Instant noodle production line frying process and precautions

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Frying is a very important link in the production line of instant noodles, it not only makes the starch completely gelatinized, dehydrated, but also fixed shape. In the frying process, it is necessary to pay attention to controlling the transmission speed of the frying box and the front temperature, middle temperature and post temperature of the fryer to ensure the frying effect. The following will introduce the instant noodle production line frying process and precautions in detail.



1. The function of frying

- 1. Fully gelatinize the starch.
- 2. Dehydration.
- 3. Fixed shape.

2 Deep frying operation

On the instant noodle production line, the frying operation is achieved by controlling the transmission speed of the frying box and the front, middle, and back temperatures of the frying pan. Among them, the transmission speed of the frying box controls the frying time, while the front temperature, middle temperature, and back temperature are achieved by adjusting the oil flow rate.

3. Factors affecting the frying effect

1. Frying temperature: If the oil temperature is too low, the dough cannot be fully fried; If the temperature is too high, the dough will explode and burn. Frying is divided into three stages: in the low-temperature zone, the dough absorbs heat, the temperature rises, and dehydration begins; Entering the medium temperature zone, the

dough begins to dehydrate significantly, and oil seeps into the noodles; The moisture content in the high-temperature zone has basically stabilized and is no longer dehydrated. The temperature is similar to the oil temperature. This increases the gelatinization degree of starch, causing deep denaturation of proteins.



2. Frying time: Frying time is also an important factor affecting the frying effect. It interacts with the oil temperature. If the moisture content in the dough is determined and the oil temperature is low, the frying time will be long; High oil temperature and short frying time. The frying time is too short, the dough is not completely dehydrated, and it is not easy to store; If the time is too long, the dough will bubble and burn, affecting the quality of the dough and increasing costs.

- 3. Oil level: If the oil level is too low, the dough will dehydrate slowly, which may result in incomplete frying and fuel consumption; High oil level increases circulation and is prone to acidification. The unstable oil level has an impact on the gelatinization degree of the dough and the oil content of the product.
- 4. Oil quality: The content of saturated fatty acids in oil is low, and the oil is prone to spoilage. The product not only consumes a lot of fuel, but also is prone to spoilage. The quality of the oil is good, not only does it save fuel, but the quality of the fried dough is also very good. Palm oil with a melting point of 26-30 $\,^{\circ}$ C is generally used.
- 5. Fuel consumption and cake properties: Fuel consumption and cake properties can also affect the frying effect. If the dough is too thick or too thin, or if the ratio of flour to water is not appropriate, it will affect the frying effect. Meanwhile, if the fuel consumption is too high or too low, it will also affect the frying effect.



Matters needing attention

- 1. Always pay attention to the change of oil level during frying, if the oil level is too low or too high, it should be adjusted in time.
- 2. The frying temperature should be controlled within a suitable range, not too high or too low.
- 3. The frying time should be appropriate, not too short or too long.
- 4. The quality of grease is good, and the grease that meets the requirements should be used.
- 5. In the production process, the frying equipment and pipelines should be cleaned regularly to prevent grease residue and blockage.
- 6. Pay attention to safety in the production process to prevent burns and

other safety accidents.

In short, in the production line of instant noodles, frying is a very important link. In order to produce excellent quality and good taste instant noodles, we must master the technology and precautions of frying.