

# How To Choose The Best Puffed Snack Production Line: 2025 Buyer's Guide

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## Introduction of Puffed Snacks

Puffed snacks are light, crispy, and airy food products made from grain-based ingredients such as corn, rice, or wheat. Through a high-temperature, high-pressure extrusion process, the raw materials are rapidly cooked and expanded to create their signature crunchy texture. These snacks are widely loved for their variety of shapes, flavors, and convenience, making them popular among both children and adults.

Due to their long shelf life, low moisture content, and wide flavor adaptability, puffed snacks are an ideal choice for modern snack manufacturers. Whether savory, sweet, filled, or health-focused, they offer endless possibilities in terms of formulation and consumer appeal—making them a staple product across global snack markets.

## Overview of Puffed Snack Production Line

In the dynamic realm of the food industry, the puffed snacks production line stands as a pivotal piece of food machinery. Puffed snacks, characterized by their light, airy, and crispy texture, have carved a significant niche in the global snack market. These snacks, which can range from savory corn puffs to sweet rice-based treats, owe their existence to a meticulously engineered production line.

At its core, a puffed snacks production line is an assembly of interconnected processes and equipment that work in harmony to transform raw ingredients into the final, delectable product. This production line is not just a series of machines; it's a symphony of technology and engineering designed to meet the ever-growing

consumer demand for puffed snacks while maintaining strict quality and safety standards.

## **Key Components of the Puffed Snacks Processing Line**

### **Extruder: The Core Component**

The extruder is the heart of the puffed snacks production line. It uses high - pressure and high - temperature conditions to transform conditioned grains into puffed snacks. Inside, the grains experience intense mechanical shear as they pass through a die.

As the grains move through, pressure and temperature increase, causing starch gelatinization and water turning into steam. When the material exits the die, the sudden pressure drop makes the steam expand, resulting in puffing. Keywords associated with the extruder are "extrusion technology" and "pressure - controlled extrusion".

There are different extruder types, such as single - screw and twin - screw extruders. Twin - screw extruders offer better mixing and process control, making them a preferred choice for many manufacturers.

### **Shaping and Cutting**

Post - extrusion, the puffed snack mass is continuous. Shaping and cutting mechanisms are used to create individual snack pieces. Different dies can be employed in the extruder to produce various shapes like rings or sticks. A rotating knife or blades then cut the extruded mass into appropriate lengths.

### **Flavoring System**

The flavoring system is where puffed snacks gain their appeal. After shaping and cutting, snacks are flavored with a wide range of

seasonings, from classic salt and vinegar to unique flavors like truffle. Flavor can be applied through dusting or spraying

## **Drying and Cooling**

After flavoring, snacks may have excess moisture, which can impact shelf - life and texture. Cooling equipment then reduces the temperature of the snacks. This stabilizes the texture and prevents flavor degradation.

## **Packaging Unit**

The final stage is the packaging unit. Packaging protects snacks from air, moisture, and contaminants and presents the product attractively. Materials like plastic films, paper - board boxes, and flexible pouches are used.

## **Technical Parameters of Puffed Snacks Production Line**

| Model | Installed Power | Power Consumption | Output       | Size( L*W*H)      |
|-------|-----------------|-------------------|--------------|-------------------|
| LY 65 | 80kw            | 55kw              | 120-150kg /h | 21000*1200*2200mm |
| LY 70 | 115kw           | 95kw              | 200-250kg /h | 23000*1500*2200mm |
| LY 85 | 170kw           | 140kw             | 500-700kg /h | 28000*3500*2200mm |
| LY95  | 230kw           | 164kw             | 800-1000kg/h | 29000*2500*3500mm |



## Equipment list of Puffed Snacks Manufacturing Line

Mixer ?Screw Conveyor ?Twin Screw Extruder? Air Conveyor ?Multi-layer Oven? Hoister ?Flavoring Line

## Working Process of the Puffed Snacks Production Line

**1.Mixer:** It is used to evenly mix various raw materials, such as corn flour, wheat flour, starch, seasonings, and other additives. This ensures that the ingredients are uniformly distributed, which is crucial for achieving consistent product quality. For example, in the production of cheese - flavored puffed food, the mixer combines the base flour with cheese - flavoring powder and other ingredients to ensure a uniform flavor throughout the product.

**2.Screw Conveyor:** This machine is responsible for transporting the mixed raw materials from the mixer to the twin - screw extruder. It uses a rotating screw to move the materials along a closed - pipe conveyor, preventing material leakage and ensuring a continuous and stable supply of raw materials to the extruder. This helps maintain a consistent production process.

**3.Twin - Screw Extruder:** It is the core equipment of the puffed snacks making machine. The twin - screw extruder subjects the raw materials to high temperature, high pressure, and strong shear force. This causes the starch in the raw materials to gelatinize and the proteins to denature. As the materials are extruded through the die at the end of the extruder, they expand rapidly due to the sudden pressure drop, forming the characteristic puffed structure of the food. Different die shapes can be used to produce puffed foods of various shapes, such as twists, rings, and sticks.

**4.Air Conveyor:** After the puffed food is extruded, the air conveyor is used to transport it to the next processing station, which is usually the multi - layer oven. It uses air flow to carry the puffed food, gently moving the fragile puffed products without causing damage. This helps maintain the integrity of the puffed food during transportation.

**5.Multi - layer Oven:** The multi - layer oven is used to dry and further bake the puffed food. This process removes excess moisture from the puffed food, improving its crispness and extending its shelf life. The multi - layer design of the oven allows for a large production capacity,

and the temperature and baking time can be adjusted according to the specific requirements of different puffed food products.

**6.Hoister:** The hoister is used to lift the baked puffed food to a certain height so that it can be fed into the flavoring line. It ensures a smooth transition of the products between different processing stages and helps to maintain the continuity of the production process.

**7.Flavoring Line:** The flavoring line is responsible for adding various flavors to the puffed food. It usually includes equipment such as flavoring sprayers and mixers. The puffed food passes through the flavoring line, where it is sprayed with liquid or powder flavors and then mixed evenly to give the puffed food a rich and diverse range of tastes, such as barbecue, tomato, and seaweed flavors, to meet the different preferences of consumers.



## Maintenance and Optimization

### Regular Maintenance

Regular maintenance is vital for the smooth operation of the puffed snacks manufacturing line. Cleaning, especially of the extruder, is crucial to prevent residue buildup, which can affect product quality and equipment lifespan. Inspections of moving parts like belts, gears, and bearings are necessary. Worn - out parts should be replaced promptly. Keywords related to maintenance are "equipment upkeep" and

"component replacement".

## **Optimization**

Optimization can be achieved in multiple ways. Energy - efficient upgrades, such as installing new motors and control systems, can reduce energy consumption. Process control can be enhanced with advanced sensors and systems that monitor and adjust parameters like temperature and pressure in real - time.

# **Key Features of the Puffed Snacks Production Line**

## **Fully Automated Operation**

The puffed snacks making machine offers a highly automated solution that seamlessly connects every processing stage—from raw material feeding and mixing to extrusion, drying, flavoring, and final packaging. This integrated system minimizes the need for manual labor and enables 24/7 continuous production, significantly improving operational efficiency and output consistency. Automated sensors and control systems ensure real-time monitoring and adjustment, reducing the risk of human error and ensuring product quality across every batch.

## **Modular and Flexible Design**

Designed with adaptability in mind, the production line features a modular architecture that allows manufacturers to tailor the system according to their specific production requirements. Users can select from various extrusion capacities, interchangeable molds for diverse snack shapes, adjustable drying tunnel lengths, and custom seasoning systems. Whether you are launching a new product or scaling an existing one, this flexible configuration supports both small-scale trials and industrial-scale production, ensuring seamless integration into existing plant layouts.



## Food-Grade Construction

All components in contact with food are constructed from premium 304 stainless steel, offering excellent resistance to corrosion, high temperatures, and cleaning chemicals. This ensures that the entire system complies with strict international food safety standards, including CE, and ISO certifications. The smooth surface finish and easy-to-disassemble parts also support quick and thorough cleaning, reducing downtime between batches and helping manufacturers maintain the highest hygiene standards.



# Advanced Extrusion Technology

At the core of the line is a high-performance twin-screw extruder, engineered for maximum precision and product uniformity. The twin-screw system allows for better mixing, shearing, and cooking of raw materials, leading to more consistent puffing and texture control. This advanced extrusion technology also supports a broader range of raw materials and complex formulations, enabling the production of core-filled snacks, multi-layered textures, and even fortified or health-oriented snack varieties.

## FAQ

### 1. How to guarantee product quality stability?

Advanced control systems and sensors monitor and adjust key parameters. High - quality materials ensure equipment reliability for stable quality.

### 2.Can it make puffed foods in different shapes and flavors?

Yes. By changing extruder molds and flavoring methods, it can produce various shapes and flavors.

### 3.What's the production capacity?

It ranges from 100 - 1000 kg per hour depending on models. We'll recommend the right one for your needs.

### 4. Can capacity be expanded later?

Yes. We can offer solutions like adding modules or upgrading components.

### 5.Is it hard to operate? Do workers need long training?

User - friendly design. With 1 - 2 weeks of our comprehensive training,

workers can master basic operations.

6.How to keep it running continuously?

High - quality components reduce failures. Self - diagnosis system detects faults, and we offer 24 - hour support for quick fixes.

7. What after - sales services are provided?

Installation, training, warranty, and long - term technical support. Free repairs during warranty; paid services after.

8.How quickly do you respond to failures?

We respond within 24 hours, and technicians will go to site if needed to minimize production impact.

9. Why is your equipment more expensive?

High - quality materials, advanced tech, and comprehensive after - sales services justify the price, bringing long - term efficiency and cost savings.

10.What are the payment terms?

Usually 40% deposit on contract signing, balance before shipping or after installation. Multiple payment methods like bank transfer and L/C are supported.

## **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.

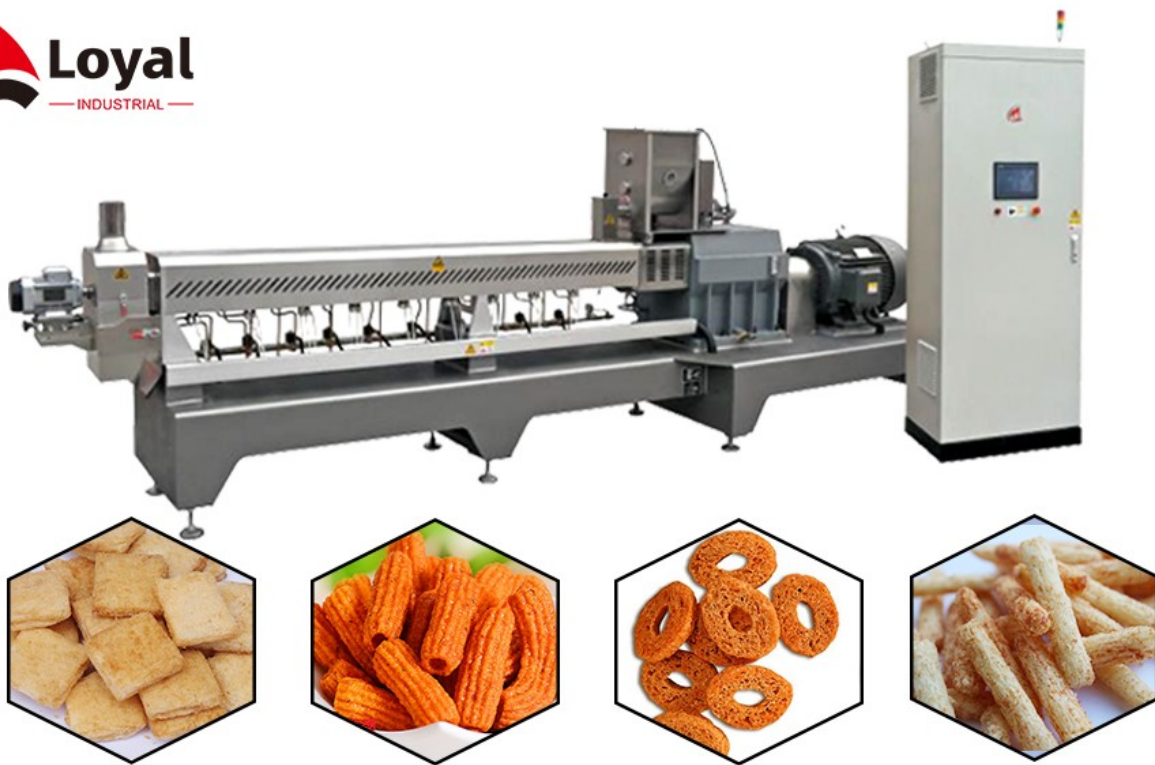
We are proud to serve global customers, who are not only in China, but also in Canada, the United States, South Korea, Nigeria, Zimbabwe, Afghanistan, Algeria, Ghana, India, France, the Philippines, Malaysia and Sri Lanka. Our customers include many large food companies that are leading the global food 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.



## 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/>