	Right outer forming knife	480020TBDH18	1	
19	Knife box upper plate	480020TBDH19	1	
20	Knife box adjustment block	480020TBDH20	1	
21	Knife box plug guard block	480020TBDH21	1	
22	Cutter box positioning block	480020TBDH22	1	
23	M5X15 screw	480020TBDH23	6	
24	M5X10 screws	480020TBDH24	8	
25	Knife box pin 1	480020TBDH25	2	
26	Knife box pins 2	480020TBDH26	2	
27	M5X25 screws	480020TBDH27	2	
28	M5X30 screws	480020TBDH28	1	
29	M5 nuts	480020TBDH29	1	
30	M5X12 flat head screws	480020TBDH30	1	



#### Exploded view of head part B



Head part B material breakdown



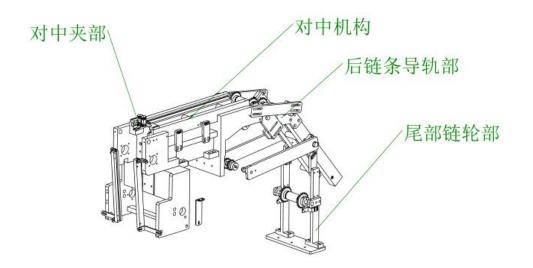
Item		D		
No.	Part No.	Description	Quantity	Remark
1	Head casting	480020TBBBF01	1	
2	Guide rail mount	480020TBBBF02	1	
3	Head Linear Guide	480020TBBBF03	1	
4	Guide rail slider	480020TBBBF04	1	
5	Head rack	480020TBBBF05	1	
6	H Turning Gear	480020TBBBF06	1	
7	H shaft adjusting wheel	480020TBBBF07	1	
8	Bearing 6003z	480020TBBBF08	4	
9	Synchronizer wheel 16L	480020TBBBF09	1	
10	Clamp top block shaft	480020TBBBF10	1	
11	18 teeth sprocket	480020TBBBF11	2	
12	15 clamping ring	480020TBBBF12	2	
13	H <b>-axis zero</b> position piece	480020TBBBF13	2	
14	H-axis Inspection Sheet	480020TBBBF14	1	
15	Head Photoelectric Detection Block	480020TBBBF15	1	
16	SX670	480020TBBBF16	3	
17	H-axis bearing cover	480020TBBBF17	2	
18	Gear protection cover	480020TBBBF18	1	
19	Knife box connecting pin	480020TBBBF19	1	
20	Кеу (5530)	480020TBBBF20	3	
21	M5X8 Round Head Screw	480020TBBBF21	8	
22	M5X8 kimi screws	480020TBBBF22	2	
23	M10X90 screws	480020TBBBF23	3	
24	Centering Press Block	480020TBBBF24	2	
25	Centering Press	480020TBBBF25	2	



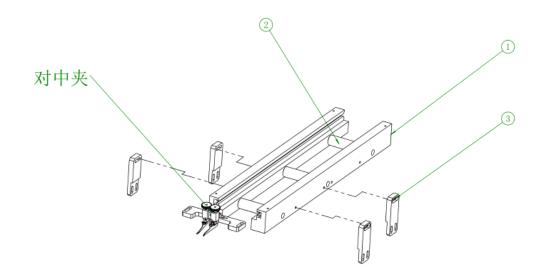
	Shaft			
26	Bearing 608z	480020TBBBF26	2	
27	Material top block	480020TBBBF27	1	
28	Material top piece	480020TBBBF28	1	
29	Right clip top piece	480020TBBBF29	1	
30	Left material clamp top block	480020TBBBF30	1	
31	Bearing 681XZZ	480020TBBBF31	10	
32	1.5 Pin	480020TBBBF32	10	
33	Bearing 6802	480020TBBBF33	4	
34	Sheet Bearings	480020TBBBF34	4	Inner 15, outer 27.5, thickness 4

4. Exploded view of chain section mechanism





Exploded view of alignment mechanism



Material breakdown of alignment mechanism

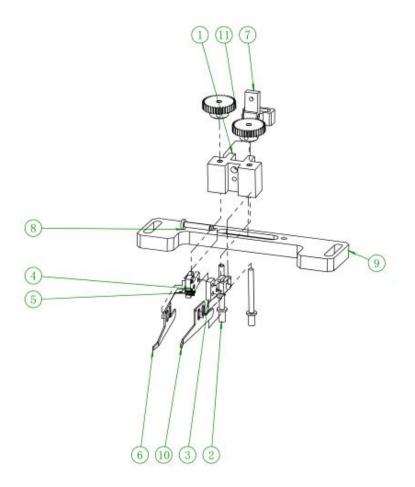


Item No.	Part No.	Description	Quantity	Remark
1	Chain mounting plate 2016.	480020C01	2	
2	Small race steel wheel2016.	480020C02	3	
3	Chain groove support block 2016.	480020C03	4	

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### Exploded view of alignment clamps



## Alignment clip material breakdown

Item	Dont No	Description	Quantity	Domonia
No.	Part No.	Description	Quantity	Remark

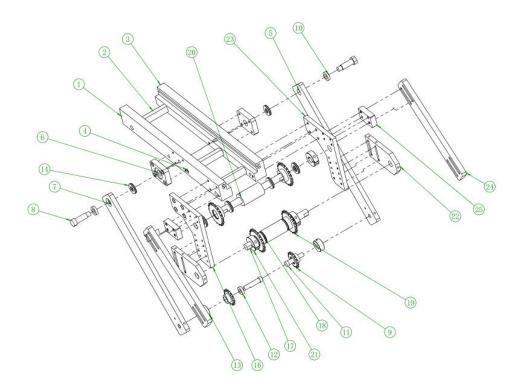


1	Alignment fixing frame 2016.	480020ZZJ01	1	
2	Alignment clamp pin2016.	480020ZZJ02	2	
3	Centering pin right mounting block2016.	480020ZZJ03	1	
4	Centering clamp left mounting block2016.	480020ZZJ04	1	
5	Alignment spring2016.	480020ZZJ05	1	
6	Right centering clip 2016.	480020ZZJ06	1	
7	Alignment mount 2016.	480020ZZJ07	1	
8	3MM pin2016.	480020ZZJ08	1	
9	Alignment clamp mounting plate2016.	480020ZZJ09	1	
10	Left centering clip plate2016.	480020ZZJ10	1	
11	Cylindrical gear 34 ×0.55	480020ZZJ11	2	

Exploded view of rear chain guide section

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## Rear chain guide section material breakdown

Item No.	Part No.	Description	Quantity	Remark
1	Rear chain mounting plate 2016.	480020DLT01	1	
2	Small race steel wheel2016.	480020DLT02	3	
3	Rear chain mounting plate Y2016.	480020DLT03	1	
4	M6X35 Screw 2016.	480020DLT04	2	
5	Chain fixing plate2016.	480020DLT05	1	
6	Chain spacer AA2016.	480020DLT06	2	
7	Chain fixing plate 2016Y.	480020DLT07	1	
8	1225M10 isometric	480020DLT08	2	

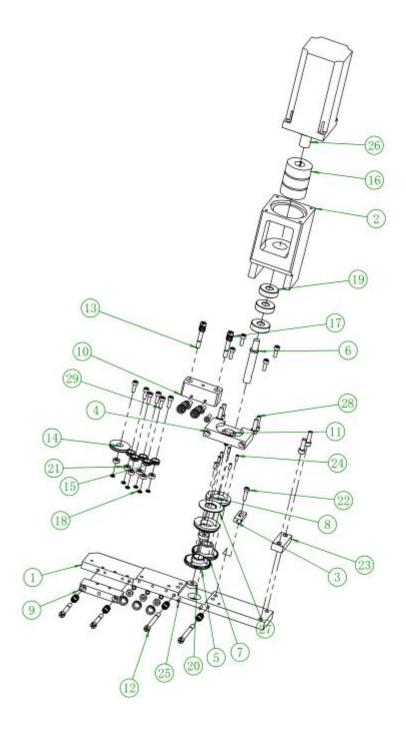


	screw			
9	12 tooth sprocket A2016.	480020DLT09	2	
10	Bearing 61801 inner 12 outer 21 thick 52016.	480020DLT10	2	
11	Sprocket pin 2016.	480020DLT11	2	
12	Bearing <b>68002016</b> .	480020DLT12	1	
13	10 Holding ring AA2016.	480020DLT13	2	
14	Sheet bearing (inner 12, outer 25. 5,thick 4)2016.	480020DLT14	2	
15	2_1	480020DLT15	1	
16	Sprocket adjustment mounting plate 11	480020DLT16	1	
17	Centering sprocket shaft 2016.	480020DLT17	2	
18	Sheet bearing (inner 15, outer 27. 5,thickness 4).	480020DLT18	8	
19	18-tooth sprocket.	480020DLT19	4	
20	Steel wheel 2016.	480020DLT20	2	
21	15 Holding ring.	480020DLT21	3	
22	Sprocket adjustment mounting plate 2	480020DLT22	2	
23	Sprocket adjustment mounting plate 12	480020DLT23	1	
24	Chain guide connection plate	480020DLT24	2	
25	Chain guide connecting plate spacer	480020DLT25	2	



Exploded view of wire feeder part X







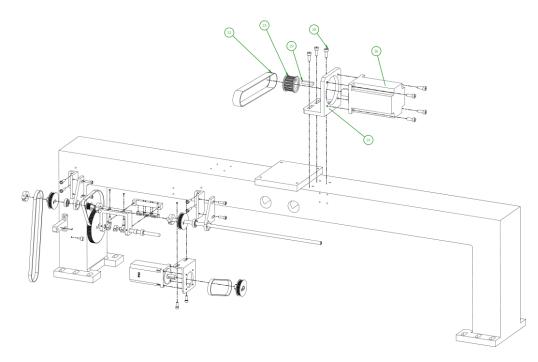
### Wire feeder part X material breakdown

Item No.	Part No.	Description	Quantity	Remarks
1	Wire feed mounting plate 2016.	480020SX01	1	
2	Jumper motor mount 2016.	480020SX02	1	
3	Jumper tube pressure block2016.	480020SX03	1	
4	Crimp wheel mounting plate2016.	480020SX04	1	
5	Wire feed gear 22016.	480020SX05	1	
6	Gear shaft 2016.	480020SX06	1	
7	Wire feed gear 2016.	480020SX07	1	
8	<b>0.4 Crimp</b> Wheel 2016.	480020SX08	2	
9	Crimp plate22016.	480020SX09	1	
10	Crimp plate 2016.	480020SX10	1	
11	Jumper wheel screw 2016.	480020SX11	1	
12	M5 custom screws 2016.	480020SX12	2	
13	M5 custom screws 22016.	480020SX13	4	
14	Large Crimp Wheel 2016.	480020SX14	1	
15	Crimping wheel 32016.	480020SX15	10	
16	Coupling (814) 2016.	480020SX16	1	
17	Spring 2016.	480020SX17	6	
18	Spring washers 2016.	480020SX18	11	
19	Bearing 60002016.	480020SX19	3	
20	605 Bearings 2016.	480020SX20	2	
21	6384 bearing 2016.	480020SX21	11	
22	M4X15.	480020SX22	1	

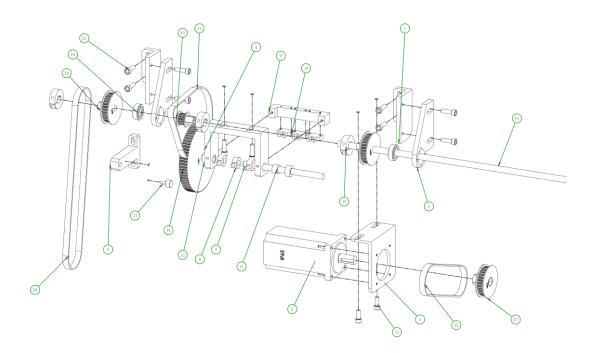


23	Wire feed connection spacer 2016.	480020SX23	1	
24	Pin diameter 3 long 92016.	480020SX24	6	
25	Pin diameter 3 long 182016.	480020SX25	2	
26	400W motor .	480020SX26	1	
27	Bearing cover 2016.	480020SX27	1	
28	Hexagon socket cheese head screws GB_T70.12008_M5X16	480020SX28	6	
29	Hexagon socket cheese head screws GB_T70.12008_M4X12	480020SX29	15	

### Exploded view of the frame







### Rack material breakdown

Item No.	Part No.	Description	Quantity	Remark
1	<b>Z-axis</b> drive rod mount 1	480020GZJJ01	2	
2	<b>Z-axis</b> drive rod mount 2	480020GZJJ02	2	
3	Jumper Pipe Mounting Block	480020GZJJ03	1	
4	Width sensor shelf	480020GZJJ04	1	
5	Z motor mounting bracket	480020GZJJ05	1	
6	400W Motor	480020GZJJ06	1	
7	Width sensing shaft	480020GZJJ07	1	
8	Width sensing piece	480020GZJJ08	3	



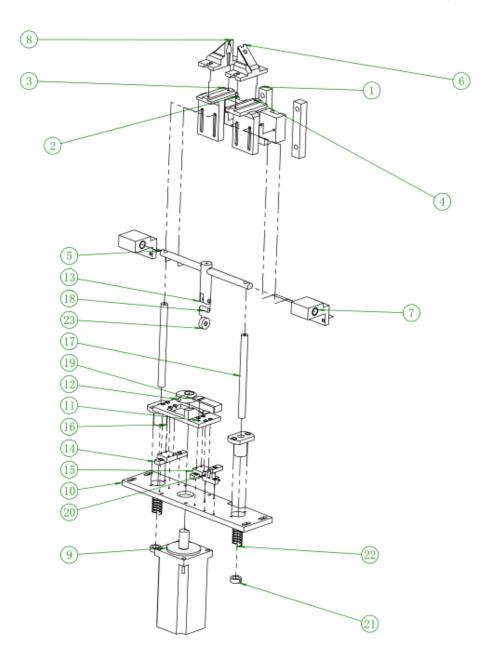
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		203237; FAX:075523240492 Web	5100.00 00.5111	
9	Width sensor mounting plate	480020GZJJ09	1	
10	SX670	480020GZJJ10	3	
11	BA66Z	480020GZJJ11	2	
12	Limit ring (9.5)	480020GZJJ12	2	
13	Width induction small belt pulley	480020GZJJ13	1	
14	Width induction pulley	480020GZJJ14	1	
15	Upper head width drive lever	480020GZJJ15	1	
16	6000 Bearing	480020GZJJ16	2	
17	Jumper drive pulley	480020GZJJ17	1	
18	Jumper drive pulley timing pulley	480020GZJJ18	2	
19	Jumper drive pulley timing pulley clamping ring	480020GZJJ19	3	
20	Belt <b>250XL10</b>	480020GZJJ20	1	
21	Belt 182XL10	480020GZJJ21	1	
22	Belt 156XL10	480020GZJJ22	1	
23	Screw bearing (CF4B)	480020GZJJ23	1	
24	Head motor mount	480020GZJJ24	1	
25	Synchronizer wheel A16L	480020GZJJ25	1	
26	Combined machine working frame .	480020GZJJ26	1	
27	Panasonic 1000W motor	480020GZJJ27	1	
28	Heat sink fan	480020GZJJ28	1	
29	M8X20 screw	480020GZJJ29	7	
30	Key <b>(8840)</b>	480020GZJJ30	1	
31	M6X20 screw	480020GZJJ31	10	
32	M6X15 screws	480020GZJJ32	2	
33	Belt <b>248L28</b>	480020GZJJ33	1	

Exploded view of shear foot base





### Shear foot base material breakdown

Item			0	
No.	Part No.	Description	Quantity	Remarks



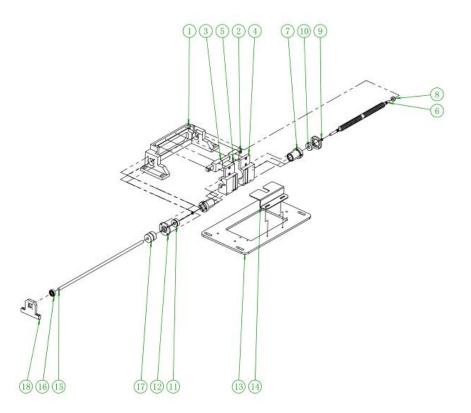
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1	B shear foot slide 8515.	480020JJDZ01	2	
2	B slider 2.	480020JJDZ02	2	
3	Bleft shear foot up and down sliding fixing.	480020JJDZ03	1	
4	<b>Bright</b> shear foot upper and lower sliding fixing.	480020JJDZ04	1	
5	B10 Light shaft.	480020JJDZ05	1	
6	Bright shear foot cylinder mount.	480020JJDZ06	1	
7	B cylinder push block.	480020JJDZ07	2	
8	<b>B</b> left shear foot cylinder mount.	480020JJDZ08	1	
9	B400W motor.	480020JJDZ09	1	
10	B base motor base plate.	480020JJDZ10	1	
11	B bottom shear foot cam.	480020JJDZ11	1	
12	B bottom shear foot eccentric wheel.	480020JJDZ12	1	
13	B connection.	480020JJDZ13	1	
14	B bottom slide SRS9XGM.	480020JJDZ14	2	
15	B bottom slide SRS9XGM.	480020JJDZ15	2	
16	<b>B</b> bottom flange bearing LMF 16M.	480020JJDZ16	2	
17	B bottom 16 light shaft.	480020JJDZ17	2	
18	B bottom 6 round bar.	480020JJDZ18	1	
19	B bottom induction piece.	480020JJDZ19	1	
20	BSX671 inductor .	480020JJDZ20	1	
21	B shear foot limit ring AA.	480020JJDZ21	2	
22	B Spring AA.	480020JJDZ22	2	



23	<b>B</b> Bearing 606	480020JJDZ23	1		

Exploded view of shear foot base screw



Shear foot base screw material breakdown

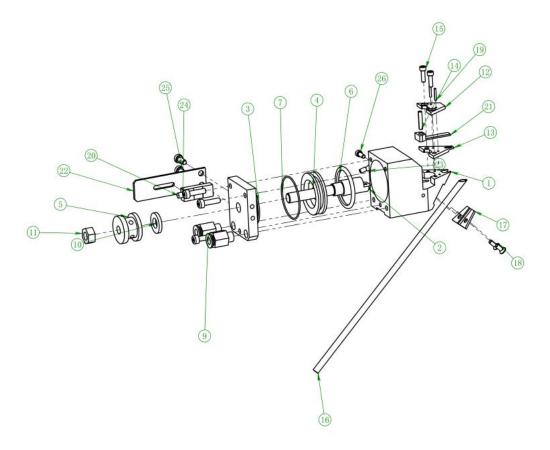


Item	Part No.	Description	Quantity	Remark
No.	Tart No.	Description	Qualitity	Кешатк
1	B base frame.	480020JJDZSG01	1	
2	B shear foot slide 20015.	480020JJDZSG02	1	
3	B slider 2.	480020JJDZSG03	2	
4	Bright shear foot guide mount .	480020JJDZSG04	1	
5	B left shear foot rail mount.	480020JJDZSG05	1	
6	Bleft and right shear screw.	480020JJDZSG06	1	
7	Bleft and right-handed nut.	480020JJDZSG07	2	
8	B left and right-hand screw nuts.	480020JJDZSG08	2	
	plain washers product grade c gb	480020JJDZSG09	2	
10	B bearing 6200.	480020JJDZSG10	1	
11	B-bearing 5200z.	480020JJDZSG11	1	
12	Bleft and right screw bearing cover.	480020JJDZSG12	2	
13	B Base mounting plate.	480020JJDZSG13	1	
14	Base motor dust cover	480020JJDZSG14	1	
15	Bupper head width drive lever.	480020JJDZSG15	1	
16	6000 Bearing .	480020JJDZSG16	1	
17	<b>B</b> coupling(108) .	480020JJDZSG17	1	
18	BIST support seat 03.	480020JJDZSG18	1	

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#### Exploded view of the left shear foot cylinder combination



### Left shear foot cylinder combination material breakdown

Item No.	Part No.	Description	Quantity	Remark
1	Shear foot cylinder body	480020ZJJ01	1	
2	Piston rod	480020ZJJ02	1	
3	Shear foot cylinder head	480020ZJJ03	1	
4	Piston	480020ZJJ04	1	
5	Piston rod limit nut	480020ZJJ05	1	
6	Sealing ring <b>31.51.8</b>	480020ZJJ06	1	
7	Seal 283.5	480020ZJJ07	1	
8	Seal 52	480020ZJJ08	1	
9	Shear foot steam	480020ZJJ09	2	

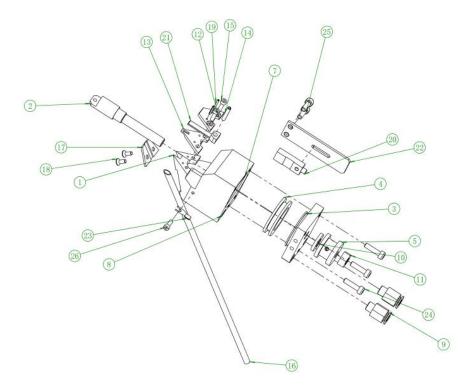


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	pipe fitting			
10	Shear foot Urethane ring	480020ZJJ10	1	
11	Stainless steel M8 nut	480020ZJJ11	1	
12	Triangular blade cover	480020ZJJ12	1	
13	Triangular cutter	480020ZJJ13	1	
14	Movable knife pin	480020ZJJ14	1	
15	M3 screw x 10	480020ZJJ15	2	
16	Push tube	480020ZJJ16	1	
17	Pusher tube pressure block	480020ZJJ17	1	
18	M3 screw X5	480020ZJJ18	2	
19	movable knife pin A	480020ZJJ19	2	
20	Fiber optic sensor (TL W3MC1)	480020ZJJ20	1	
21	Right movable knife	480020ZJJ21	1	
22	Scissor foot sensor mounting piece	480020ZJJ22	1	
23	Wire plug	480020ZJJ23	1	
24	M4X15	480020ZJJ24	3	
25	M4X10 screw	480020ZJJ25	2	
26	M3 screw x8	480020ZJJ26	1	



### Exploded view of the right shear foot cylinder combination



### Right shear foot cylinder combination material breakdown

Item No.	Part No.	Description	Quantity	Remark
1	Shear foot cylinder body	480020ZJJQG01	1	
2	Piston rod	480020ZJJQG02	1	

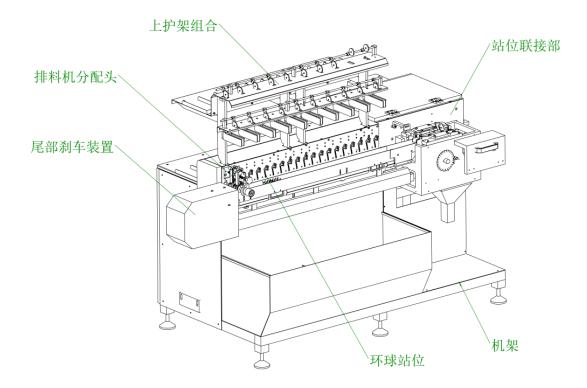




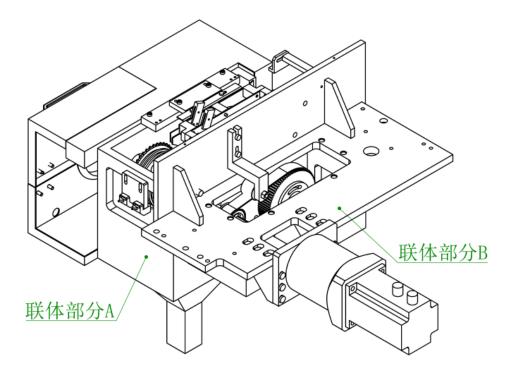
26 M3 screw x8 480020ZJJQG26	1	
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20 Station mechanism annotated diagram



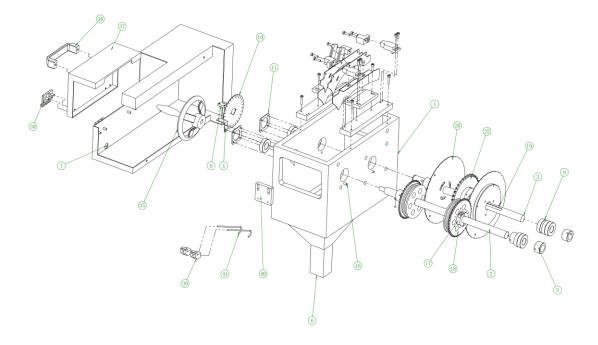


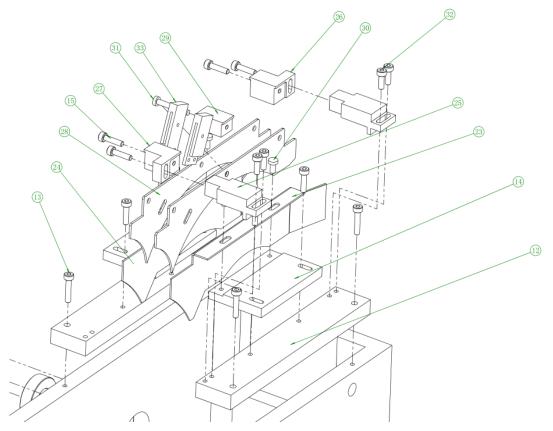
### Schematic diagram of the coupling part





### Exploded view of joint part A







Joint	part	А	material	detail
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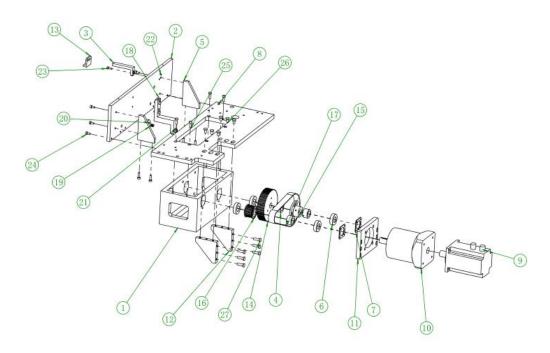
Item	Part No.	Description	Quantity	Remark
No.				
1	Casting 2	480020LJBFA01	1	
2	Active sprocket shaft	480020LJBFA02	1	
3	Slave sprocket shaft	480020LJBFA03	1	
4	H-axis sensor mount	480020LJBFA04	1	
5	Limit ring 22	480020LJBFA05	6	
6	Waste foot funnel	480020LJBFA06	1	
7	Joint mechanism front cover plate	480020LJBFA07	1	
8	SX670	480020LJBFA08	1	
9	Bearing 6022	480020LJBFA09	7	
10	27 teeth inspection disc	480020LJBFA10	1	
11	Bearing cover 1	480020LJBFA11	2	
12	Pressing plate holder	480020LJBFA12	2	
13	M5X25 screw	480020LJBFA13	4	
14	Retainer mounting block	480020LJBFA14	2	
15	M5X20 screw	480020LJBFA15	8	
16	Pin (diameter 6, length 20)	480020LJBFA16	2	
17	Semi-circular clamping ring	480020LJBFA17	2	
18	40 teeth sprocket	480020LJBFA18	2	
19	Receiving wheel pressure plate	480020LJBFA19	2	
20	Receiving wheel	480020LJBFA20	2	
21	Key Strip (6X6)	480020LJBFA21	1	
22	36 teeth sprocket	480020LJBFA22	1	
23	Right retainer	480020LJBFA23	1	
24	Left stopper	480020LJBFA24	1	



25	Spacer	480020LJBFA25	2	
26	Left mounting plate for press sheet	480020LJBFA26	1	
27	Pressing plate right mounting plate	480020LJBFA27	1	
28	Arch press plate	480020LJBFA28	2	
29	Spacer block	480020LJBFA29	1	
30	M5X10	480020LJBFA30	4	
31	M5X35	480020LJBFA31	1	
32	M5X15 screws	480020LJBFA32	4	
33	Brush mounting block	480020LJBFA33	2	
34	M5X8	480020LJBFA34	4	
35	Novice wheel	480020LJBFA35	1	
36	Door pull	480020LJBFA36	1	
37	Hand wheel stopper	480020LJBFA37	1	
38	Hinge	480020LJBFA38	4	
39	Fixed block	480020LJBFA39	2	
40	Fixed block AA	480020LJBFA40	1	
41	Hook	480020LJBFA41	2	

Joint Part B Exploded View





Joint part B material breakdown

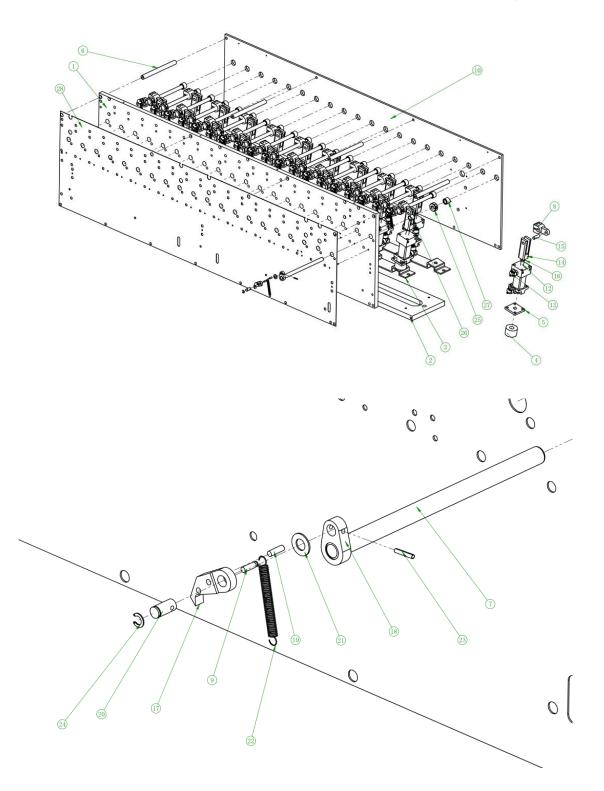
Item No.	Part No.	Description	Quantity	Description
1	Casting 1	480020LJBFB01	1	
2	Coupling panel	480020LJBFB02	1	
3	Sensor mounting mechanism 1	480020LJBFB03	1	
4	Limit ring 22	480020LJBFB04	3	
5	Triangular support block	480020LJBFB05	2	
6	Bearing 6022	480020LJBFB06	4	
7	Bearing cover 1	480020LJBFB07	2	
8	Connecting base plate	480020LJBFB08	1	
9	Panasonic 1500W motor	480020LJBFB09	1	
10	1.5KW Reducer	480020LJBFB10	1	
11	Coupling motor	480020LJBFB11	1	



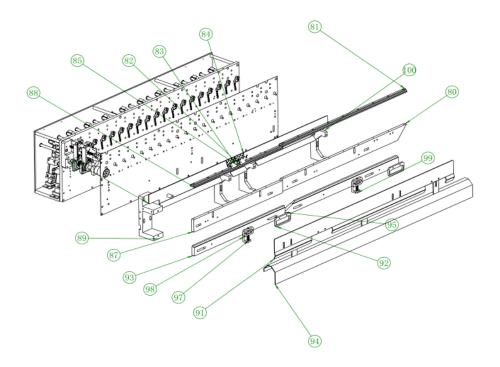
	mounting plate	<u>5205257, 177.075525270752</u>		
12	Coupling motor reinforcement	480020LJBFB12	2	
13	Overfeed induction mount	480020LJBFB13	1	
14	Slave Timing Wheel (HTD5 81)	480020LJBFB14	1	
15	Synchronizer Wheel Mounting Block	480020LJBFB15	1	
16	Active synchronous wheel (HTD5 30)	480020LJBFB16	1	
17	Belt HTD6005M	480020LJBFB17	1	
18	Belt pressure pulley fixing block	480020LJBFB18	1	
19	Belt pressure pulley	480020LJBFB19	1	
20	CR12 bearing	480020LJBFB20	1	
21	CR12 Nut	480020LJBFB21	1	
22	M4X12	480020LJBFB22	1	
23	M5X15 screws	480020LJBFB23	1	
24	M6X12	480020LJBFB24	6	
25	M6X20	480020LJBFB25	12	
26	M8X12	480020LJBFB26	6	
27	M8X25	480020LJBFB27	6	

Exploded view of the global station









### Global station material breakdown

Item No.	Part No.	Description	Quantity	Remark
NO.				
1	Station front sealing	480020HQZW01	1	
	plate 2016.			
2	Station lower base plate2016.	480020HQZW02	1	
3	Curved rail2016.	480020HQZW03	2	
4	Rubber gasket2016.	480020HQZW04	20	
5	Cylinder gasket2016.	480020HQZW05	20	
6	Station plate connecting shaft2016.	480020HQZW06	4	
7	Rotating bar2016.	480020HQZW07	20	
8	Air cylinder connecting block 12016.	480020HQZW08	20	
9	Spring clip 2016.	480020HQZW09	40	



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10	Standing rear sealing plate2016.	480020HQZW10	1	
11	Air cylinder2016.	480020HQZW11	20	
12	Standing cylinder shaft 2016.	480020HQZW12	20	
13	Steam pipe joint2016.	480020HQZW13	40	
14	Cylinder connection block2016.	480020HQZW14	20	
15	Cylinder connecting pin2016.	480020HQZW15	20	
16	Stainless steel M8 nut2016.	480020HQZW16	20	
17	Ratchet 2016.	480020HQZW17	20	
18	Ratchet connecting block2016.	480020HQZW18	20	
19	Rotary positioning pin2016.	480020HQZW19	20	
20	Detent connecting pin2016.	480020HQZW20	20	
21	Ratchet connection gasket 2016.	480020HQZW21	20	
22	S spring 12016.	480020HQZW22	20	
23	Hollow pin(diameter 2.35,length 12) 2016.	480020HQZW23	20	
24	External circlip spring (diameter 5) 2016.	480020HQZW24	20	
25	9.5 Holding ring2016.	480020HQZW25	20	
26	Copper bushing (inner 9.5 outer 12.75) 20 16.	480020HQZW26	40	
27	Copper bushing fixed ring 2016.	480020HQZW27	20	
28	IST station rear stainless steel plate2016.	480020HQZW28	1	
29	Station front sealing plate 3042016.	480020HQZW29	1	
30	Distribution head body2016.	480020HQZW30	1	



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31	Right swivel sleeve 2016.	480020HQZW31	1		
32	Right positioning block2016.	480020HQZW32	1		
33	Cutting knife2016.	480020HQZW33	2		
34	Turning sleeve 12016.	480020HQZW34	2		
35	Wave washer 2016.	480020HQZW35	2		
36	Sai steel washer2016.	480020HQZW36	2		
37	Right cutter stopper2016.	480020HQZW37	1		
38	Spring mounting piece washer2016.	480020HQZW38	2		
39	Right spring mounting tab 2016.	480020HQZW39	1		
40	Tension spring 2016.	480020HQZW40	2		
41	Turning sleeve pin 2016.	480020HQZW41	3		
42	Spring mounting pins2016.	480020HQZW42	2		
43	Hollow pin(diameter 2.35,length 12).	480020HQZW43	2		
44	Hollow pin(diameter 2.35,length 9.5) 2016.	480020HQZW44	2		
45	Hollow pin(diameter 3.15,length 16) 2016.	480020HQZW45	4		
46	Snap spring 17.52016.	480020HQZW46	2		
47	Blade <b>A2016.</b>	480020HQZW47	1		
48	Pressing piece2016.	480020HQZW48	2		
49	Left cutter stopper 2016.	480020HQZW49	1		
50	Left positioning block2016.	480020HQZW50	1		
51	Left turning sleeve2016.	480020HQZW51	1		
52	Left spring mounting piece 2016.	480020HQZW52	1		
53	Blade <b>B2016</b> .	480020HQZW53	]		
54	Discharge gear 2016.	480020HQZW54	1		



		3237; FAX:075523240492 website		11
55	Swivel handle2016.	480020HQZW55		
56	Guide bar2016.	480020HQZW56	1	
57	Handle fixing pressure block2016.	480020HQZW57	1	
58	Handle mounting spacer2016.	480020HQZW58	2	
59	Handle mounting spring2016.	480020HQZW59	1	
60	Rotary drive pin2016.	480020HQZW60	3	
61	Copper bushing(outer 8, inner 6.35, length 9.4)2016.	480020HQZW61	1	
62	Inch screw2016.	480020HQZW62	1	
63	Trapezoidal pin2016.	480020HQZW63	1	
64	Copper bush(15 outside,12 inside,75,12.5 long)2016.	480020HQZW64	2	
65	Needle roller bearing RC 0812082016.	480020HQZW65	1	
66	Distribution head locating pins2016.	480020HQZW66	1	
67	Inch screw22016.	480020HQZW67	2	
68	M4 screw gasket 2016.	480020HQZW68	2	
69	M4 screw spring spacer2016.	480020HQZW69	2	
70	Handle positioning pins2016.	480020HQZW70	1	
71	Inch screw 32016.	480020HQZW71	1	
72	Gear spacer 2016.	480020HQZW72	1	
73	Sealing ring2016.	480020HQZW73	2	
74	Left overfeed cleat 2016.	480020HQZW74	1	
75	Right overfeed clamp 2016.	480020HQZW75	1	
76	Right fixing seat 2016.	480020HQZW76	1	
77	Left and right screw 2016.	480020HQZW77	1	



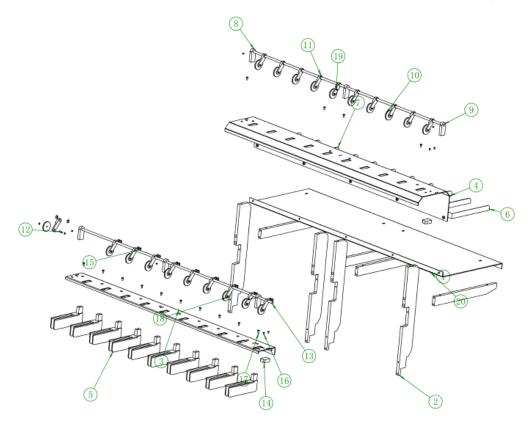
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78	Left and right screw	480020HQZW78	1	
79	handle2016. External snap spring (diameter 5) .	480020HQZW79	2	
80	Front rail mounting plate 2016.	480020HQZW80	1	
81	Front sai steel guide bar 1 2016.	480020HQZW81	1	
82	Chain piece 2016.	480020HQZW82	6	
83	Chain wheel2016.	480020HQZW83	2	
84	Overfeed stopper2016.	480020HQZW84	4	
85	Chain pin2016.	480020HQZW85	2	
86	Washer 2016.	480020HQZW86	2	
87	Rear rail mounting plate A2016.	480020HQZW87	1	
88	Rear Segang guide bar2016.	480020HQZW88	1	
89	Tail sprocket fixing casting2016.	480020HQZW89	1	
90	Rear stopper 2016.	480020HQZW90	1	
91	Front stopper 2016.	480020HQZW91	1	
92	Puller 2016.	480020HQZW92	2	
93	Rear lower chain guide plate (2016.	480020HQZW93	1	
94	Lower chain stopper plate 12016.	480020HQZW94	1	
95	Front lower chain guide plate 2016.	480020HQZW95	1	
96	Locking block spring 2016.	480020HQZW96	2	
97	Guide rail locking block 2016.	480020HQZW97	2	
98	Front bezel fixing plate2016.	480020HQZW98	2	
99	Spring pin2016.	480020HQZW99	2	
100	Tail sprocket fixed casting.	480020HQZW100	3	



Exploded view of the upper bracket assembly





### Upper frame combination material breakdown

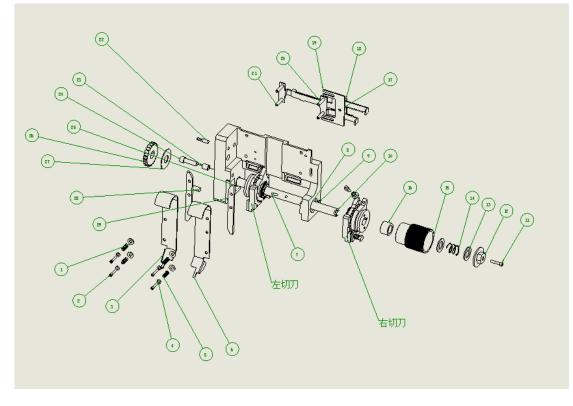
Item No.	Part No.	Description	Quantity	Remarks
1	Canopy vertical plate	480020SHJ01	4	
2	Canopy plate 1	480020SHJ02	4	
3	Sheet metal 2	480020SHJ03	1	
4	Sheet metal 3	480020SHJ04	1	
5	PCB material	480020SHJ05	10	
6	Station to fill the empty board hoardings	480020SHJ06	1	
	Standing empty board partition	480020SHJ07	9	
8	Detection rod fixed seat	480020SHJ08	6	



9	Upper overfeed detection rod	480020SHJ09	1	
10	Sensor Retaining Wheel	480020SHJ10	20	
11	Sensor Retainer Wheel Holder	480020SHJ11	20	
12	Sensor Retainer Pin	480020SHJ12	20	
13	Lower Overfeed Detection Lever	480020SHJ13	1	
14	Infrared sensor (E3ZT61 L)	480020SHJ14	2	
15	E-type external snap spring (diameter 6.5)	480020SHJ15	40	
16	Flat head screws M3X5	480020SHJ16	4	
17	Flat head screws M4X8	480020SHJ17	14	
18	Etype outer snap spring(diameter 3.5)	480020SHJ18	20	
19	Kimi Screw M4X5	480020SHJ19	6	
20	Sheet metal 1	480020SHJ20	1	

### Exploded view of discharging machine distribution head





Discharging machine distribution head material breakdown

Item No.	Part No.	Description	Quantity	Remark
1	M4 screw gasket	480020FPT01	6	
2	Inch Screws 1	480020FPT02	4	
3	Left overfeed rail piece	480020FPT03	1	
4	M3 screw spacer	480020FPT04	4	
5	Overfeed rail mounting spring	480020FPT05	4	
6	Right overfeed rail piece	480020FPT06	1	
7	Rotary drive pin	480020FPT07	3	
8	Brass bushing (outside 15, inside 12,75, length 12.5)	480020FPT08	2	
9	Handle locating pins	480020FPT09	1	

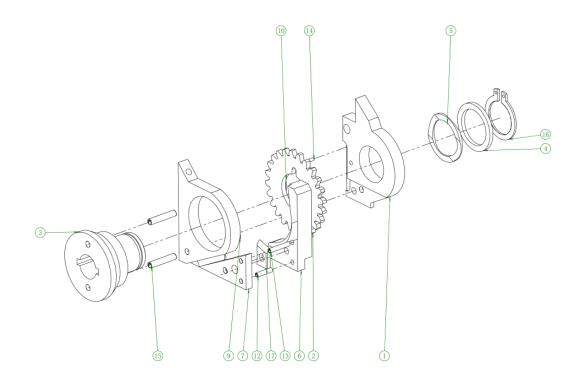


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10	Guide Rod	480020FPT10	1	
11	Inch Screw 3	480020FPT11	1	
12	Handle retaining pressure block	480020FPT12	1	
13	Handle Mounting Spacer	480020FPT13	2	
14	Handle Mounting Spring	480020FPT14	1	
15	Swinghandle	480020FPT15	1	
16	Needle roller bearing RC081208	480020FPT16	1	
17	10 Gear 1	480020FPT17	1	
18	Width adjusting wheel fixing piece	480020FPT18	1	
19	Width adjusting fixing piece	480020FPT19	1	
20	Width adjusting rack 1	480020FPT20	1	
21	Downfeed width adjustment rack 2	480020FPT21	1	
22	Trapezoidal Pin	480020FPT22	1	
23	Brass bushing (outer 8,inner <b>6.35,length</b> 9.4 )	480020FPT23	1	
24	Inch screw	480020FPT24	1	
25	Overfeed rail spacer	480020FPT25	2	
26	Lowering gear	480020FPT26	1	
27	Gear spacer	480020FPT27	1	
28	Distribution head locating pins	480020FPT28	1	
29	Dispense head body	480020FPT29	1	



### Exploded view of the left cutter unit



#### Left cutter unit material breakdown

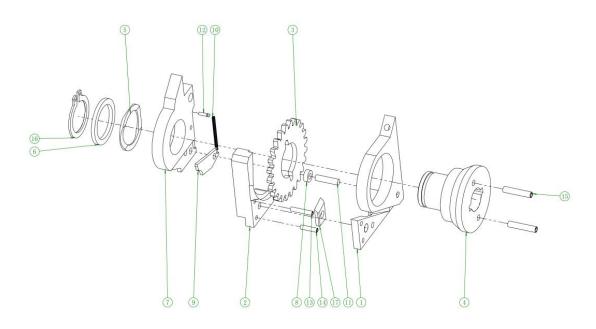
Item No.	Part No.	Description	Quantity	Description
1	Left cutter stopper	480020ZQD01	1	



2	Cutter	480020ZQD02	1	
3	Turning sleeve 1	480020ZQD03	1	
4	Sail Steel Washer	480020ZQD04	1	
5	Wave washer	480020ZQD05	1	
6	Left positioning block	480020ZQD06	1	
7	Left turning sleeve	480020ZQD07	1	
8	Left spring mounting tab	480020ZQD08	1	
9	Spring Mounting Tab Washer	480020ZQD09	1	
10	Tension spring	480020ZQD10	1	
11	Swivel pin	480020ZQD11	2	
12	Hollow pin(diameter 2.35,length 9.5)	480020ZQD12	1	
13	Hollow pin (diameter 2.35,length 12)	480020ZQD13	1	
14	Spring mounting pins	480020ZQD14	1	
15	Hollow pin (diameter 3.15,length 16)	480020ZQD15	2	
16	Clip spring 17.5	480020ZQD16	1	
17	Blade A	480020ZQD17	1	

Exploded view of the right cutter unit





### Right cutter device material breakdown

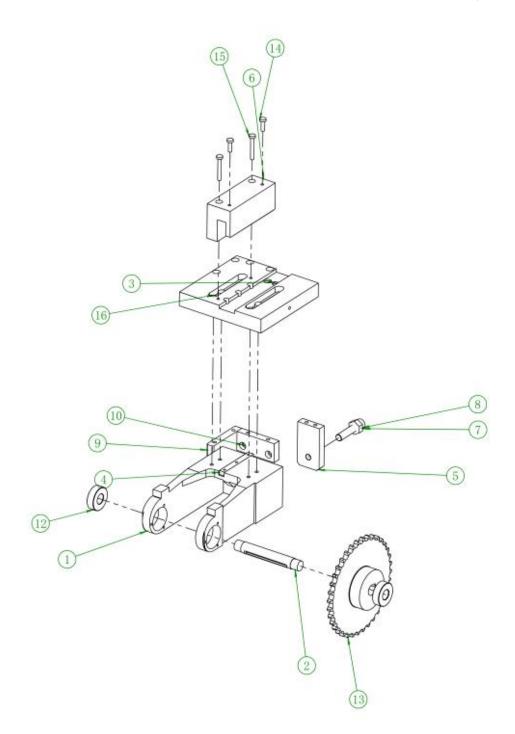
Item No.	Part No.	Description	Quantity	Remark
1	Right turn set	480020YQD01	1	
2	Right positioning block	480020YQD02	1	
3	Cutter	480020YQD03	1	
4	Turning sleeve 1	480020YQD04	1	
5	Wave washer	480020YQD05	1	
6	Steel washer	480020YQD06	1	
7	Right cutter stopper	480020YQD07	1	
8	Spring mounting tab washer	480020YQD08	1	
9	Right spring mount tab	480020YQD09	1	
10	Tension spring	480020YQD10	1	
11	Swivel pin	480020YQD11	1	
12	Spring Mounting Pins	480020YQD12	1	



	Hollow pin (diameter 2.35,length 12)	480020YQD13	1	
	Hollow pin (diameter 2.35,length 9.5)	480020YQD14	1	
	Hollow pin (diameter 3.15,length 16)	480020YQD15	2	
16	Clip spring 17.5	480020YQD16	1	
17	Blade B	480020YQD17	1	

Exploded view of the tail brake





### Tail brake unit material breakdown

Item Part No. Description Quantity Remark	
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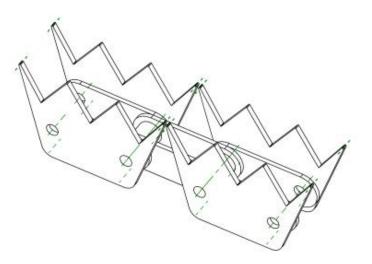
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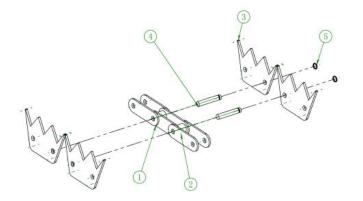
	TEL: 0755052	203237; FAX:075523240492 V		.smincip.com
No.				
1	Tail sprocket mount 2016.	480020WBZZ01	1	
2	Belt pulley connecting shaft2016.	480020WBZZ02	1	
3	Tail mounting plate2016.	480020WBZZ03	1	
4	Tail Chain Holder Positioning Block 2016.	480020WBZZ04	1	
5	Adjustment block2016.	480020WBZZ05	1	
6	Chain alignment block2016.	480020WBZZ06	1	
7	M10X45 screw2016.	480020WBZZ07	1	
8	M10 nut.	480020WBZZ08	1	
9	Tail reinforcement 12016.	480020WBZZ09	1	
10	Tail reinforcement 22016.	480020WBZZ10	1	
11	Tail chain protection cover 2016.	480020WBZZ11	1	
12	Bearing 6202.	480020WBZZ12	2	
13	Gears <b>362016</b> .	480020WBZZ13	1	
14	M5X162016.	480020WBZZ14	2	
15	M5X35.	480020WBZZ15	2	
16	M6X20.	480020WBZZ16	6	

Chain section





Exploded view of chain part



### Chain part material list

Item Part No.	Description	Quantity	Remark
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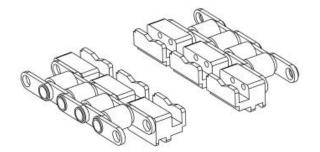


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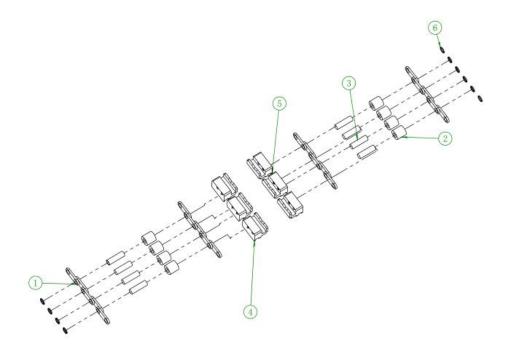
No.				
1	Chain piece 2016.	480020LTBF01	6	
2	Sprocket 2016.	480020LTBF02	2	
3	Overfeed stopper2016.	480020LTBF03	4	
4	Chain pins2016.	480020LTBF04	2	
5	Washer 2016.	480020LTBF05	2	

### Schematic diagram of the front chain section



Exploded view of front chain part





### Front chain part material breakdown

Item No.	Part No.	Description	Quantity	Remark
1	Chain piece A	480020QLT01	20	
2	Chain wheel	480020QLT02	8	
3	Chain pin A	480020QLT03	8	
4	Clamp Block	480020QLT04	3	
5	Right clamping block	480020QLT05	3	
6	Washer	480020QLT06	10	





Photoele	ectric switch		Bearing		
Serial	Name	Quantity/se	Serial	Name	Consumption
number	ivame	t	number	Ivame	/unit
1	Photoelectric switch panasonic PMK45	16		61800(W axis)	:
2	Photoelectric switch panasonic PML45	2		6000(W axis)	2
3	Optical switch panasonic CX424	5			
4	Optical switch panasonic CX411D	2		6003Z (H axis)	
5	airtac CS1G	4		608Z (centering press shaft)	:
6	OMROM TLW3MC1 (Shear foot cylinder)	2			
Cylinder				LMH10 (Base)	4
Serial number	Name	Consumption /set		606 (Base)	2
1	SMC CJ2B1015	2		5200Z with circlip (base, head)	÷
2	SMC CJP2B105D	1		5200Z (base, head)	
3	SDAS4075B	2		•	
	CDJ2B1015 Turntable				
	SDAS 4075B Lifting table				
	SC28X25 Horizontal 20 station			61805(Lifting table)	:
				61803 (lifting table)	:
				Flange LM2OUUY (lifting table)	1:
Solenoid valve			Flange LHFCD10 (lifting table)	2	
1	MAC411A	1		•	
2	SMC SY71205LZD01	2		CR12V (Bench)	
3	SMC SY31205LZD01(In-line platform)	3		CR10I(Workbench)	
4	SMC SY51205LZD02 (flyer)	30		6198(Workbench)	
	4ЈАЗ19			Platform slider SBR20UU (worktable)	8

4800 horizontal insert machine (20 stations) electrical use list

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			6202 (Workbench)	8
6	Model 5Y504F 1/4 busbar station		6901 (Workbench)	4
			6384 (J-axis)	12
Motor			6000 (J-axis)	10
Serial number	Name	Consumption /unit	605 (J-axis)	1
1	FUJI 200W motor	1		
2	FUJI 400W motor	4	6802 (18 teeth sprocket)	22
3	FUJI 750W motor	1	6901 (16-tooth sprocket)	4
4	LISAN stepper motor	2	6800 (10-tooth sprocket)	6
5	24V turntable motor (off-line)	1		
6	TG47CFU16CKA(24V motor)	3	6202(Tail)	2
			60/22Z (receiving box)	7

#### Electrica

1	
1	

1					
Serial number	Name				
1	leisai motion board card with expansion cable (68 bits)	2	Other		
2	leisai wiring board card (68 bits)	2	Serial number	Name	Usage/set
3	leisai wiring board card (37 bits)	2	3	12V power supply	1
4	68-bit board card cable	2	4	24V power supply	1
5	37-bit board card cable	3	9	Relay SV5A1R8PN (8-position)	8
6	Air combination	1			
	Filter 40A				
	Solid State Relay CDG11DA 60A				

