

Factors affecting the quality of snack foods

Squeezed snack food occupies a large proportion in the whole extruded food. It is loved by people for its changeable appearance and flavor.

The second generation snack food is the most common product in the domestic market. Its technology is mainly through the [microwave drying machinery](#) and equipment extrusion molding and then drying, spraying, seasoning, get a better shape and flavor of the product.

[Extrusion food](#) processing technology is a new and high technology which integrates mixing, stirring, crushing, heating, cooking, sterilization, extrusion and molding. It has not been used long in China, but it has been popularized and applied rapidly because of its remarkable characteristics.



1 concept of food extrusion technology

Extrusion technology is a kind of method that the material is forced under a series of conditions to pass through a certain form of mold at a predetermined pressure speed to produce various products of predetermined shape and performance.

Food extrusion is the pretreatment of food materials.

(crushing, humidifying, mixing) placed in an extruder by mechanical force through a specially designed orifice (die) to form a certain shape and structure of the product process.

2 principles and characteristics of extrusion processing

2.1 principle of extrusion process

Food materials with certain moisture content are subjected to the action of the screw thrust in the extruder, the blocking action of the inner wall of the sleeve, the reverse screw and the forming die, the heating action of the outer wall of the sleeve, and the heating action of the friction heat between the screw and the material and the sleeve, resulting in a great deal of friction heat and heat between the material and the sleeve. Heat conduction.

Under the action of these comprehensive factors, the material in the barrel is in a high pressure of 3-8 MPa and a high temperature of over 200 C. The pressure at this time exceeds the saturated vapor pressure of the water at the extrusion temperature. This makes the water in the material of the extruder sleeve not boiling and evaporating, and the material presents a melting state. Once the material is extruded from the die, it is pressed. The sudden drop of force is atmospheric pressure. Moisture in the material instantaneously evaporates and emits. The temperature drops to about 80 C, which makes the material become an expanding food with a certain porous structure.

2.2 characteristics of extrusion processing

2.2.1 has a wide range of applications and many kinds of products.

2.2.2 has high production efficiency and low energy consumption.

2.2.3 raw material utilization rate is high, no pollution.

2.2.4 less nutrient loss, easy to digest and absorb

2.2.5 good taste and easy to eat.

The nutritional components of many whole grains rich in minerals, vitamins and essential amino acids, which accords with human nutritional needs. However, coarse grains are often neglected because of their rough taste.

Coarse grains by means of extrusion, microstructure, density and material can change the rehydration of the product, soft texture, improve the taste and flavor. In addition, products after extrusion, the texture is sponge like porous structure, strong absorption, easy water recovery, so whether or direct edible Chongdiao edible convenient.