Exploring the biscuit production line

In our daily snack list, biscuits occupy an important place with their crispy texture and rich taste. But are you curious about how these small biscuits are transformed from the initial raw materials step by step into the mouth-watering delicacies on the shelves? Today, let us walk into the modern <u>biscuit production line</u> and uncover the wonderful secrets behind it.

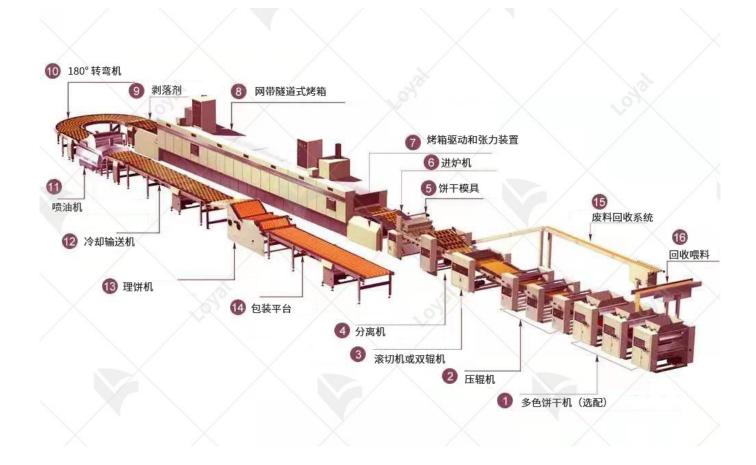
Production characteristics of different types of biscuit production line

According to different formulas and production processes, biscuits are mainly divided into two categories: tough biscuits and crisp biscuits. They have their own characteristics in the production process:

1. Tough biscuits: The ratio of sugar and oil is relatively low, generally less than 30% sugar and less than 20% oil. During production, the hot powder process is required to adjust the powder, and the dough adjustment time is relatively long to form a dough with strong toughness and extensibility. When forming, stamping or roller cutting is usually used. The stamping mold is concave and has pinholes. The surface of the biscuits produced in this way is flat and smooth, the cross-sectional structure is layered, and the taste is crispy and chewy.

2.Crisp biscuits: They are high-fat biscuits, with a large amount of oil, generally 14% - 30% of the flour. The amount of oil in some special products can be as high as about 50%. The cold powder process is used to adjust the powder, the dough adjustment time is short, the dough has strong plasticity but low toughness. The molding is mostly roller printing, the stamping mold is convex, without pinholes, and the biscuits made have obvious patterns, fine structure, and loose taste.

3.In addition, there are many types of fermented (soda) biscuits, crackers, cookies, sandwich biscuits, wafer biscuits, etc., each of which has its own unique production process and equipment requirements. For example, fermented (soda) biscuits use yeast as a loosening agent and need to go through processes such as fermentation, powder mixing, rolling, lamination, and baking; cookies are formed by extrusion, extrusion, wire cutting, etc., with high fat content, three-dimensional patterns or regular ripples on the surface.



Product Description of biscuit production line

The fully automatic biscuit making machine is a professional biscuit production equipment, which is mainly composed of a dough mixer, a compound rolling and shaping machine, an oven, an oil sprayer, a cooling machine, and a packaging machine. This type of biscuit production line offers various models, favorable factory prices, and guaranteed quality. It can produce hard biscuits, soft biscuits, soda crackers, sandwich biscuits, etc.

Production line Parameters of biscuit processing linev

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Host	LY280	LY400	LY600
Model			
Power	380V/50HZ	380V/50	380V/50HZ
and		HZ	
voltage			
Installed	55KW	110KW	220KW
Capacity			
Baking t	200-300°C	200-300°	200-300°C
emperat		С	
ure			
Producti	100kg/h	150-200K	300-500kg/h
on		g/h	
capacity			
Producti	30000cm	43000cm	60000mm
on line			
length			



Parameters for each machine of biscuit making machine

Machine Name	Parameter
Flour Mixer	Model: LYHMJ
	Power:3kw
	Voltage: Three Phase 380v/50Hz

	Materials:Support (Iron Shell), Stainless Steel (Barrel)
	Speed:26 Round/Minute
	Capacity:50kg /batch
	Dimension: 950*600*1050m m
	Machine Weight:400kg
Soft Biscuit Shaping	Function: Kneading Flour Machine Is Stirring Machine Which Crumples Up Flour Powder And Water Into Dough Or Other Materials And Is Independently Used With Other Machines. Model: 400 Type
Machine	Power: 3kw
	Dimensions: 2100* 1050 * 1250mm
	Weight: 650kg
	Material:
	(Shell, Food Contact Part)

	Stainless Steel
	(Transmission Part) Carbon Steel
	Put The Mixed Flour Into The Machine And Roll It Into Biscuits, Then Make It Into Various High-Grade Soft Biscuits In The Oven.
	It Make Soft Type Biscuit.
Hard Biscuit Shaping	Model: LY-400
Machine	Power: 2.2kw
	Dimensions: 4500*900*1800mm
	Production capacity: 150-200kg/h
	material:
	(Shell) stainless steel
	(Transmission part) carbon steel
	Motor: domestic
	Electrical appliances: People's Electrical

Feeding Oven Machine	Put the mixed dough into the machine, press the skin through three rollers, and then cut it into biscuit preforms once through the roll cutting mold, and then enter the oven to bake mid- to-high-grade tough biscuits. Model: 400 Type
	Power: Passive
	Dimensions:1000*900*760m m
	Material: Stainless Steel Housing
	Frame And Transmission Bucket Carbon Steel
	The Feeding Machine Is a Transmission Device That Connects The Formed Biscuits Or Other Baked Food To The Oven, And The Biscuits Connected To The Wire Mesh Belt Are Continuously Fed Into The Oven For Baking.?By a

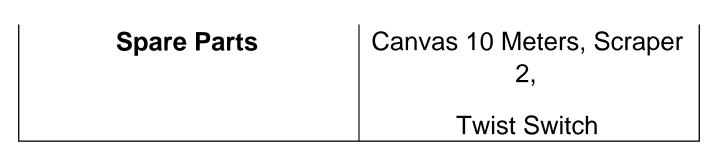
	Large Roller ?
Tunnel Belt Oven	Model: LYKX
(Electrical Type)	Power: 91.8kw
	Voltage: Three Phase 380v/50Hz
	Machine Dimension: 24000*850*1500mm
	Function: Baking All Kind Of Biscuit
	Use Electric Heating, Several Temperature Zones Control, Temperature Can Preset In Each Temperature Zone, Uniform Temperature In Each Temperature Zone, Using High-Quality Thermal Insulation Materials, Good Thermal Insulation Performance, High Thermal Efficiency, Spray Paint On The Inner Wall To Prevent Rust And High Temperature (Resistant 400 Degree)
	Features. Fully Automatic Temperature Control

	System, Automatic Temperature Control And Constant Temperature, Flexible Operation, High Safety Performance, Suitable For Baking All Kinds Of Biscuits.
Out Oven Machine	Model: 400 Type
	Power: 2.2kw
	Dimensions:
	1600*1000*860mm
	Weight: 1000kg
	Material:
	Shell Stainless Steel
	Carbon Steel For Transmission Part
	Usage: Used To Bring The Biscuits Or Other Baked Food Baked In The Oven Out Of The Oven,Then Into Oil Spray Machine, And At The Same Time, It Can Drive The Mesh Belt In The

	Furnace And Tighten The
	Mesh Belt.
Oil Spray Machine	Model: LYPY
	Power: 2.4kw
	Voltage: Three Phase 380v/50Hz
	Main Materials: Stainless Steel
	Overall Dimension:2000*700*1100m m
190°Turning Machina	Function: Spray Various Delicious And Fragrant Food Oils, Refined Oils, And Sugar Water On The Outside Of The Biscuits To Increase The Surface Brightness, Improve The Appearance, Improve The Taste Of The Biscuits, And Increase The Variety Of Colors.
180°Turning Machine	Power: 1.5kw Dimensions:
	3200×1600×800

	Frame made of carbon steel Is the housing stainless steel 304
	Wall panels on both sides are made of stainless steel
	Conveyor belt adopts PU (easy to clean, wear- resistant and not easy to deform)
Net Belt Cooling	Model: LYLQ
Conveyor(10m)	Main Materials: Stainless Steel
	Power:0.75kw
	Overall Dimension:10000*60 0*650mm
	Function: Cooling The Finished Biscuit
	Motor: Reducer (Domestic Aluminum Alloy)
Biscuit Stacking Machine	Power: 3kw
	Dimensions: 3200×900×1000mm Frame: carbon steel

	Casing: stainless steel	
Packing plate	Function: Put the sorted	
	biscuits together for easy	
	packaging	
Control Cabinet	Dimensions:	
	1500*600*1600mm	
	Weight: 100kg	
	Motor: Domestic	
	Electrical Appliances: Delixi Huibang, Etc.	
	Inverter: Pineier	
	Temperature Zone: 8 Uniform Temperature Control Effects	
	Intelligent Temperature Control Meter	
	Electric Control Cabinet Is Used To Control Temperature And Speed.	
Biscuit molds	Customer can choose the	
	pattern .	
	See Attached Blew Pictures	
	2 Sets Molds Free Charge.	





Equipment list of Biscuit production line

dough mixer- compound rolling and shaping machine-ovenoil sprayer- cooling machine-sorting machine-packaging

machine

Working Process of the Biscuit Production Line?

- 1. Dough mixing machine: Wheat flour, sugar, oil, eggs, dairy products and other raw materials are mixed here according to precise formulas to provide uniform dough for subsequent production links. During the mixing process, the temperature and time are precisely controlled to prevent the raw materials from overheating or over-mixing, ensuring the texture and taste of the dough.
- taste of the dough.
 Compound rolling and shaping machine:Common ones include punching and forming machines, roller cutting and forming machines, etc. These equipment process the dough into various shapes according to different biscuit types and shape requirements. For example, tough biscuits are often punched or rolled, and their mold shapes are mostly concave flowers with pinholes on the surface; crisp biscuits are mostly rolled, and the mold shapes are mostly convex flowers with obvious patterns. The design and adjustment of the mold are crucial in this link. Different molds can produce biscuits of various shapes and flavors, such as round, square, animal shapes, etc.
- shapes, etc. ^{3.} Oven: Tunnel hot air circulation oven is a common baking equipment. It uses precise temperature control and timing functions to bake the formed biscuits in the best condition. The baking temperature and time will

be adjusted according to the type and thickness of the biscuits to ensure that the biscuits are crispy and delicious without being overbaked. Generally speaking, the baking temperature is between 200-300?, and the time ranges from a few minutes to more than ten minutes.

4.Oil sprayer: The oil sprayer can evenly spray oil on the surface of the baked biscuits, making the biscuits more attractive in color and richer in taste.

5.Cooling machine: the cooling line is used to cool the baked biscuits to room temperature to prevent the biscuits from deforming or the packaging materials from being damaged due to excessive temperature during packaging.

6.Sorting machine :The sorting machine can sort the cooled biscuits so that they are neatly arranged for subsequent packaging.

7.Package machine:The automatic packaging machine completes the packaging of biscuits. It can realize a variety of packaging methods, such as independent packaging, multiple packaging per bag, etc. The packaging process not only improves production efficiency, but also ensures that each biscuit can be kept in the best condition and extend the shelf life of the biscuits.

Advantages of biscuit processing line

1.High degree of automation: From the automatic

proportioning and mixing of raw materials to the molding, baking, cooling, and packaging of biscuits, the entire process can be automated, greatly reducing manual operations and improving production efficiency and product quality stability. At the same time, reducing manual contact also reduces the risk of food contamination and ensures food safety.

2.Precision control: The use of advanced control systems can accurately control parameters such as temperature, time, and speed during the production process. In the baking process, the temperature of each area of the oven can be accurately adjusted according to the needs of different biscuits to ensure that the biscuits are heated evenly and achieve the best baking effect.

3.Strong flexibility: By replacing molds and adjusting process parameters, the same production line can produce biscuits of various shapes, flavors, and formulas to meet the diverse needs of the market. This enables food manufacturers to respond quickly to market changes and launch new products.

4.High efficiency and energy saving: The use of energysaving technologies and optimized production processes reduces energy consumption. For example, the oven uses efficient insulation materials and heat recovery systems to improve energy utilization and reduce production costs. 5.Hygiene and safety: The closed production environment is made of food-grade stainless steel to effectively avoid contamination and meet international food safety standards.



About Us

We are able to provide customers with solutions to meet a variety of needs, customizing equipment to produce a variety of food categories. Whether it is a product based on rice, wheat flour or starch, our equipment can meet diverse production needs. This versatility allows our customers to flexibly respond to changing market demands and gain a competitive advantage.

We are proud to serve global customers, who are not only in China, but also in Canada, the United States, South Korea, Nigeria, Zimbabwe, Afghanistan, Algeria, Ghana, India, France, the Philippines, Malaysia and Sri Lanka. Our customers include many large food companies that are leading the global food industry. The long-term partnerships we have established with our customers enable us to provide highly customized food machinery solutions.

We are professional manufactory of food machinery, snacks food machinery.

22 experienced engineers is working for us whose job is to research new machines, design for clients, commission equipments for clients.

24 Hours' service and 15 after sales service personnels help our clients to solve all the errors of our machines as soon as possible.

We mainly deal with the manufacture, research and development of the snacks food machinery. According to clients' different requirements, we could offer the whole complete processing line for all kinds of expanded snacks, 2D and 3D pellet, potato chips, corn flakes, nutrition powder, pet food and so on. And our technical assistance will help clients produce high quality products all the time.