

# Automatic Disposable Face Mask Cutting and Welding Machine

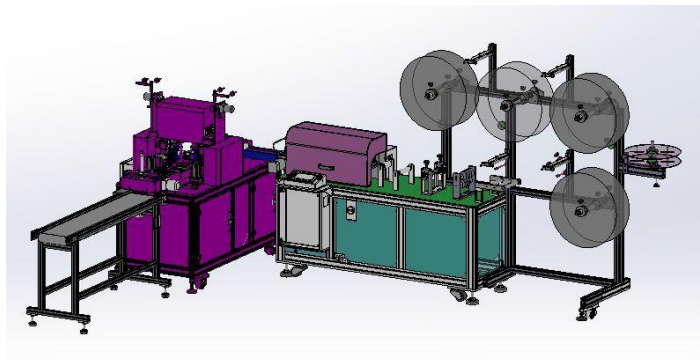
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## Automatic Disposable Face Mask Cutting and Welding Machine

### —Specification—

#### Introduction

Automatic Disposable Face Mask Cutting and Welding Machine is a full-automatic disposable mask production lines which designed on the basis of individual cutting machine and ear loop welding machine, which adopt special automatic control system, automatic transport system, separate system to combine 1 set mask cutting machine and 1 set ear loop welding machine very scientific and reasonable. One operator can run the machine very well so that can save a lot of labor, which enable the enterprise profit to achieve the maximization.



#### /Specification

(Size):	175×95mm;
(material size):	(Standard size): 200mm, 兼容幅宽 (Option size): 180mm
(Productivity):	110~120 pcs/min
(Power):	220V, 50HZ
(Air):	0.5~0.7Mpa
(Rated Power):	7 kw
Machine size):	4608×3000×2000mm;
(Machine Weight):	380KG

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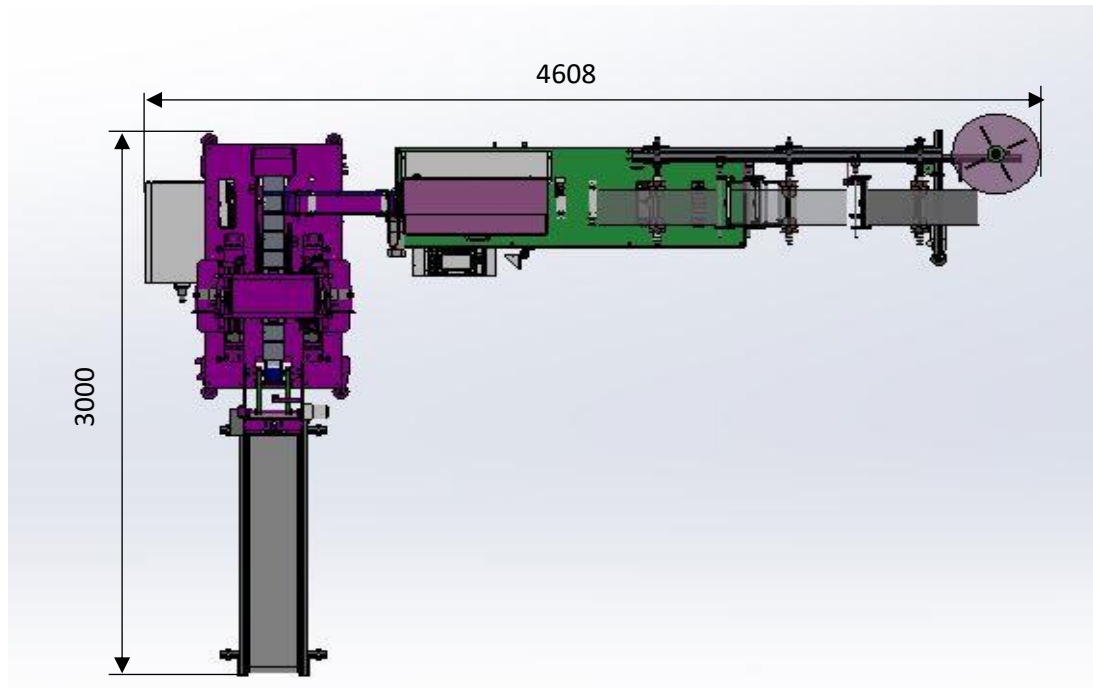
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## 三、 Machine size

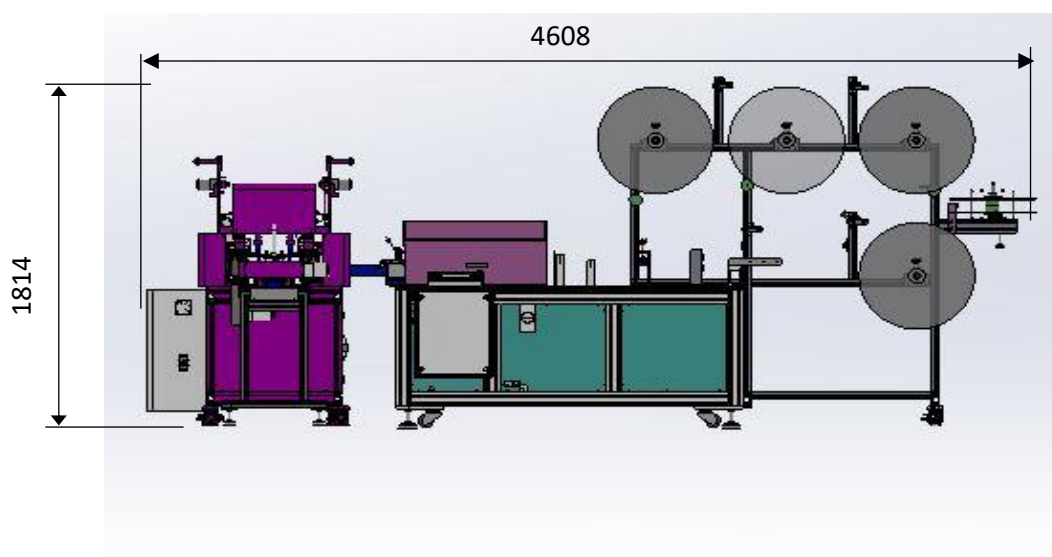
(1650mm x 1850mm x 1000mm)、(2300mm x 850mm x 1200mm) 和尾端 (1700mm x 1100mm x 1430mm)

Production line has : material hanger (1650mm x 1850mm x 1000mm) body cutting machine (2300mm x 850mm x 1200mm) , and ear loop welding machine. (1700mm x 1100mm x 1430mm)

### 3.1. Bird View



### 3.2 Side View

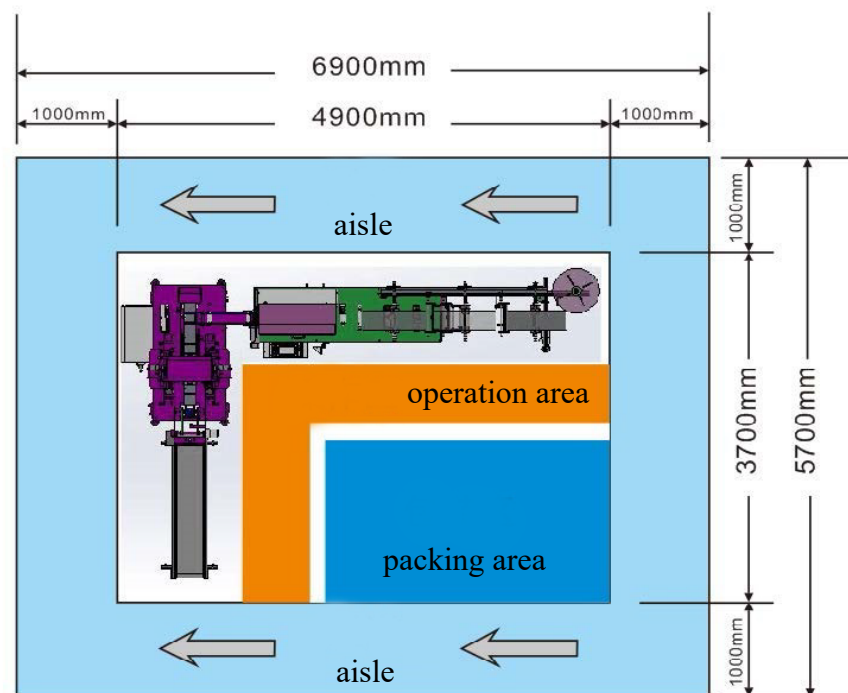


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## Area Occupation

The machine occupies 40 m<sup>2</sup> including aisle, machine area ,operation area and packing area (as below pic ).It' s better to reserve aisle ,around 1 meter width ,for maintenance and adjustment .



## Characters

With one cutting machine and one earloop welding machine ,it automatically shapes the material, threads nose-bridge,welds the earloop ,counts collection and feed separately.

1. Servo control system improves stability and lowers malfunction rate;
2. Folder feeding positions more accurately and saves cost by optimizing the material width;
3. Variable frequency enables to adjust the speed accordingly;
3. Automatic counter ,uniform product size with difference +1mm;
4. Mask pieces was feed accurately and automatically into conveyor of welding machine;
5. Ultrasonic welds four points of mask in one time accurately;

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## /Components list

### Mask Cutting Machine

Number	Name	Model	Brand	QTY
1	Relay	MY2N-GS DC24V	OMRON	2
2	Min circuit breaker	BKN C16/2P	LS	2
3	Emergency stop switch	AVW411	IDEC	1
4	Square button	AL6H-M14GC	IDEC	1
5	Square button	AL6H-M14YC	IDEC	1
6	Square button	AL6H-M14JWC	IDEC	1
7	PLC	XC5-32T-E	XINJE	1
8	Touch panel	MT6071iP	WEINVIEW	1
9	Transformer	S8FS-C15024	OMRON	1
10	AC motor	ZH750-15-S-G1-LD		1
11	Ultrasonic	20k HZ, 1500 W		1

### 6.2. /Ear Loop Machine

Number	Name	Model	Brand	QTY
1	Relay	1D4825	MGR	4
2	Relay	MY2N-GS DC24V	OMRON	1
3	servo motor driver	ASD-A2-0721-L	DELTA	1
4	Emergency switch	AVW411	IDEC	1
5	Square button	AL6H-M14GC	IDEC	1
6	Square button	AL6H-M14YC	IDEC	1
7	Toggle switch	C512B	CNTD	1
8	Power switch	S8FS-C15024	OMRON	1
9	Servo Motor	MS1H1-75B30CB-A331Z		1
10	PLC	AM402-CPU1608TN	INOVANCE	1
11	Touch panel	IT7070E	INOVANCE	1
12	Servo Motor	MS1H1-20B30CB-A331Z	INOVANCE	4
13	Servo Motor	MS1H1-40B30CB-A331Z	INOVANCE	3
14	Photoelectric sensor	CX-442	Panasonic	3
15	Ultrasonic	20k HZ, 1500 W		2

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of mask machine spare parts market is quite tight, the above configuration is subject to the actual installation.

## Consumable parts list

Item No.	Product Name	Specification	Warranty Period
1	Roller	Teeth Roller,Cutting Roller	3 month
2	Ultrasonic	20k HZ, 1500 W	3 month
3	Ear Loop Scissor		100 within 1 million times

Remark: Within the warranty period the consumable parts could be exchanged for free, but if it exceeds the warranty period to replace any consumable parts it will come with the cost for the parts and a certain charge for labor, the details refer to the content of the contract signed. Due to the affection of market trend, above price list will be adjusted, this diagram is for reference only, more details is according to the repairing technician at spot.

## Material usage advice

The traditional disposable face mask is with 3 layers, the middle layer is melt blown fabric, it is functioning as filtering. As following is the suggested usage chart

from outside to inside of the face mask		
The first layer	SS 25 : 175~180 SS grade 25gsm nonwoven cloth width:175-180	outmost layer
The second layer	99 22 : 175~180 99 grade 22gsm melt blown cloth width:175-180	
The third layer	SS 25 : 197~200 SS grade 25gsm nonwoven cloth width:197-200	inmost layer
The Ear Loop	3.00MM , , 3.00mm Ear Loop Thread, Nylon sponge, round shape thread suggested	
The Nose Pin Strip	3.0~3.5 , 0.8~1.5 Material: Plastic/Single core(iron, copper, aluminum),width: 3.0~3.5,thickness: 0.8~1.5	

Remark: Only for suggestion, the quality of the disposable face mask is most degree depending on the material used.

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## Remarks

1. 3 , 300

The main body has 12 months warranty. Warranty for ultrosonic device 3 months, and for cutting knife within 3 million PCS .

2.

The customer will be requested to check the machines at site and confirm the delivery. The inspection includes machine specification , working sustainabilities, capacity and defects rate. If the machines need new adjustment caused by improper transportation or unsuitable personal operation, our company can offer chargeable service. The extra charge can be negotiated based on latest market situation .

3.

The lift truck or crane is advised to move the machines from the machine bottom and pay high attention not to press the power cable. When the installation location is fixed, the four floor foot should be opened to avoid complete machine weight on rotary roller.

4.

Check the main power cable connection before power on the machine.

5.

Make sure the power is shut off before any adjustment or installation.

6.

In order to guarantee the sustainable running, all screws and nuts should be tightened after any adjustment

Press the safety button to protect the operator' s safe and machine from damaging if any emergency happens

8.

The adjustable screws should be greased by mechanic oil.

9.

Moving parts should be greased timely.

10.

Please operate machines according to machine application circumstance.

## Environment for equipment

1.

Temperature is normal temperature.

2. 40%-80%.

Humidity 40%-80%, no dew. Dehumidifier required if it goes out of range.  
220V; 50Hz . Power :220V, 50HZ.

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Power Fluctuation :  $\pm 5\%$ , ground wire conform to international requirement with stabilizer .If fluctuation rate goes over 5% ,it requires electrical type stabilizer.

5. installation device should have no strong electromagnetic disturbance nearby and avoids wireless station (or relay station).  
50u 0.05g  
Ground Vibration:less than 50um; Vibration acceleration :less than 0.05g.Avoid to have bunch of machine tools like punching machine ,prevent the machine space from smoke and dust and be clear from dust environment from metal polish.
6. 0.6MPa 。 Air Pressure:  $\geq 0.6\text{MPa}$ .
7.  
Anti-static floor required under some environment to strengthen shielding.

## +Regular maintenance.

1.  
Workshop should be kept clean for machine running.
2.  
Keep regular machine cleaning .
3.  
Moving parts should be greased timely.
4.  
The machine should wear cover if no working for long time.
5.  
No running for long time , the power must be shut off.

No running for long time, the easily rusting parts should be greased.

## Installation and training

The buyer will take charge of machine reception , package opening and move all unit to installation site. Necessary power and air should be ready if there is no extra written request.

2.

The supplier offer free training including machine regular operation, maintenance , error analysis and removal, and emergency process procedure.

3.

Machines exported to Korean or other area will be supported by english mail because of the travel ban during the Virus pandemic.

4.

English operation video can be offered.