

Fully Automatic Biscuit Production Line for High-Efficiency Cookie Manufacturing

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Introduction to Fully Automatic Biscuit Production Line

In today's highly competitive food industry, modern biscuit production demands more than just high output—it requires efficiency, precision, and consistency. As consumer expectations continue to rise, manufacturers are seeking advanced solutions to meet these demands while maintaining cost-effectiveness and quality control. This is where the fully automatic biscuit production line steps in as a transformative solution.

A fully automatic biscuit production line integrates advanced technology into every stage of the manufacturing process—from dough mixing to baking and packaging—to deliver superior efficiency and hygiene standards. By minimizing manual intervention, these systems not only reduce labor costs but also ensure uniform quality across large production volumes.

Dr. Andrew McGregor, a food processing specialist at the European Food Engineering Association, emphasizes, "Automation in bakery production has shifted from being a luxury to a necessity. With fully automatic systems, producers gain the ability to scale quickly, respond to market trends, and guarantee product consistency without compromising quality." Key components such as the biscuit making machine, biscuit production line, and biscuit packaging equipment work in synchronization to streamline operations. Each part of the system

the mixers and shapers to the baking ovens and cooling conveyors—is designed for high throughput, stable performance, and compliance with food-grade manufacturing standards. Moreover, integrating automation doesn't just mean speed—it also enhances precision, allowing producers to experiment with diverse recipes, textures, and cookie shapes without sacrificing output. Whether it's traditional butter biscuits or complex filled cookies, a modern biscuit production line ensures optimal performance under varying production conditions.

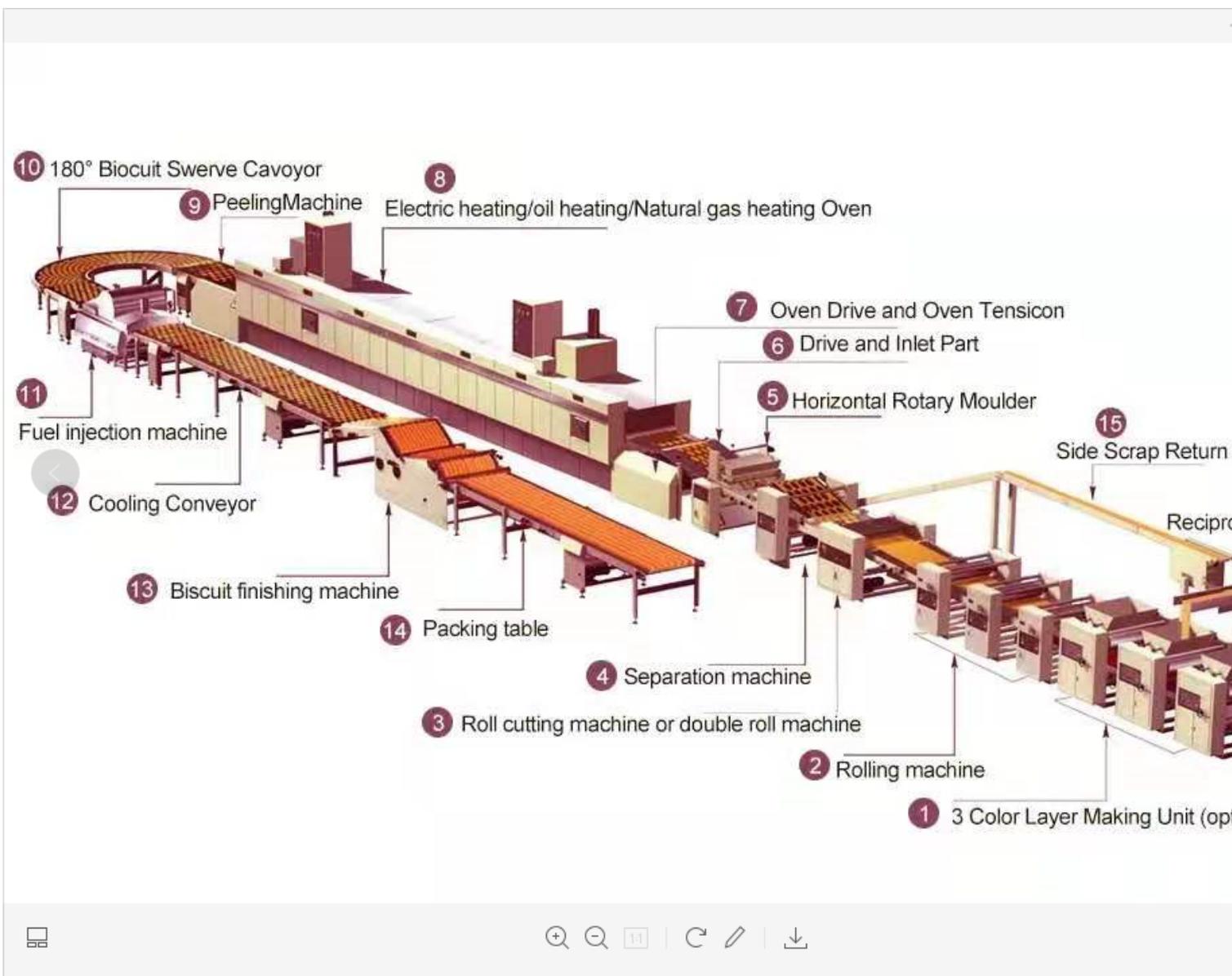


Biscuit production line flow chart

Flour Mixing---Biscuit Forming machine---Oven---Oil Spraying ---Cooling Conveyor---Stacking ---Biscuit Packing

The production capacity of biscuit making machines is hot in the market. We have small and large biscuit machines for you to choose from.

A fully automatic biscuit production line consists of several integrated systems, each designed to handle a specific stage in the manufacturing process with precision and consistency. Understanding these core components is essential for manufacturers aiming to achieve high-efficiency biscuit production.



The function of biscuit production line

Mixer: Dough mixer is a machine that mixes flour with water or other ingredients into dough. It is widely used in making dough for various pastries, biscuits, bread, steamed buns, etc.

Biscuit Forming machine: Crispness molding: put the mixed flour into this machine, it can be formed into biscuit embryos through roller printing, and then put into the oven to make various medium and high-end biscuits.

Toughness molding: put the mixed dough into this machine, press the skin through rollers, and then roll it into biscuit embryos through the roller cutting mold, and put it into the oven to bake medium and high-end tough biscuits.

Oven: Suitable for baking all kinds of biscuits. Use electric heating, temperature zone control, temperature of each temperature zone can be set in advance, uniform temperature in the temperature zone, use high-quality insulation materials, good insulation performance, high thermal efficiency. Temperature control system, automatic temperature control, constant temperature, flexible operation, high safety performance.

Oil Spraying: Spray oil on the surface of biscuits coming out of the baking oven to make the color, aroma and taste of the biscuits more distinctive and improve the grade of the biscuits.

Cooling Conveyor: This equipment fully cools the biscuits before they are conveyed to the packaging machine to ensure the quality of the biscuits after packaging and extend their shelf life.

Biscuit Stacking: sort biscuits and pick out unqualified products

In summary, each element of the production line—from dough mixing to cooling systems—plays a pivotal role in producing high-quality biscuits at industrial scale. If you want to make sandwich biscuits, there are sandwich machines waiting for you to choose. If there is not enough space, you can also choose a turning machine.



Technical specifications of biscuit production line

Model	Output
LY-320	100-150kg/h
LY-400	150-200kg/h
LY-600	400-500kg/h
LY-800	600-800kg/h
LY-1000	1000kg/h
LY-1200	2000kg/h

Layout for the biscuit production line

Our machines can be flexibly arranged according to the size and dimensions of the factory. We can also customize the size of the machine according to the data you provide.

Sample of biscuit making machine



Advantages of Using Fully Automatic Biscuit Making Machine

Adopting a fully automatic biscuit making machine brings measurable advantages for manufacturers looking to increase productivity, ensure quality, and meet stringent food safety standards. Unlike semi-automatic systems, these machines offer continuous, streamlined operation with minimal manual intervention, translating into consistent output and operational excellence.

Boosting Production Capacity with Continuous Operation

One of the primary benefits of a biscuit production line with fully automatic systems is its ability to operate continuously. These machines can process large quantities of dough, shape cookies precisely, bake them uniformly, and cool them efficiently—all without interruption. This uninterrupted cycle significantly boosts production rates while reducing idle time.

Dr. Karen Zhou, a manufacturing systems expert at the Institute of Food Technology, states, “Continuous production systems in biscuit manufacturing enable companies to scale their operations while maintaining consistency, which is critical in meeting large-scale consumer demand.” This makes them ideal for both domestic brands and international food production enterprises.



Ensuring Uniform Size and Shape of Cookies

Precision engineering in biscuit making machines ensures that each cookie meets exact specifications for size, weight, and shape. Whether you're producing round butter biscuits, rectangular crackers, or intricate seasonal biscuits, modern machines utilize servo-driven motors to maintain perfect uniformity throughout the production run.

Uniformity not only enhances visual appeal but also ensures even baking and consistent packaging. This is crucial in brand-driven markets where every detail—from crunch to color—affects customer perception.

Moreover, enclosed systems reduce the risk of human contact during production, significantly lowering the chance of bacterial exposure or allergen cross-contamination.

In conclusion, using a fully automatic biscuit making machine is a strategic investment for manufacturers aiming to scale with confidence. These machines not only elevate production volume and precision but also reinforce trust through enhanced safety and product consistency.

Application Range of the Biscuit Production Line

A modern biscuit production line is not limited to producing a single type of biscuit. Through advanced customization capabilities and precision control systems, today's lines are engineered to accommodate a wide range of formulations, textures, and shapes—making them an invaluable asset for diversified biscuit manufacturing.

Types of Cookies That Can Be Produced

Whether you're aiming for mass-market butter biscuits or specialty health-focused cookies, a biscuit making machine can be configured to suit a broad spectrum of products. Common types include:

Hard biscuits (e.g., Marie biscuits, crackers)

Soft cookies (e.g., chocolate chip, oatmeal cookies)

Filled or sandwiched cookies (e.g., cream-filled biscuits)

Decorative or embossed cookies (e.g., festive or seasonal designs)

Each product type requires specific shaping, baking, and cooling techniques, all of which can be seamlessly handled by modular biscuit equipment integrated into the production line.

Versatility in Recipes and Textures

Modern biscuit making machines support a variety of dough types—low fat, gluten-free, high fiber, sugar-reduced, and even organic formulations. Thanks to control systems and sensor-driven mechanisms, operators can easily adjust dough feeding speed, cutting pressure, oven temperature zones, and baking times to accommodate different recipes.

This level of versatility empowers manufacturers to respond swiftly to market trends and dietary demands. According to bakery consultant Elena Martens, “The ability to adjust a single production line to multiple product types without extensive downtime is a key driver of profitability and brand expansion in today’s biscuit sector.”

Adaptability to Different Biscuit Shapes and Designs

From classic rounds to novelty shapes, a well-designed biscuit production line can accommodate changing packaging needs and consumer preferences. Interchangeable molds and cutting tools make it easy to switch shapes with minimal production interruption.

In essence, the adaptability and wide application range of modern biscuit equipment enable manufacturers to maximize production value while minimizing investment in multiple machines—an efficient solution for a dynamic food market.

We sincerely invite industry partners to explore the infinite possibilities of biscuit manufacturing and work together to create a new era of smart baking.



Recommended Company

Shandong Loyal Industrial Co.,Ltd. Is a Manufacturer Of Snacks Extruder Machine , Industrial Microwave Oven , Corn Flakes Production Line , And a Standing Director Of Food And Drying Equipment Industry Association.

The Self-developed Twin-screw Extruder And Single-screw Equipment of Shandong Machinery Have Been Used In Production: Puffed Snack Food, Breakfast Cereal Corn Flakes, Fried Pasta, Bread Crumbs, Fruit Chips, Baby Food, Textured Soy Protein (to Food, Fish Feed And Pet Food. a Variety of Snack Production Line Supporting Production. The Same Time, The Batching, Drying, Flaking, Baking, Frying And Spraying Equipment Matching The Twin-screw Extrusion System Have All Achieved Independent Design . Production.

Our Extrusion System Is Widely Used In: Puffed Snack Foods, Breakfast Cereals, Vegetable Protein Meat Products, Soy Based Nutrition Bars, Reconstituted Rice, Grain Nutrition Powder, Modified Starch, Starch-based Sticky Music Children's Educational Toys, Degradable Starch-based Packaging Filling Materials, Bread Crumbs And Other Food Additives, Pet Food, Aquatic Feed, Biology And Chemical Industries.

Customer-specific Food Processing Plant Project Solutions

As one of the leading manufacturers of food processing equipment, we are always searching for new solutions that benefit our snack food customers. Our experienced frying engineers always find the optimal solution for your industrial batch and continuous frying system application. That's why we also develop, design and produce custom fried snack production line.

Close collaboration with our customer is important to us even in the early development phase. No matter what the special requirements of instant noodles production line, snack food extruder machine, pasta production line application, we can develop a custom food processing equipment to match your needs.

Loyal have a unique and efficient industrial continuous frying equipment for snack food extruder machine that provides the right crunch and desired moisture level.

The Industrial Microwave Sterilization Defrosting Drying Machine can be designed as powder dosing system and a wet slurry dosing system as required.

Some snacks can also be fried according to taste requirements, and we also provide Snack Production Line for the processing and packaging of fried extruded snacks.

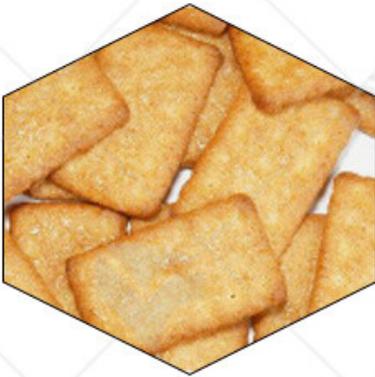
Loyal Food Production Line meet the needs of customers to obtain snack food that meets needs.

In ovens or drying units, electric or gas can be used as heating sources.

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About packaging and after-sales service

Packing: Plastic Film Suitable For Ocean Carriage

Technical Support: The customer can inform machine related problems to us via telephone, email or fax. All information will be recorded and will be reported to the After-sale Service team. Meanwhile, the sales person will be tracking the case until problem solved.

Service Team: We have a professional After-sale Service team including 10 professional engineers with at least 6 years working experience. After-sale Service available : 1. Check & test before delivery 2. Instruction for installation 3. On site commissioning 4. Repair & maintenance

After the receipt the advanced payment, we will provide allocation chart at the buyer's request. When effect the shipment, we'll provide operation manual, etc. in English.