## **Automatic and Smart Biscuit Production Line – Bake More, Faster!**

#### Introduction:

The automatic <u>biscuit production line</u> is novel in design, compact in structure and high in automation. Biscuit making machines are designed for the mass production of biscuits in an efficient and standardized manner. They combine mechanical engineering and food technology to ensure high-quality output and consistency in biscuit size, shape, and texture. All the mechatronics of each equipment are automatically completed, and the thickness of the biscuit can be adjusted arbitrarily.

Put the mixed dough into the machine and roll it into biscuits of various shapes and weights. After baking, oil spraying and cooling, it produces golden, delicious and crisp biscuit, and the biscuit pattern can be changed according to the customer's preference. The biscuit equipment has various heating methods, including electricity, gas, heat transfer oil, etc., for customers to choose at will.

The world of biscuit manufacturing has evolved with cuttingedge technology, making production faster, smarter, and more efficient. An automatic <u>biscuit production line</u> ensures consistent quality, higher output, and reduced labor costs. Whether you're a large-scale manufacturer or a growing bakery, investing in a biscuit process line can revolutionize your business. Let's explore how these advanced biscuit making machines work, the benefits of biscuits, and the endless variety they offer.



## **Application of Biscuit Making Machine**

The machine is controlled by an automatic operating system and PLC touch screen, enabling continuous automatic production by simply setting parameters in advance, greatly improving production efficiency. It is also equipped with an automatic alarm system to detect system faults and reduce losses, making it one of the most popular biscuit machines on the market.

As a specialist biscuit manufacturing machine, the biscuit making machine can produce a range of high-quality biscuits, whether they are soda biscuits, chocolate sandwich biscuits, or printed biscuits. The biscuit making machine can automate the production of soda biscuits, which are very demanding and can only be produced with high-performance equipment.

Biscuit making machine can be designed with different capacities according to customer requirements, enabling individual customization to meet manufacturers' different needs. The machine is also one of the most popular machines thanks to its high quality and competitive price.

The biscuit making machine adopts advanced technology at home and abroad, uses the best quality food-grade materials. It is equipped with various models, allowing manufacturers to produce various types of chocolate sandwich biscuits, hard biscuits, and soda biscuits according to market demand. The machine has mature technology, and the control and operation of key components are more accurate and safer. Meanwhile, manufacturers can provide perfect after-sales service, making it a highly sought-after quality machine for all major biscuit manufacturers.



### **How an Automatic Biscuit Production Line Works?**

A modern biscuit production line is a seamless system where dough is mixed, shaped, baked, cooled, and packaged with minimal human intervention.

The process begins with high-quality ingredients fed into a

mixer, forming a smooth dough. The dough then moves through a biscuit rolling and shaping machine, where it is rolled, cut into shapes, and transferred to an oven.

The biscuit making machine ensures precise baking temperatures for perfect crispiness. After baking, the biscuits cool on a conveyor before automated packaging. This biscuit production line reduces waste, speeds up output, and maintains uniform taste and texture. With smart sensors and AI integration, modern biscuit process lines can even adjust recipes in real time for optimal results.

Nowadays, the improvement of living standards has also caused people to pay attention to the cultivation of hobbies. Many people regard baking as a hobby. The biscuits made by themselves are always exceptionally delicious. Do you know how to make biscuits?

The professional technical article in the top ten biscuit production lines in 2021 shows that making biscuits is a very fulfilling thing. It can not only improve the hands-on ability and make our lives more colorful, but also eat safer and more secure biscuits. The steps of making biscuits are also relatively simple. After kneading, cutting, and baking, the production can be completed.

When making biscuits, in order to ensure the quality and efficiency of biscuits production, the manufacturer usually uses the Biscuit Production Line for production. This equipment is recognized by the manufacturer as a high-

quality equipment.



# PRODUCTION PROCESS, STEPS, AND COMPOSITION STRUCTURE

Process flow: Flour Mixer?Shaping?Cutting?Controller?Baking Oven?Spraying Oil?Cooling?Packing

First, we need to prepare all the ingredients and flour, follow the recipe to ensure the exact amount of ingredients, and then place these ingredients in the Dough Maker to be mixed.

The next formed dough will go into the Compound Rolling and Shaping Machine, including roll printing and roll cutting, and then creating various shapes of biscuits according to the machine model.

Once the biscuit shapes are made, the biscuits will go into the baking oven.

Then the biscuits go to the Oiling Sprayer for flavoring and oiling.

After oil spraying, the biscuits enter the Cooling Machine.

Finally, put the biscuits into the package.

## 1.Mixing Material

Mixing the raw material of flour ,sugar,together.

## 2.Shaping:

Add the prepared dough to the feeding hopper of the rolling

and cutting biscuit form machine. Under the carrying and squeezing of the feed trough roller. The material enters the mold of the roll and be compacted.

Form a relatively neat bottom surface of the biscuit blank. As the mold roll rotates further downward. The biscuit blank touches the horizontal canvas conveyor belt. And release from the mold under the action of rubber release roller.

The biscuit can be different shape and pattern, different size

By changing the machine molds.such as round, square, heart, triangle.flower, etc.

## 3.Baking:

Because the Soft biscuit formula contains more oil and sugar. There is less binding in the dough. Therefore, the moisture in the dough easily evaporates. Then the baking process of crispy biscuits often adopts the "higher temperature. shorter baking time" baking process.

In actual production. The appropriate baking temperature will be depend on the hardness, size of the biscuit blank .Generally speaking. The temperature in the front area of the oven is 250?280?. The temperature in the central zone is 220?240?. The temperature in the rear zone is 180?200?. At this baking temperature. The baking time is 5 to 6 minutes.

## 4.Oil Spraying

Spraying oil on the surface of the baked biscuit to make biscuit more beautiful and delicious,

## 5.Cooling

The surface temperature of the biscuits when they are just out of the oven can reach 180?, and the temperature of the center layer is about 110?, which must be cooled to 38?40?. Due to the low content of sugar and fat in the ingredients and the large pores in the biscuits, hard biscuits are prone to cracking and cracking of the finished product. During the cooling process, forced ventilation cannot be used to prevent the temperature from falling too fast and the transportation environment being too dry. The product is broken during storage and requires complete cooling, as low as possible at room temperature.

## 6.Packing

The last step was packing, it can adopt small bag packing



## **Small biscuit process line technical parameter?**

Item No.	Capacity?kg/ h?	Heating type
LY-25-I	40-50kg/h	Electricity?Gas?Die sel
LY-25-II	50-100kg/h	Electricity?Gas?Die sel
LY-320	100-150kg/h	Electricity?Gas?Die sel

## Automatic biscuit process line technical parameter?

Item No.	Capacity?kg/ h?	Heating type
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LY-400	150-200kg/h	Electricity?Gas?Die sel
LY-600	400-500kg/h	Electricity?Gas?Die sel
LY-800	600-800kg/h	Electricity?Gas?Die sel
LY-1000	1000kg/h	Electricity?Gas?Die sel
LY-1200	2000kg/h	Electricity?Gas?Die sel



## Why Biscuits Are a Popular Choice

Biscuits are loved worldwide for their convenience, long shelf life, and delicious taste. A well-designed biscuit making machine ensures that every batch meets high standards, whether producing crunchy crackers or soft cookies. Since they require no refrigeration, biscuits are ideal for snacks, travel, and emergency food supplies.

The biscuit production line also allows for customization—adding flavors like chocolate, vanilla, or spices. Thanks to automation, the biscuit process line can produce thousands of biscuits per hour, making them a costeffective choice for businesses. Whether sweet or savory, biscuits cater to all tastes, making them a staple in households globally.

#### **Benefits of Biscuit Production Line:**

1. The automatic cookie production line has a large output, which can guarantee the market demand.
2. The cookie process technology in the production and

manufacturing workshop is advanced, stable and reliable, and can be kept basically unchanged for a longer period of time.
3. Full-automatic cookie equipment to reduce the

production area.

4. Improve labor productivity, stabilize and improve product quality.



## **Endless Variety: Shapes, Flavors, and Types**

One of the biggest advantages of a biscuit making machine is its ability to create diverse shapes—round, square, animal-shaped, or even custom designs. The biscuit production line can switch molds quickly, allowing manufacturers to produce multiple varieties without downtime.

Popular types include butter biscuits, cream-filled sandwiches, and gluten-free options. The biscuit process line ensures each variety maintains its unique texture—whether crumbly, crispy, or chewy. With advanced technology, the possibilities are endless!

## **Types and Samples?**

1.Soft Biscuit:(the shape and pattern can be made according to customer)

Biscuit manufacturing process Flour Mixing---Soft Biscuit Forming---Biscuit Baking---Oil Spraying---Biscuit Stacking ---Cooling And Sterilization ---Biscuit Packing

The appearance of short biscuits is an obvious pattern. Most of them are protruding patterns; the structure is fine and soft, the holes are more significant, the sugar and oil content is higher than that of tough biscuits.

Biscuits are baked with flour and water or milk without yeast and can be used as storage food for travel, sailing, hiking, and as backup food for military personnel in times of war. The biscuit category contains biscuits, soda crackers, and pizza crackers, which are effective in regulating the immune system, supplementing nutrition, and replenishing energy.

2. Hard Biscuit:(the shape and pattern can be made according to customer)

The primary raw materials for making hard biscuits are: flour, starch, sugar (used in the form of syrup), caramel, eggs, fat, ammonium bicarbonate, sodium bicarbonate, sodium metabisulfite, concentrated lecithin, spices, etc

Most of the hard biscuit is a concave flower; its appearance is smooth, the surface is flat, the impression is clear, the cross-sectional structure is layered, chewing has a crunchy feeling, chewy, the surface has a pinhole

## 3. Sandwiching biscuit

All working procedures are from flour mixing, molding, waste recycling, baking to cooling and can be fully automatic in Biscuit Sandwiching Machines. Hundreds of models and dozens of technology recipes make it to produce all kinds of famous biscuits, such as cream biscuits, sandwich biscuits, soda crackers, vegetable biscuits

# **Conclusion: The Future of Automated Biscuit Manufacturing**

The biscuit production line has transformed the industry, enabling mass production without compromising quality. By investing in a high-tech biscuit making machine, manufacturers can boost efficiency, reduce costs, and meet growing consumer demand.

From mixing to packaging, the biscuit process line streamlines every step, ensuring delicious, consistent products every time. Whether you're baking classic crackers or gourmet cookies, automation is the key to success in the biscuit industry.

The Biscuit Production Line of tomorrow will blend cuttingedge technology with artisanal craftsmanship, driven by AI, 3D printing, and hybrid systems. These innovations promise to redefine efficiency, customization, and sustainability in snack manufacturing.

#### 1. Al-Driven Predictive Maintenance

Artificial intelligence is transforming Biscuit Production Machines by predicting equipment failures before they occur. Machine learning algorithms analyze data from vibration sensors, thermal cameras, and energy meters to forecast wear and tear.

## 2. 3D-Printed Biscuit Designs

Smart Biscuit Production Machines are now enabling 3Dprinted cookies with intricate shapes and layered textures. The PrintBite Pro system by BakeInnovate uses edible inks and precision nozzles to create custom designs—from corporate logos to holiday-themed crackers—without slowing production.

## 3. Hybrid Systems for Artisanal Quality

Automation is no longer at odds with craftsmanship. Hybrid Biscuit Process Lines combine robotic efficiency with human expertise for premium products. For instance, the ArtisanAuto Line by HeritageBake uses robotic dough shapers paired with hand-finished detailing, producing 10,000 "handcrafted" biscuits daily.

Upgrade to a smart biscuit production line today—and bake more, faster!

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