

Understanding The corn flakes production line? The Ultimate Guide To corn flakes production line

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In recent years, the demand for healthy and convenient breakfast options has grown rapidly across the globe. Among the many choices available, corn flakes have remained a popular staple on breakfast tables due to their crisp texture, mild flavor, and nutritional value. But have you ever wondered how these golden flakes are made on a large scale? The answer lies in a highly efficient and specialized system known as the [corn flakes production line](#).

A [corn flakes production line](#) is an automated food processing system designed to transform raw corn into finished, ready-to-eat flakes. It integrates multiple stages such as mixing, extruding, flaking, drying, and toasting—all carefully controlled to ensure product consistency and quality. This industrial process not only enhances production efficiency but also ensures food safety, uniform taste, and extended shelf life.

The core ingredients used in corn flakes include degermed corn powder, sugar, salt, and sometimes added vitamins or minerals. Once the raw materials are prepared, they pass through a series of advanced machines including twin-screw extruders, flaking rollers, dryers, and high-temperature baking machine. Each section of the corn flakes production line plays a critical role in shaping the flavor, texture, and nutritional profile of the final product.

Modern corn flakes production lines are also designed with energy efficiency and automation in mind, allowing food manufacturers to meet large-scale demands while reducing manual labor and operational costs. Whether for breakfast cereals, snacks, or as an ingredient in granola bars, corn flakes continue to be a versatile and in-demand

product—thanks to the sophistication of this industrial processing technology.



Corn flakes production line flow chart

Mixer ? Screw conveyor? Double-screw Extruder ? Cooling Conveyor?
Air Conveyor ? Flaking Machine ? Air Conveyor ? Dryer ? Elevator ?
Vibrating Feeder ? Baking machine? Elevator ? Sugar pan ? Sugar

Spray System ? Oven? Cooling Conveyor

These corn flakes equipment have reasonable structural design, special material selection, easy operation and precise parameters. The corn flakes products finally produced are crispy and delicious, and are very popular in the market.

The function of Corn flakes Making Machine

1.Mixer: Mixer makes the raw material adding to water and other chemical additive fully mixed.

2.Screw Conveyor: Screw conveyor is advantage is suit for powder item that is bad fluidity. In food processing industry, it is for conveying flour, powder additives, seasoning powder ect. Here is used to elevate the mixed raw materials to extruder.

3.Twin Screw Extruder: The powder is mixed with other ingredients to create a homogeneous blend. The mixing process is important to ensure that the powder has a consistent nutrient profile, texture, and flavor.

4.Vibrating Feeder: Use vibration to separate the product and cooling.

5.Flaking machine: Corn flakes thickness adjustment: hydraulic control, precise and convenient. Corn flakes thickness adjustment range?1mm-5mm. Pressure roller scraper: The scraper can adjust the tension, and the tension can be adjusted according to the actual work product needs.

6.Air Conveyor: Used to carry products to the next machine.

7.Oven: This machine is used to dry the snacks food. The heating temperature and the drying speed can be adjust. It can be used to bake and dry the food. The oven can bake all kinds of the inflating food, pet food, TVP/TSP food, peanut, nut, chew nut and so on. The temperature

can be controlled willfully and designed according to the need.

8.Hoister: elevate products to flavoring machine

9.Baking Machine: Keep the moisture below 3%. The operating speed of the oven is controlled by frequency conversion, smooth operation and long-term use. The temperature is controllable, and precise temperature probes are installed in heating zones during heating to ensure that the temperature error is small and affect the product.

10.Sugar pan: Used to melt sugar

11.Sugar spray system: To flavoring the corn flake /cereal with sugar on surface

12.Cooling Machine: Cool the products to room temperature



Technical specifications of corn flakes equipment

Model	Installed power	Power consumption	Output	Size(L*W*H)(mm)
LY65	140kw	90kw	120-150kg/h	39000*1200*2200
LY70	160kw	120kw	180-220kg	41000*1500

			/h	*2200
KING75	190kw	140kw	300-500kg /h	43000*3500 *4300
KING95	240kw	190kw	800-1000k g/h	65000*5000 *4300

Voltage	Three phase 380V 50HZ (can customized)
Standard	The Motor Can Choose Siemens, Delixi Or Delta Combine With Good Brand Electrcity Parts
Machine materials	Contact food SS 304, cover SS 201 Frame: carbon steel Screw of extruder: 38CrMoAi Cutter and dies: carbon steel Barrel: 45# steel/A101 alloy
Products:	The corn flakes making machine adopts corn flour, rice flour, and other starched as the main raw materials to produce various shapes such as rings,balls , flowers, numbers etc, after dried and seasoned, its crispy taste. Different shapes can be made by adjusting the dies from extruder

Sample of corn flakes making machine

Made with advanced puffing technology, it has a crispy texture and is non-fried and healthier.

Corn flakes are usually made from corn flour or other grains, and are puffed, baked or extruded. Moderate consumption of corn flakes can bring the following health benefits, but be careful to choose low-sugar, low-salt, and low-additive varieties:

1. Providing energy and carbohydrates

(1) Rapid energy supply: Corn flakes are rich in carbohydrates (mainly starch), which can be quickly converted into glucose, making them suitable as breakfast or energy supplements after exercise.

(2) Low fat: Original corn flakes have a low fat content and are suitable for people who need to control their fat intake.

2. Dietary fiber promotes digestion

(1) Whole grain corn flakes are better: If made from whole corn or whole grains, they are rich in dietary fiber, which helps promote intestinal peristalsis and prevent constipation.

(2) Strong satiety: Fiber can delay gastric emptying, reduce hunger, and assist in weight management (but avoid high-sugar varieties).

3. Vitamins and minerals

(1) B vitamins: Corn flakes are often fortified with thiamine (B1), riboflavin (B2), niacin (B3), etc. to support metabolism and nervous system health.

(2) Iron and zinc: Some products are fortified with minerals, which helps prevent anemia and enhance immunity.

4. Convenience and speed

(1) Ready-to-eat: It can be eaten directly or paired with milk, yogurt, or fruit, which is suitable for a fast-paced life.

(2) Long storage time: The drying process makes it less likely to deteriorate and easy to carry.

5. Gluten-free options (some products)

Suitable for those with gluten intolerance: Pure corn flakes do not contain wheat gluten and are a safe choice for people with celiac disease or gluten sensitivity (label confirmation required).

Potential issues to note

1. High sugar risk: Many corn flakes have added sugar (such as honey flavor, chocolate coating), and excessive intake may increase the risk of obesity and diabetes.
2. High salt problem: Salty corn flakes have a high sodium content, which is not conducive to blood pressure control.
3. Processing loss: Refined corn flakes may lose some of the original nutrients of corn (such as vitamin E in the germ).
4. High glycemic index (GI): Refined corn flakes have a high GI value, and diabetics should eat them in small quantities or choose high-fiber varieties.

Healthy eating suggestions

1. Prefer products with simple ingredients: corn or whole grains should be the first on the ingredient list, and avoid sugar, salt, and trans fats (such as hydrogenated oil) ranking high.
2. Pair with protein and fiber: such as milk, Greek yogurt, nuts or fresh fruits to balance nutrition and reduce blood sugar fluctuations.
3. Control the portion size: It is recommended to consume about 30g (a small bowl) at a time to avoid overeating.

As a popular snack food and breakfast cereal, corn flakes have a growing market demand. Its crispy texture and diverse flavors make it an important category in the global snack market. The technical level of corn flake production lines directly affects product quality, production efficiency and market competitiveness.

If you are interested, here are some recommended companies.



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 China Food And Drying Equipment Industry Association.

The Self-developed Twin-screw Extruder And Single-screw Equipment of Shandong Loyal Machinery Have Been Used In Production: Puffed Snack Food, Breakfast Cereal Corn Flakes, Fried Pasta, Bread Crumbs, Fruit Chips, Baby Food, Textured Soy Protein (tsp) Food, Fish Feed And Pet Food. a Variety of Snack Production Line Supporting Products.at The Same Time, The Batching, Drying, Flaking, Baking, Frying And Spraying Equipment Matching The Twin-screw Extrusion System Have All Achieved Independent Design And 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 line 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 made 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 a dry 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 Fried 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 meet the 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. They can handle technical consultation about manufacturing process, maintenance, fault diagnosis and troubleshooting, etc.

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.

As consumer preferences continue to evolve toward healthier, faster, and more consistent food choices, the corn flakes production line stands as a testament to how modern technology can transform simple agricultural products into globally loved foods. It not only reflects the advancement of food engineering but also embodies a broader trend toward automation, hygiene, and efficiency in food manufacturing.

By understanding the science and precision behind every golden flake, we gain a deeper appreciation for the innovation that supports our daily lives—one breakfast bowl at a time. Looking ahead, the continuous improvement of corn flakes production technology will play a vital role in meeting the growing demand for quality cereals around the world.



Reference

The following are five authoritative foreign literature websites in the field of Industrial food machinery:

1. Food Engineering Magazine

Website: <https://www.foodengineeringmag.com/>

2. Food Processing Magazine

Website: <https://www.foodprocessing.com/>

3. Journal of Food Engineering

Website: <https://www.journals.elsevier.com/journal-of-food-engineering>

4. Food Manufacturing Magazine

Website: <https://www.foodmanufacturing.com/>

5. International Journal of Food Science & Technology

Website: <https://onlinelibrary.wiley.com/>