
Low temperature pulverizing process

We finally arrived at the method of “**low temperature pulverizing process**” for assimilating the greatest quantity of food materials.

The fundamental food pulverizing processes of our company are to preserve **the nutritional value, color and scent** at an average grain size in the range of **30~40 μ**.

The most important things are how to block conduction of frictional heat and to equalize the grain size.

The points of the process are as follows.

- Adjust the balance of the amount of input materials, rotation numbers and vacuum power.
- Moisture content is maintained at a certain level or below.
- Input materials are efficiently smashed each other.
- If necessary, use chiller(cooling apparatus) depending on the foods.
- Use shifter for selecting large sized grains and throwing them in again.

With this processing method, raw material receives less damage(stress), which makes it possible that the color of the food remains bright and the flavor and the tastes are condensed.

For successful products,

- grain size is to be around **30~40 μ**
- to make grain shape round as much as possible (with no sharp).
- to reduce large sized grain (over 100 μ).
- to make them dried.

SUMMARY OF THE FEATURES

- 1) Farm and marine products which are usually disposed of are utilized as foods.
- 2) Raw or blanching products such as vegetables, fruits and marine products are available for pulverizing process.
- 3) With no damage, low temperature process makes it possible to preserve the nutritional value, color and scent.
- 4) Grain shape is small and round, which achieves smooth and palatable.
- 5) It is possible to be stored for long periods by keeping water activity level 0.5 or less.
- 6) Miniaturization of pulverizing facility is equipped to deal with small lot request. (2-10kg/hour)
- 7) Drying by commissioning is main, however we also provide a set of process from purveyance to drying

if necessary. Moreover, acceptable from cropping.

8) Also, oily soy, brown rice and fruits with high sugar content are processable.

9) No additives in the pulverizing process.

SUMMARY OF THE PROBLEMS

1) As a result of careful thinking in line with reflecting nature without seeking efficiency and quantity, this process is treated by small machine and a large order is unacceptable.

2) It is impossible to specify the grain size. Seeking for fine and round grain shape and the difference of the process level depending on foods are the factors.

3) You may have a sensation of relatively expensive due to long-term process and small lot.

4) Foods having high oil content are unworkable. (dried solid material turns to be high clayey oil during the pulverizing process)

5) Foods with high sugar or salt content are not acceptable. (dried solid material turns to be set during the pulverizing process)

6) Foods whose smells linger in are unacceptable. (Garlic, Japanese pepper and so on)

We also provide small lot filling process.

Original small lot filling apparatus is used for the amount of 10 g ~ 200 g.

You can try out our pulverizing process.

Please prepare approximately 5kg of a dried product for one trial. It costs 20,000~40,000 JPY depending on a processing content.

Grain size distribution data during process will be attached.