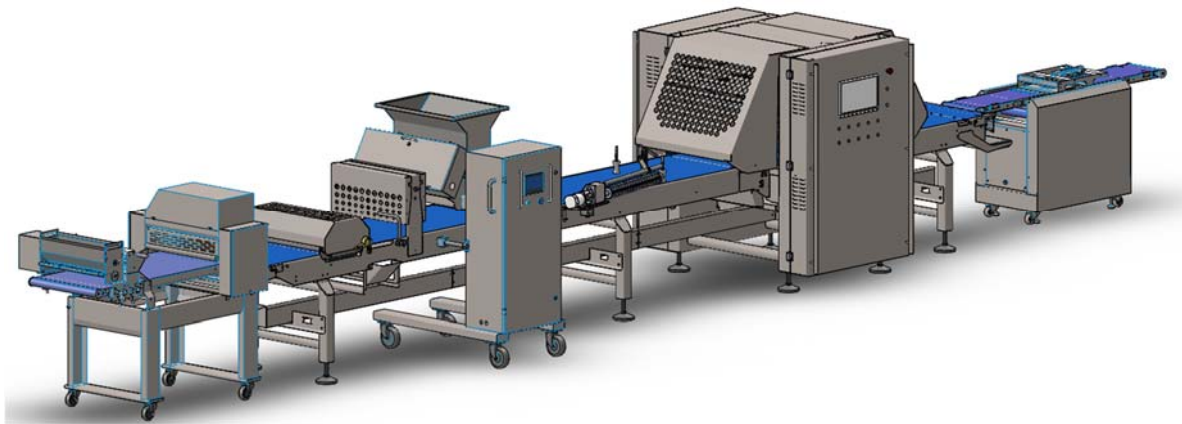




DM900-PRO-DANISH PASTRY MOLDING LINE

INSTALLATION AND OPERATING INSTRUCTIONS



VERSION-FR-DM250117

Technical specifications are subject to change without notice



General Information

Guangdong Furui Machinery Technology Co., Ltd and Freeway are not responsible for any harm or injury caused due to any person's improper or negligent use of this equipment. The product shall only be operated by someone over the age of 18, of sound mind, and not under the influence of any drugs or alcohol, who has been trained in the correct operation of this machine, and is wearing authorized, proper safety clothing. Any modification to the machine voids any warranty, and may cause harm to individuals using the machine or in the vicinity of the machine while in operation.

Before operating any equipment, always read and familiarize yourself with all operation and safety instructions.

WARNING: DO NOT DISCARD ANY PACKAGING MATERIALS IN THE ENVIRONMENT!

These instructions are intended to assist the user in familiar with the equipment and its specific use.

The instructions contain important information about how to operate the equipment safely, correctly, and most efficiently. Following these instructions will help avoid hazards, reduce repair costs and downtime, and increase the reliability and life of the equipment.

The directive manual will be supplemented by the respective country's rules and regulations for the prevention of accidents and protection of the environment.

Wherever equipment is used, it must be operated in accordance with the instructions.

Anyone who operates the equipment must read the instructions before touching the equipment, such as

- Operations, including installation, troubleshooting, the disposal of fuels, consumables and production waste.
- Maintenance
- Transportation

In addition to the instructions and the mandatory rules and regulations for accident prevention and environmental protection in the country and place where the equipment is used, the generally recognized rules for safety and proper working code must also be observed.



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1. Safety Guide.

Safety Signs and Symbols used in the instructions:













	<p style="text-align: center;">Prohibitory signs</p> <p>When you see a red and circular safety sign, it's used to highlight a potentially dangerous action or activity that cannot be performed in the vicinity of the sign.</p>
	<p style="text-align: center;">Warning signs</p> <p>Warning signs feature a triangular border and are yellow in color. They are designed to draw workers' attention to a specific hazard or dangerous situation in the nearby area.</p>
	<p style="text-align: center;">Mandatory signs</p> <p>Mandatory signs depict a specific behavior that must be followed when entering the area. These signs are circular and blue in color, using text and pictograms to provide the necessary instruction.</p>

Security check



Check the following items before production starts:



1. When the safety cover is released, the equipment must be shut down.
2. Check the integrity and functionality of safety devices.
3. Check that the potentiometer is intact and fully functional.
4. Check feed input line and plug for damage.
5. Check locking devices (gas springs, stoppers, toggle fasteners, knife brakes, etc.)
6. Keep parts in place, undamaged and fully functional
7. Defective and damaged parts must be replaced immediately by an authorized technician.







	<div data-bbox="884 309 1118 353">  WARNING </div> <div data-bbox="534 405 1485 524"> <p>During the cleaning process, be sure to turn off the main power switch of the equipment and hang a maintenance warning sign in a conspicuous place on the equipment.</p> </div> <div data-bbox="534 551 1474 624"> <p>Prevent unrelated personnel from getting access to the equipment during maintenance.</p> </div>
	<div data-bbox="884 689 1123 734">  WARNING </div> <div data-bbox="534 786 1417 824"> <p>Damaged or lost warning sign stickers must be renewed or replaced.</p> </div>
	<div data-bbox="884 929 1128 974">  WARNING </div> <div data-bbox="534 1032 930 1070"> <p>Moving parts can cause bruises.</p> </div> <div data-bbox="534 1099 1198 1137"> <p>Do not operate the equipment without safety devices.</p> </div>
	<div data-bbox="884 1198 1128 1243">  WARNING </div> <div data-bbox="534 1294 930 1332"> <p>Moving parts can cause bruises.</p> </div>
	<div data-bbox="884 1460 1128 1505">  WARNING </div> <div data-bbox="534 1563 930 1601"> <p>Moving parts can cause bruises.</p> </div> <div data-bbox="534 1619 1347 1657"> <p>Be careful about the gap between the conveyor belt and the roller.</p> </div> <div data-bbox="534 1675 1114 1713"> <p>Do not clean the equipment while it is running.</p> </div>
	<div data-bbox="884 1780 1128 1825">  WARNING </div> <div data-bbox="534 1863 1422 1937"> <p>Do not tilt the equipment more than 10 degrees during transportation and operation to avoid tipping hazard!</p> </div>







	 WARNING
	<p>It requires two people for installation and removing the kit. Prevent items from falling from high places and causing accidents.</p>

	 WARNING
	<p>This kit contains very sharp parts that can cause serious injury or even amputation. Please use the knife guard during installation, removal or transportation. Do not touch the knife edge and use appropriate protective equipment (gloves or safety shoes, etc.)</p>

	 CAUTION
	<p>The kit contains sharp parts, please do not touch them and take appropriate protective measures (gloves, safety shoes, etc.)</p>

	 CAUTION
	<p>All parts that must be lubricated and come into contact with food may only be lubricated with approved greases (LE-special fat Synt EP 2), to prevent poisoning.</p>

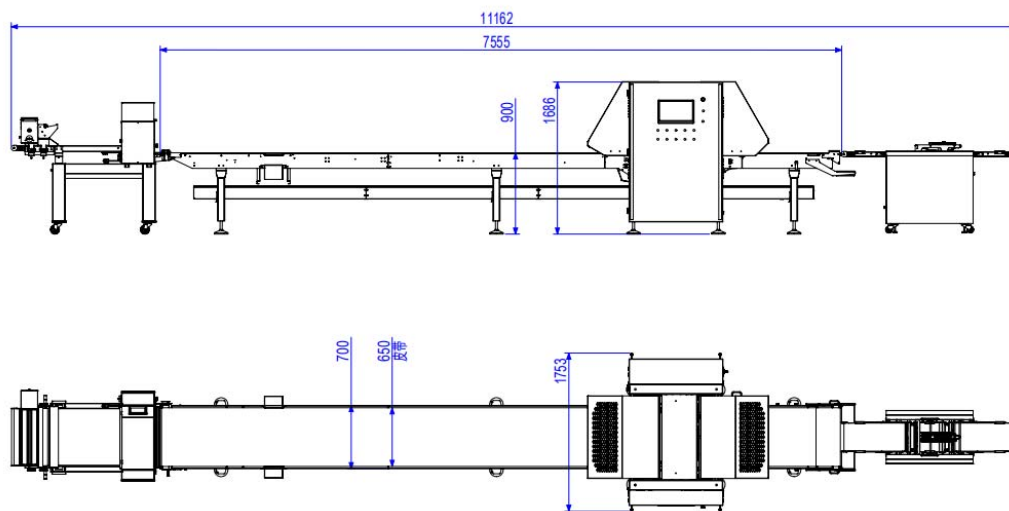
	 CAUTION
	<p>The motor runs at high temperature, be careful of burns. Do not repair or going maintenance until the equipment cool down.</p>

	 CAUTION
	<p>Do not grab components placed above or below the conveyor belt, while the roller, the rod, and the handle are in operation.</p>



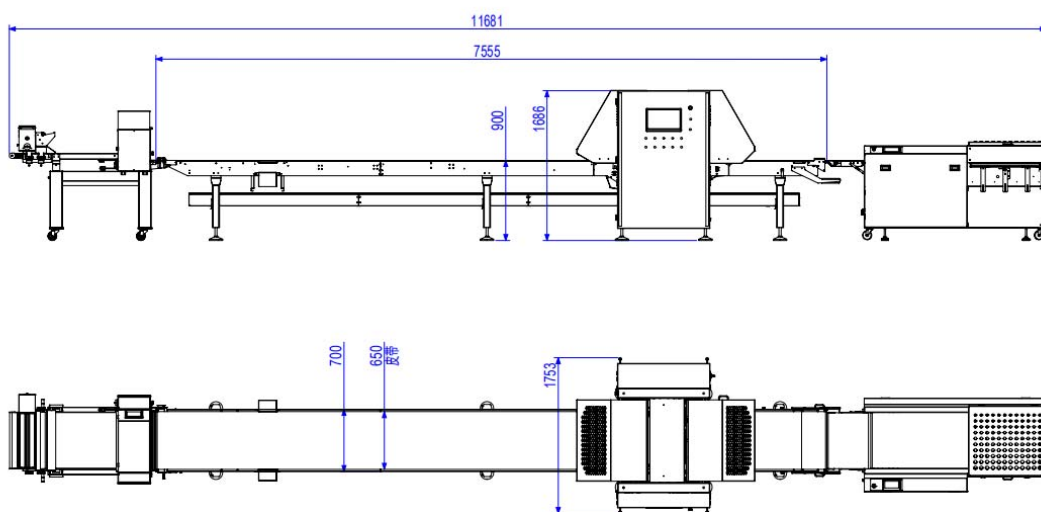
2. Equipment size and installation

2-1 Equipment frame dimensions illustration



(牛角配置尺寸表)

CROISSANT LAYOUT SIZE



(排盘配置尺寸表)

Tray Arrangement Layout Size



2-2 Technical parameters

Belt plate height..... 900mm

Belt plate width..... 700mm

Belt width..... 650mm

Number of punches by **horn**..... 25 times/minute

Number of cutting by **straight knife**..... 100
times/minute

Punch size Maximum 300 mm x 600 mm

Cutter feeding height 70 mm

Stamping surface thickness..... 20 mm

Weight of horn knife..... 20KG

Peripheral devices and accessories:

1. Upper belt plate
2. **Wire mesh printing (molding) unit** 网皮装置
3. Dough rolling bracket (snail roller)
4. Dough folding bracket
5. Dough residue recycling device

Machine Model No.	JP630 Calibrator	GX930 Filling	DM900-Pro Molding	FR-C275 Rolling	FR-BP800 Arranging
Voltage	220V	220V	380V	220V	220V
Rated power	1.2KW	2.5KW	5.4KW	3KW	2.1KW
Weight	220kg	500kg	900kg	150kg	500kg



2-3 Equipment installation

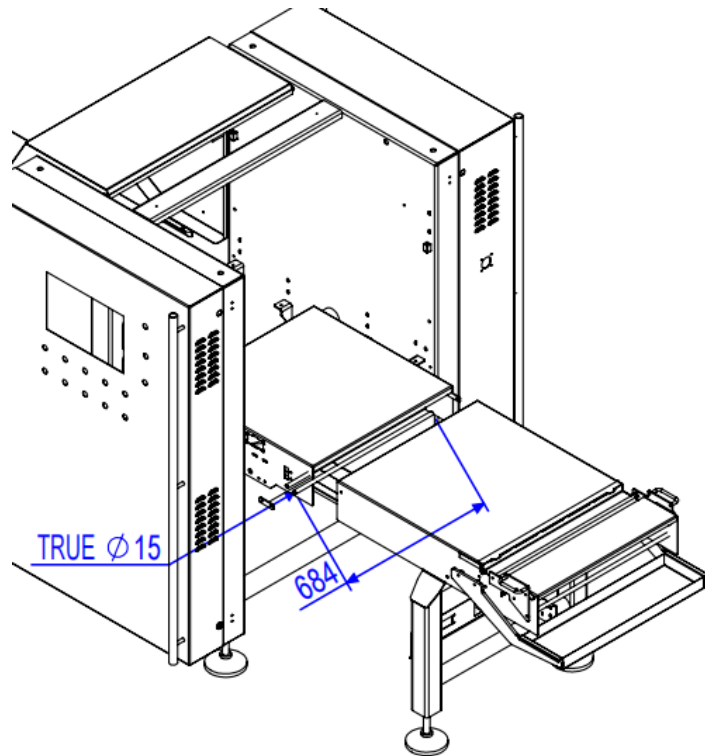


Diagram of belt plate connection and installation

When connecting one belt plate with another belt plate, it is necessary to install the fixing rod. There are 3 belt plate installation points and 6 fixing rods in total.

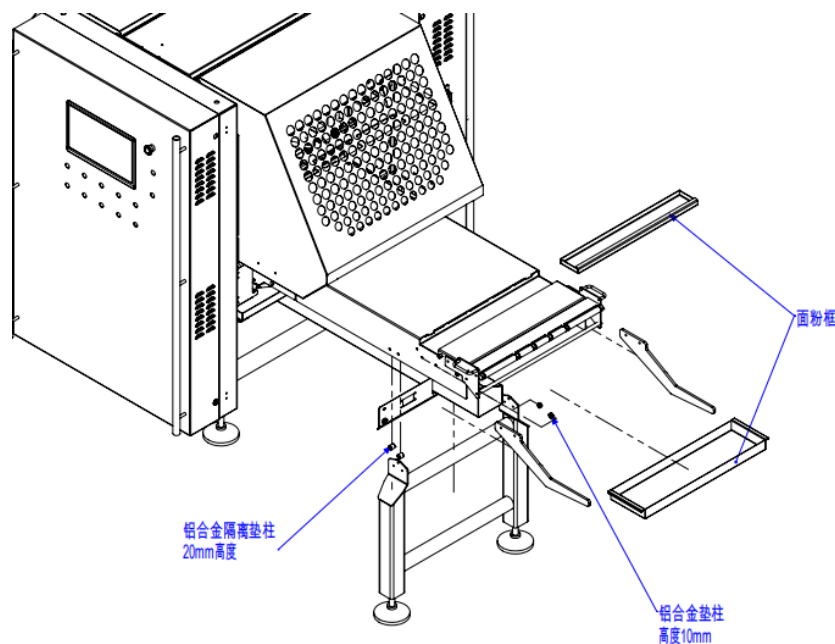


Diagram of belt dough residue clean and collection gadget

When installing the stand, add a 20mm thickness aluminum alloy isolation column.

Residue collection box: 10mm thickness aluminum alloy isolation column.

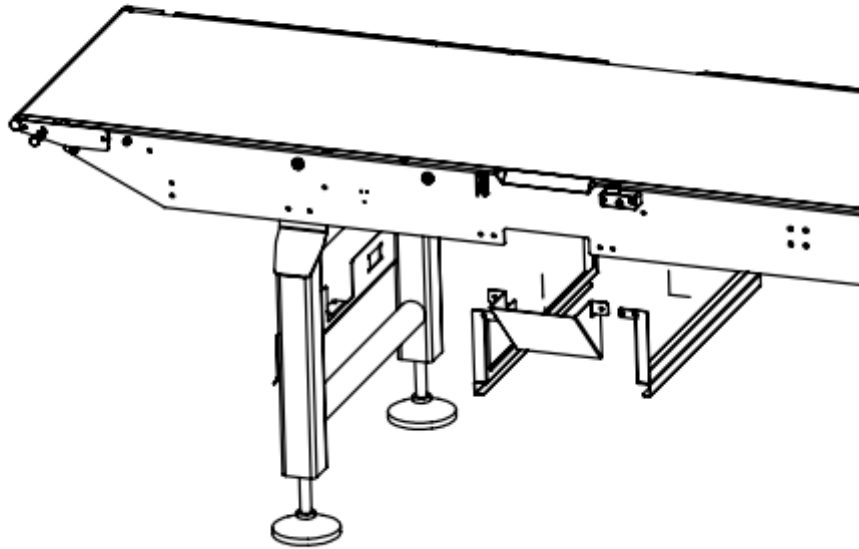
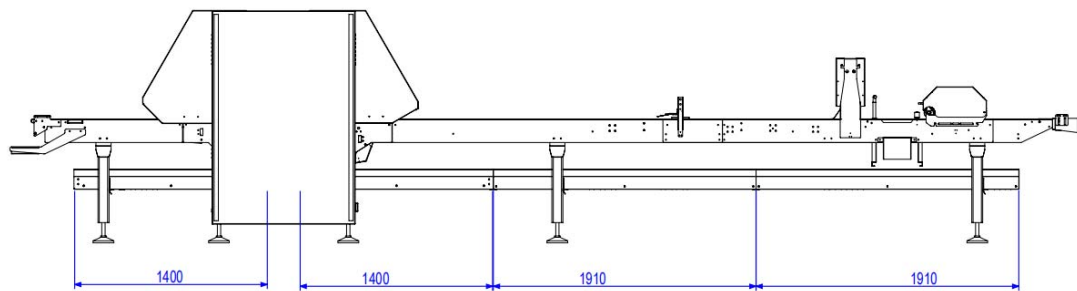


Diagram of bracket for dough residue collection box



The installation and dimensions of electrical
cable trunking (wire conduit)



3. How-to instructions

Equipment users and operators must receive training before they can take up their jobs.

Operating mode:

cutting belt rotation..... Triangle shape (Croissant etc.)

Horizontal cutting, punching..... Folding product(Pastry etc.)

Synchronous movement of punching belt.....**Wire mesh printing/molding
(Special shaped bread)**

3-1 Safe operating instructions

Things to note before operation

- (1) Please make sure that the ground wire is connected.
- (2) Please check whether there is any foreign object on the equipment.
- (3) After confirming that everything is normal, start the equipment.

Matters needing attention during equipment operation

- (1) After starting, do not put your hands into the equipment.
- (2) Non-professionals are not allowed to open the electrical switch control box.

Precautions, working conditions and environment required for normal operation of the equipment

- (1) Do not use or store in an environment with corrosive gases or smoke.
- (2) The equipment should be free from water, oil or any chemicals.
- (3) Use a stable and suitable power supply to the equipment.
- (4) Make sure the power cord is intact. If the equipment makes any abnormal noise, please cut off the power supply immediately to avoid fire or electric shock.



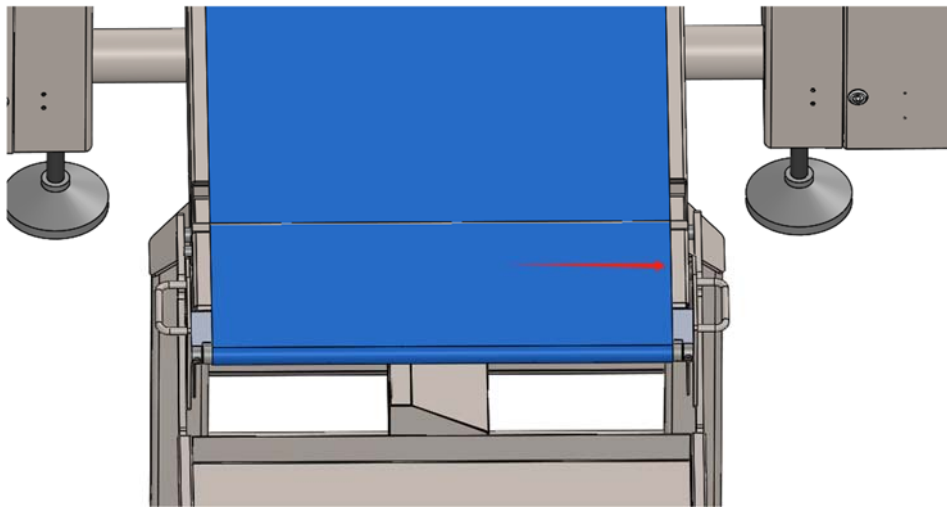
3-2 Preparation before operation

- (1) All safety guardrail and protective covers on the production line must be closed.
- (2) The production line must be fully assembled before it can be operated.
- (3) It is prohibited to operate the production line when any safety device fails.
- (4) Before operating the production line for the first time, the entire production line must be thoroughly cleaned.

3-3 How to adjust belt deviation

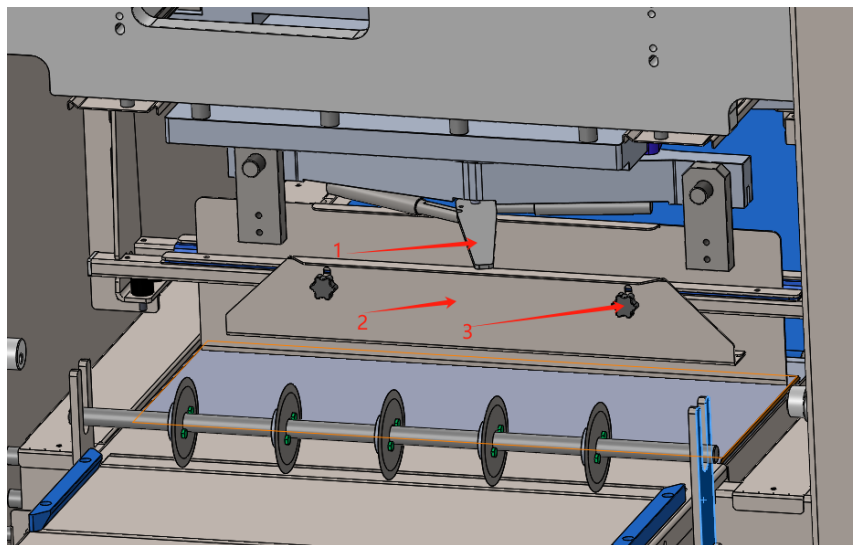


Belt deviation adjustment gadget: When the belt deviates, find the adjustment key and insert it into the round hole to adjust the deviation.



1. When the belt deviates in the direction indicated by the arrow in the picture, turn the key clockwise, and the belt will be tightened to adjust to balance.
2. When the belt deviates in the opposite direction of the arrow, you need to turn the key counterclockwise and the belt will slowly return to normal.
3. Attention: It takes enough patience to tune up the belt balance.

3-4 How to install the tool



Straight cutter installation diagram

1. When the straight cutter is installed in the fixed hole, pull the part (No.1) to the right to lock the cutter.



2. Adjust the height of the retractor plate. Unscrew the thumb screw (No. 3) to adjust the height of the retractor plate (No. 2).

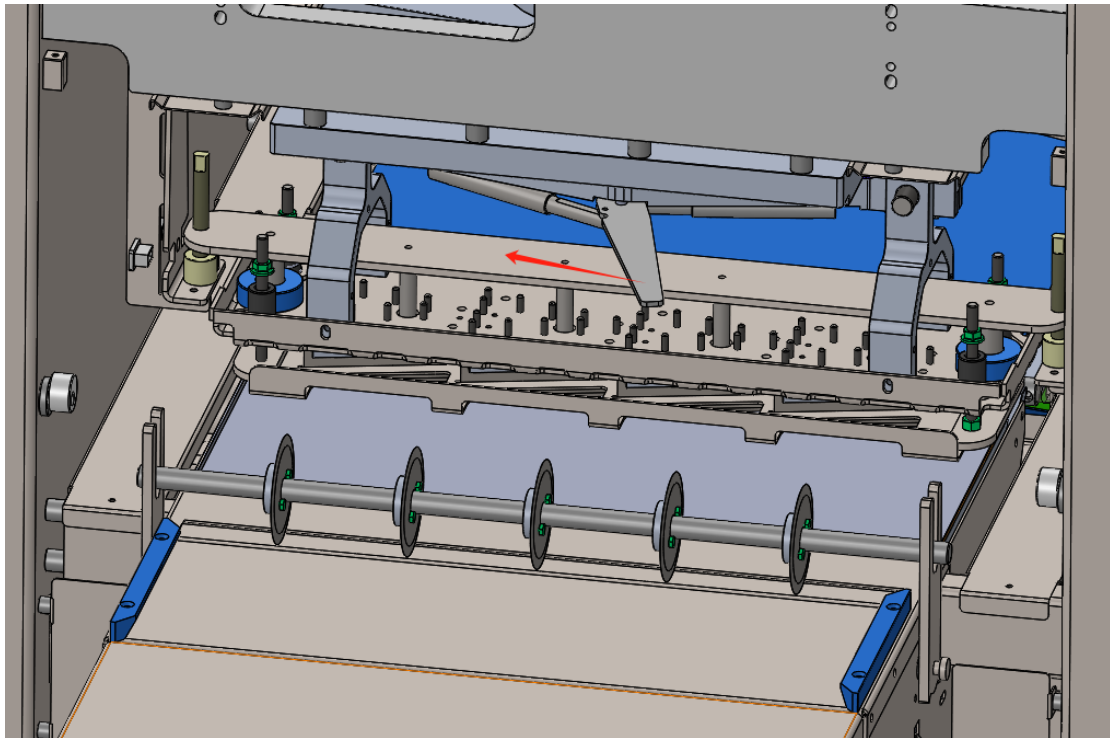


Diagram of croissant cutter Installation

1. The croissant cutter is heavy, so it is recommended that two people work together to install it to avoid damaging the cutter.
2. Align the tool with the docking post, insert it into the fixing hole, and pull the handle to the right to lock the tool.



4. Human Machine Interaction

4-1 The GUI (Graphic User Interface) and its functions

How to start and operate the equipment

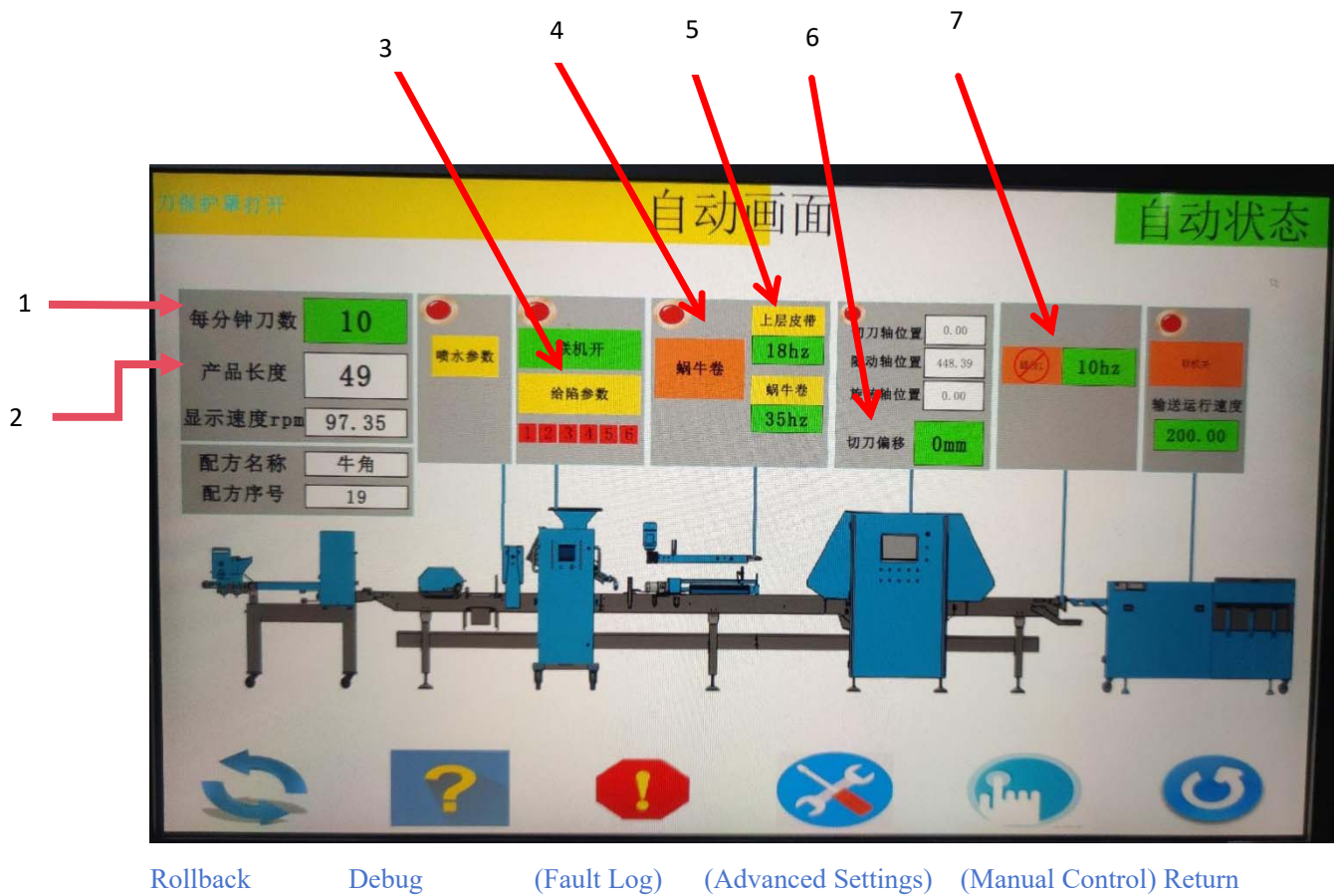
Notice!! Before starting, make sure there is no foreign matter on the belt plate, the protective cover is closed, and the emergency stop switch is functional.

(1). Turn on the power switch to enter the system home page, select the national flag to enter the parameter page (the national flag corresponds to the country's language)





(2) Parameter settings



1 Cuts per minutes: The larger the value, the faster the cutting speed.

2 Product Length: Indicates the distance between the cutters in millimeters.



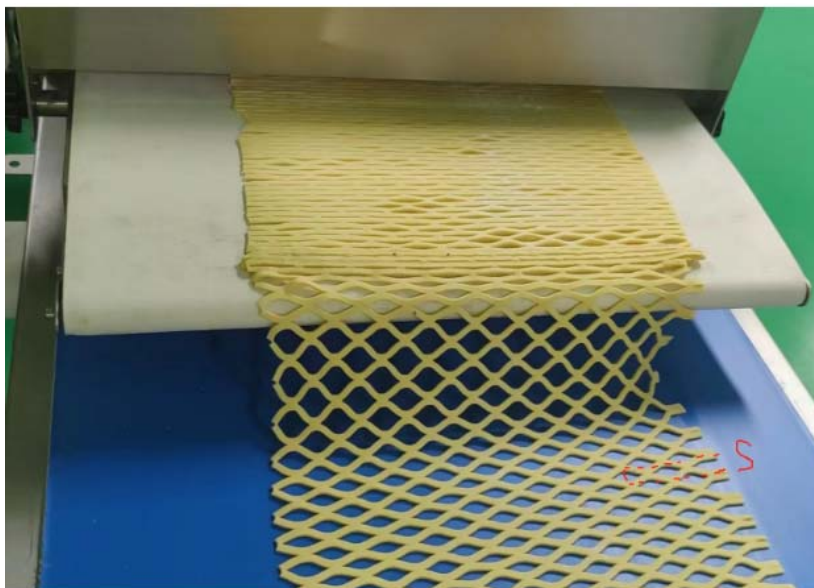
3. Filling parameters: Click to enter the page for adjusting the extrusion interval length. Filling numbers 1 to 6 are used to set the extrusion nozzle on and off. Product length = molded product length/2



4. Click “Snail Roller” (Dough rolling bracket), switch to upper belt plate function

5. Click “Upper Belt” to adjust the running speed of the upper belt. The larger the value, the faster the belt.

At wire mesh printing process, The faster the upper belt speed, the smaller the mesh distance S. The slower the upper belt speed, the larger the mesh distance S.





6. Cutter offset: It is used to solve the problem that the cutter is not between the two fillings.

When the croissant knife of the cutting machine failed to cut the filling, measure the offset between the center of the cutter and the center of the filling, get offset value T. Enter the offset amount in the operation interface, and the cutter will be offset forward by a distance T.



7. Recycle 1: Adjust the speed of dough residue recycling device

Advanced Settings (Both Administrator and Operator can enter)

Admin password: 8888

Operator password: 1234



4-2 Mechanical buttons and their functions



(Pasue)

(Reset)

(Belt On/Off)

(Calibrator On/Off)

(Sprinkler On/Off)



(Filling Start)

(Upper Belt On/Off)

(Cutter Start)

(Rolling On/Off)

(Tray Arrange On/Off)



How to start the equipment

1. Press the Reset button to reset the equipment. This process takes 2-3 minutes.
2. If there is no fault prompt on the LCD panel, press the Belt On/Off button and the belt will start running.
3. After the dough have processed by the Sheeter, put it on belt of the Calibrator. Press the flour sprinkle button on the Calibrator, it will sprinkle a layer of flour on the belt.
4. Drag the dough on the belt of Calibrator. When the dough reaches the end of Calibrator's belt, drag it to the belt of main production line.
5. When the dough is about to reach the cutting machine of DM900-PRO, press the Cutter Start button.
6. Select to press buttons of Filling Start, Tray Arrange On/Off, Rolling On/Off according to features of various products.
7. If there are any dangers or fault prompt during operation, please press the Emergency Stop button in time to avoid production accidents.



Button No. 1 is the Emergency Stop button. Press it to stop the equipment.

Button No. 2 is the Pause button. Press the button and the equipment will complete the current action and then stop running.



用户登录

用户登录

负责人

操作员

用户密码:

注销方式: ☒ 超过登录时长 ☐ 超过空闲时长

登录时长: 分钟

用户描述:

操作厂家参数

USB登录

登录

取消

参数画面

切刀01啮合点参数

主轴相位1	4.12	从轴相位1	0.00
主轴相位2	48.40	从轴相位2	360.00
主轴相位3	49.40	从轴相位3	360.00
轴间主轴偏移	0.00		

配方名称 配方保存

配方序号 配方读取

产品长度

丹麦模式

自动01啮合点参数

主轴相位1	18.00	从轴相位1	0.00
主轴相位2	31.00	从轴相位2	13.00
主轴相位3	43.00	从轴相位3	0.00
主轴相位4	49.40	从轴相位4	0.00

The loading and settings of recipe

Click Advanced Settings, select Admin, type password: 8888 to enter the parameter page

The settings of recipe

Type a name in the recipe name, such as: croissant

Type a numeric code in the recipe sequence number.

The settings of product length

For instance, the croissant dough size is 90mm (bottom length), the default input



size is $(90+10) / 2 = 50$

Each croissant tool has different parameters, and the manufacturer needs to set the product-related parameters in the system in advance.

5. Cleaning and maintenance

The cleaning of food conveyor belt

In order to ensure food hygiene and safe production, the cleaning and disinfection of conveyor belts are essential. The correct use of detergents and disinfectants to clean food conveyor belts can avoid food safety problems such as bacterial contamination. Clean food conveyor belts with detergents from reputable, qualified manufacturers that meet national standards.

1. Handling of cleaning agents and disinfectants

There are significant differences between detergents and disinfectants.

It is important to strictly follow the manufacturer's instructions regarding concentration and temperature of use.

After cleaning and disinfection, remove any disinfectant detergent residues and clean the conveyor belt thoroughly with pure water at 50 to 70 °C.

In general, disinfectants have sufficient sterilization effect at room temperature.

However, in the meat processing industry, high-temperature sterilization processes must be added.

2. The role of chlorine-containing disinfectants

Compound detergents containing fat solvents, which are also disinfectants (containing active chlorine). It needs to be used at higher temperatures (60 to 70°C) to better remove fat residues.

At high temperatures, chloride ions will severely attack the surface of TPU and cause the polymer to decompose, destroying the structure of TPU.

Therefore, it is prohibited to use compound detergents to clean TPU conveyor belts in the meat industry.



6. Troubleshooting Guide

The following checklist is a summary of common faults and their solutions, for reference only.

Faults	Possible causes	Solutions
Equipment will not start/does not work	The power is not turned on	Turn on the main power on
	The equipment fuse is blown	Replace the fuse
	The emergency stop button is pressed	After resetting the emergency stop button, reset and restart the equipment.
	Protective cover is opened	Close the equipment protective cover and restart the equipment.
	Compressed air failure	Increase air pressure (6bar)
	Dust and dirt accumulation on equipment	Thoroughly clean the equipment
Belt failure	Dough, cream or other residue accumulation on belt	Clean the belt according to the instructions in Chapter 5.
	Belt roller is dirty or damaged	Clean the belt rollers. Replace if necessary
	The belt is off track	Adjust belt tension

The tool does not run according to the preset parameters	1. Origin position sensor failure. 2. Parameters are not set properly	After pressing the emergency stop button, reset the equipment.
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