## **Discovering The World Of corn flakes production line**

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In the modern food industry, corn flakes are a popular instant cereal food that is widely used on breakfast tables for its crispy taste and rich nutrition. So how did these thin golden corn flakes evolve from corn kernels? The answer lies in the highly automated <u>corn flake production line.</u>

The production process of corn flakes seems simple, but it actually involves multiple precise steps. The raw materials are mixed evenly in the powder mixer, and then the raw material powder is sent to the puffing machine for high temperature and high pressure puffing to form preliminary puffed particles. These particles are pressed, dried, baked and other processes, and finally become the corn flakes we are familiar with.

The entire production line not only realizes continuous operation, but also accurately controls time, temperature and pressure through machinery to ensure stable product quality and high production capacity.

With the continuous advancement of technology, modern <u>corn flakes</u> <u>equipment</u> is becoming more and more easy to operate, making the production of corn flakes more efficient and closer to consumers' dual needs for health and deliciousness.

Every piece of corn flakes is like a memory of sunshine, passing through fields and workshops, and finally arriving in your bowl. We have never participated in its production, but we enjoy the tenderness it brings every day - this is the most touching aspect of industrial temperature.

The origin of corn flakes can be traced back to the United States in the

late 19th century. It was originally developed by the Kellogg Brothers in Michigan as a health food for nursing home patients. When they tried to cook wheat, they accidentally discovered that the cooled wheat would form flakes when rolled and baked into crispy flakes. Later, they tried to replace wheat with corn, and the first batch of corn flakes was born.

In 1906, John Kellogg's brother Will Kellogg founded the famous Kellogg's company and began to commercialize corn flakes. Corn flakes gradually entered thousands of households and became a popular breakfast cereal.

With the development of food processing technology, the production of corn flakes has gradually been mechanized and automated. Corn flakes are not only more diverse, but also have higher nutritional value and wider market demand.

Today, corn flakes have become one of the most popular instant breakfast foods in the world, and also symbolize health, convenience and the rhythm of modern life.



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

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

Voltage	Three phase 380V 50HZ (can customized)			
Standard	The Motor Can Choose Siemens, Delixi Or			
	Delta Combine With Good Brand Electrcity Parts			
Machine	Contact food SS 304,			
materials				
	cover SS 201			
	Frame: earban steel			
	Frame: carbon steel			
	Screw of extruder: 38CrMoAi			
	Cutter and dies: carbon steel			
Products:	<b>č</b> .			
	<b>3</b>			
	and seasoned, its crispy taste.			
	Different shapes can be made by adjusting the			
	dies from extruder			
Products:	Cutter and dies: carbon steel Barrel: 45# steel/A101 alloy The corn flakes making machine adopts co flour, rice flour, and other starched as the ma raw materials to produce various shapes suc as rings,balls , flowers, numbers etc, after drie and seasoned, its crispy taste.			



#### Layout for the corn flakes making machine

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 corn flakes making machine

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

The corn flakes making machine has revolutionized snack food production, offering unmatched efficiency and consistency in breakfast cereal manufacturing. Modern fully automatic corn flakes equipment eliminates manual errors, ensuring uniform quality while maximizing output. According to Dr. Alan Thompson, a food processing engineer, "Automation in corn flakes production lines is no longer a luxury—it's a necessity for meeting global demand while maintaining strict hygiene and precision."

These advanced systems integrate cutting-edge extrusion, drying, and packaging technologies, making them indispensable for large-scale manufacturers. The shift from semi-automatic to fully automatic corn flakes machines has significantly reduced production time while enhancing product texture and flavor retention.



## Key Features of Fully Automatic Corn Flakes Making Machines

#### **Advanced Extrusion Technology**

The heart of the corn flakes making machine, extrusion technology ensures each flake achieves a consistent thickness and shape. Twinscrew extruders work under controlled pressure, gelatinizing starches for optimal crispiness.

### **Applications in the Food Industry**

Breakfast Cereal Manufacturers: High-output corn flakes equipment meets supermarket shelf demands.

Gluten-Free/Functional Foods: Adaptable for alternative grains (e.g., quinoa) or protein-enriched flakes.

#### Conclusion

Upgrading to fully automatic corn flakes machines is a strategic investment for manufacturers aiming to scale production without compromising quality. As Dr. Thompson notes, "The next frontier is smart automation—think self-optimizing drying cycles—though current systems already offer transformative efficiency."

Future advancements may focus on sustainability, such as reduced water usage in corn flakes production lines, but today's technology delivers unmatched reliability for global snack producers.

#### **Advantages Over Semi-Automatic Systems**

Faster Production Cycles: Corn flakes production lines with full automation can operate continuously, reducing batch times by up to 40%.

Reduced Manual Intervention: Automated controls minimize human handling, lowering contamination risks.

Scalability: Manufacturers can easily expand output by integrating additional corn flakes equipment modules.

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 including10 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.

In this fast-paced era, food is not only a tool to fill your stomach, but also an emotional connection and comfort of life. Behind a small piece of corn flakes is the gift of the land, the ingenuity of craftsmanship, and people's pursuit of quality life. What makes this delicious food enter thousands of households is a stable, efficient and trustworthy corn flake production line.

If you also have a passion for the food industry and hope to bring nutrition and warmth to more people, then now is the time to start. Choosing a set of mature corn flake equipment is not only an investment, but also a commitment to the future. It will become a powerful assistant in your career, helping you turn the dream product into a beautiful reality.

Let technology empower nature, so that every grain of corn has its own shining stage. Join us and start your own food manufacturing journey together, and make ordinary ingredients into extraordinary tastes. The world needs more warm breakfasts, and you are the maker of this warmth.



## 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/