

# What is extrusion molding machine?

The principle of extrusion molding machine?

The classification of extrusion molding machine?

What is the composition of the extrusion molding machine?

With the promotion of science and technology, the food processing industry has made significant progress. The traditional manual labor has been eliminated in production, replaced by mechanized production methods. Not only the production efficiency has been greatly improved, but the quality of food has also been greatly guaranteed.

Many of the foods we eat are produced by extrusion molding machines, which can change the shape and structure of the material in a short time, giving the material a unique taste, and the food produced is prevalent. So what exactly is an extrusion molding machine?

## What is extrusion molding machine?

Extrusion molding machine belongs to one of the types of plastic machinery, originated in the 18th century. The extrusion molding machine is a kind of food processing equipment that mainly relies on the pressure and shear force generated by the rotation of the screw so that the material can be fully plasticized and uniformly mixed and finally formed through a die.



Extrusion molding machines are used in a wide range of applications, such as snack foods, soy protein foods, and macaroni are produced using this equipment. Extrusion molding machines can produce a variety of very different food products, so what kind of principle does it use?

### **The principle of extrusion molding machine?**

The extrusion molding process is a molding processing method with the most varieties, the most changes, the highest productivity, the strong adaptability, the wide range of uses, and the largest proportion of output in the food processing field. The production process of the extrusion molding machine is very short. Even the melting process may only take a few seconds, but its principle is very complex, using this powerful principle to produce many different types of food products.

Extrusion molding machines also come in different models and have many different types.

### **Classification of extrusion molding machines?**

Extrusion molding machines are divided into twin-screw extruders and single-screw extruders.

The difference between single-screw and twin-screw is that one is a screw, and the other is two screws, both driven by a motor, and the power varies depending on the screw.

At present, the single-screw extruder is the most widely used, suitable for general material extrusion processing. The twin-screw extruder has the characteristics of less heat generated by friction, more uniform shearing of the material, larger conveying capacity of the screw, more stable extrusion volume, longer material stays in the barrel, and uniform mixing.

The twin-screw extruder has good feeding characteristics, suitable for powder processing, and has better mixing, exhaust, reaction, and self-cleaning functions than a single-screw extruder.

Manufacturers will choose the specific type of extrusion molding machine to use according to their production needs. If you also want to buy an extrusion molding machine to use, please first carefully understand the basic composition of the extrusion molding machine.



## The composition of the extrusion molding machine?

### 1. Main machine

**Extrusion system:** It consists of a screw and barrel, which is the key part of the extruder. Its role is to plasticize the material and extrude the melt at a fixed quantity, pressure, and temperature.

**Transmission system:** drive the screw to provide the required torque and torque.

**Heating and cooling system:** to ensure that the temperature of the plastic and extrusion system meets the technological

requirements during the molding process.

## 2.Auxiliary machine

It consists of a head, shaping device, cooling device, traction device, coiling device, and cutting.

## 3.Control system

They are composed of electrical appliances, instruments, and actuators.

Role: control the main and auxiliary motors to meet the required speed and power; control the temperature, pressure, and flow of the primary and auxiliary machines to ensure the quality of the products; realize the automatic control of the extrusion unit to ensure the coordinated operation of the primary and auxiliary machines.

**Food Extruder Machine** can provide very great help to manufacturers. The equipment is made of food-grade stainless steel, which is long-lasting and not easy to be damaged. The production is highly automated, and the production efficiency and product quality are very high. **Food Extruder Machine** is favorable equipment for manufacturers to reduce production costs and expand the market scale.

If you need it, welcome to contact us, hope we can work together to further promote the development of the food processing industry!