

# What is extrusion in food processing?

The food processing industry is an essential part of our lives, providing us with a wide variety of delicacies. With the promotion of technology, highly automated mechanical production methods have become the key theme in the food processing industry.

Extruders are one of the most widely used food machines and are almost closely related to our lives, as many of the foods we consume come from extruders. In addition, extruders use advanced extrusion technology to produce delicious and nutritious food. So what exactly is the extrusion technology in food processing?



**What is extrusion in food processing?**

Professional technical article Top six best-selling food

extruders in 2021 show that food extrusion technology is an advanced technology in the food processing industry. Its main application is food extrusion equipment. And food extrusion mainly refers to the material in the extrusion equipment through the rotating screw to complete a variety of extrusion processing.

Extruded food production is the mixing, crushing, cooking, sterilization, molding, and partial dehydration of cereal raw materials and ingredients, etc., in one extruder. The extruder mainly includes transmission, feeding device, barrel, screw, head, mouth die, and other six parts.

Food materials into the extruder, through the extruder process, will complete the extrusion production. We can roughly divide Food extrusion production into three steps.

### **The three steps of food extrusion**

1. Feeding and conveying section
2. Compression and melting section
3. Metering and homogenization section

The feeding and conveying section means that when the food material enters the barrel from the hopper, the screw will rotate and push forward. Thus the screw will bring the food material forward with the push. In this stage, the nature of the food ingredients will not change.

The melt compression stage is the stage where the raw material is gradually compacted and compressed by the resistance of the head as it moves forward. While the extruder is operating, the barrels outside will be heated and transferred to the raw materials by heat conduction. When the food raw materials are vigorously stirred, mixed, and sheared between the screw and the machine brief, it generates heat. Finally, the temperature will rise, making the food raw materials reach the molten state.

The metering homogenization section means that as the temperature rises, the food raw materials are cooked and complex biochemical reactions. Such as starch materialization, fat, and protein denaturation occur. The tissues are further homogenized and finally extruded evenly by the head channel in a quantitative and constant pressure.

The extruder can produce many different types of food based on this principle, such as casual puffed food, soy protein meat, and animal feed, and the extruder has become a pivotal piece of equipment in the food processing industry.

During the production process, by changing the shape of the eyelet of the head die, a variety of patterns can be obtained, such as macaroni noodles, triangular puffed food, and small particle cookies.

Today's food processors have reached a consensus: it is necessary to use a high-quality [Food Extruder Machine](#) to produce high-quality food. What kind of advantages of the extruder attract so many manufacturers to use it?

### **The advantages of extruder machine**

1. Simple design, low price, a wide range of applications, can produce various types of food.
2. Can retain most of the nutrition in the raw materials.
3. High production efficiency and good production quality.
4. Made of stainless steel parts, sturdy and durable, enduring use time.
5. Self-cleaning function is more clean and hygienic, making cleaning more convenient.
6. Compact structure, small footprint.
7. The highly automated production method and PLC control system improve production efficiency and reduce labor costs.



**Food Extruder Machine** is the best equipment for manufacturers to improve production efficiency and production quality. If you also want to reap high profits in the food processing industry, welcome contact us. We will provide you with the most suitable extruder for you. We are a professional manufacturer of food processing machinery. We master the most advanced extrusion technology and help many enterprises to reap success.

We are willing to cooperate with customers sincerely, mutual benefit and win-win is our goal, looking forward to your arrival!