

Analysis of potato chips processing technology

Potato is a high-yielding cash crop with low cost, quick response and high yield, which is planted in most parts of the world. Potatoes are widely used as food raw materials. They can be eaten directly as staple food, vegetables and vegetables, and can also be further processed. They have good prospects for development.



Potatoes processed by [microwave drying machine](#) can be used to make starch, vermicelli, chips, chips and other products. Compared with raw materials, the value of processed products can be increased several times or even tens of times. Especially, all kinds of snacks with potatoes as raw materials are loved by consumers. They are popular all over the world and are produced and sold. Very exuberant [1]. Potato chips are one of the most popular products in potato industry because of their crisp texture and various flavors. At present, the potato chips on the market can be divided into two categories, namely, sliced potato chips and composite potato chips, which are [snack food machine](#).

1 slice potato chips processing

Sliced potato chips are directly cut into slices about 1.5mm thick, fried or baked, forming a dry and crisp product [2], such chips are affected by the shape of raw materials size and shape.

fried potato chips

process flow

Raw material selection, skin peeling, dressing, slicing, rinsing, blanching, dehydration, frying, seasoning and packaging.

Key points of operation

raw material selection: to select qualified raw materials, we must first select the bell with high dry matter content.

1. In addition, potato varieties should be kept fresh and mouldy and rotten. The mass is between 100g-150g and the diameter is between 50-70mm.
 2. peeling: remove dirt from raw materials. Use mechanical friction peeling, time should not be too long, generally about 3-8 minutes, require the skin, the appearance of clean.
 3. Trimming and slicing: Take the edible part of the potato, trimming the irregular shape of the raw materials to ensure the normal shape of the finished potato chips. The raw material for dressing is cut into thin slices with thickness of 1.5mm or so by slicing machine.
 4. Rinse: The sliced potatoes are rinsed in water to prevent browning due to exposure to air. In addition, rinsing removes free starch from raw materials to improve frying quality.
 5. Blanching: Temperature is generally controlled between 80 and 100 degrees Celsius, the purpose of this step is to destroy the enzyme activity in raw materials through high temperature, and optimize the structure of the slices. Blanching time is controlled at 1-2min.
 6. Dehydration: Disperse and spread the blanched slices, and remove the residual moisture on the surface by natural or artificial methods.
 7. Frying: Palm oil is the best choice for fried potato chips. The temperature of frying is between 160 and 200 degrees Celsius. The frying time is usually 2 minutes.
 8. Deoiling and Seasoning: Fried potato chips are processed by vibrating deoiler to remove the remaining oil from the surface and then blended into a variety of flavors, such as tomato flavor, barbecue flavor, etc.
- 9) Cooling packaging: the seasoned potato chips are cooled to room temperature, packed quantitatively according to production requirements, and packed in aluminum-plastic composite bags filled with vacuum nitrogen to extend the shelf life.

baking potato chips processing

process flow

Raw material selection cleaning slicing rinsing color protection blanching drying baking seasoning cooling
sorting packaging

Key points of operation

1) slice and rinse: cut the skinned potatoes into thin sheets.

About 2mm, dip the raw material into the water to wash the surface starch. 2) color protection: it can be used.

0.25% sulfite solution for color protection. 3) Blanching: blanching for 1-2 minutes at 80-100 degrees Celsius, making the raw material more transparent, losing its original hardness, but not soft. 4) drying: it can be treated by natural drying or artificial drying. Natural drying is the drying of potato chips under the sun.