

# Automatic Fried Potato Chips Making Process

Automatic fried potato chips making machine are a kind of convenient food made from fresh potatoes as raw materials, after washing, peeling, slicing and seasoning. It is favored by people for its crisp and crisp fragrance, rich nutrition, suitable for all ages and low price. Fried potato chips are fried at high temperature for a short time and dehydrated rapidly. Compared with traditional processing methods such as frying and stewing, it effectively prevents the loss of water-soluble nutrients in potatoes during processing.

## AUTOMATIC POTATO CHIPS MAKING MACHINE PROJECT

potato chips production line capacity	50-500kg/h
100kg/h fresh potato chips making machine	
Need Material amount: up 500kg/h	Output: 100kg/h for potato chips

## Potato Chips Making Machine Raw Material & Products Quality Target

1	Raw material standard	
		Fresh potato, no rot, no deterioration, no plant diseases and insect pests; no concave on the head of potato, surface smooth, no crack and hollow
		Dry matter content?21%
		deoxidize sugar content ?0.2%
		potato size : 40?60mm; The best potato is Atlantic potato.
2	Products: Potato chips Sense requirement	

		<p>Color&amp; luster: surface should be white or yellow, the color and luster should be uniform;</p> <p>Flavor&amp; taste: should possess special potato fragrance, no other peculiar smell.</p> <p>Physicsand chemistry target?</p> <p>moisture: 1?3%</p> <p>fat: ?38%</p> <p>oil content ?40 % , SO2 ? 50ppm ,</p>
<p>Thepotato chips can be stored for 6 months at room temperature.</p> <p>Sanitation Target: Accord with industry standard</p>		

**Potato chips production line Communal condition index**

Steam:0.3/h	Pressure:0.8MPa
Heating power:300 000 kcal	Water consumption: 5.0t/h, drinking water.
Pressing air(0.8Mpa)?0.5m <sup>3</sup> /h	Workshop acreage: 300m <sup>2</sup> (exclude frozen warehouse)
	15 worker including engineer
Power: Equipment powder 35kW?220/380V5%?50Hz1%( does not includes frozen warehouse, boiler, and lighting system)	

## FRESH POTATO CHIPS PROCESS MANUFACTURING PROCESS FLOW

Raw material preparation: De-stoning—Washing---peeling----checking----cutting--- Grading--- Blanching—Conditioning--- Drying—Frying----Oil Draining--- ----Flavoring-----Weighing and Package

## FRESH POTATO CHIPS MAKING MACHINE WORKING PROCESS

?Raw material selection: Choose fresh potatoes with high dry matter content, which requires pure varieties, shallow bud eyes, regular shape, no moldy rot, no germination and insect pests, and the diameter is between 50 and 70 mm.

?Cleaning: Rolling cleaning machine is used to remove debris and other debris from the raw materials.

?Peeling: Use mechanical friction peeling, feeding 30 ? 40 kg at a time, the peeling time

depends on the freshness of the raw material, generally 3~8 min. The peeled potatoes are required to have a clean outer skin and a clean appearance. The peeling time should not be too long to avoid excessive peeling and increase the rate of material loss.

?Finishing: remove the inedible parts such as bud eyes and mildew on the raw material, And shaping some irregular raw materials.

?Slicing: The raw materials are fed into the slicing machine in sequence, the feeding speed should be uniform, The slice thickness is between 1 and 2 mm.

?Rinse: The sliced ??potato chips must be immersed in water for rinsing to prevent the potato chips from being exposed to the air to oxidize and brown. At the same time, the free starch on the surface of the potato chips is washed away to prevent the starch from dissolving into the oil pot and affecting the service life of the fried oil.

?Color protection: The temperature of the color protection liquid should be controlled between 80~100 ℃, to achieve the purpose of destroying enzyme activity and improving tissue structure. The general blanching time is 1~2 min. In addition, a small amount of additives should be added to the color protection liquid.

?Dehydration: Spread the stacked materials on the splitter, and remove the surface moisture, so as not to increase the frying time and increase the oil content of the finished product.

?Frying: The flakes should enter the frypot evenly, the oil temperature should be controlled between 180~200 ℃, and the material must pass through the frypot within 2 minutes. Palm oil is mostly used for frying oil. Compared with other edible oils, it has the characteristics of good stability, long service life and good shortening performance. It is especially suitable for frying oil.

? De-oiling: After frying, the flakes are removed by vibrating de-oiling machine to prolong the shelf life of the product.

? Flavoring: After being flavored by a flavoring machine, fried potato chips with various flavors are prepared. According to different taste requirements, potato chips can have a variety of flavors such as chicken, beef, spicy and barbecue.

? Cooling: After cooling the flavored potato chips to room temperature, they can be packaged.

? Weighing and packaging: The product must be packed quantitatively, and the net content error  $< \pm$

10 %. In order to extend the shelf life, vacuum-filled aluminum-plastic composite bags are often used.