



# VEGETABLES & FRUITS PROCESSING LINE OF IQF-FREEZING PRETREATMENT



The vegetable and fruit processing equipments are special for quick-freezing pretreatment. There are several machines to constitute a line. This line absorbs advanced vegetable and fruit processing technologies. It is widely used in domestic and international foodstuff industry. It is a completely automatic processing line. Practices in hundreds of food processing factories in home and abroad demonstrate the advantages: scientific design, rational layout, reliable running, convenient operation, extensive commonality in vegetable processing, efficient processing, saving investment and energy, It is the most ideal, advanced and economical processing line. for vegetable and fruit quick freezing pretreatment.

Processing vegetables: Sword bean, young soya bean, pea, Dutch bean, maize grain, asparagus, common calla, taro, mushroom, cauliflower, lotus root, onion, etc.

## Workmanship of Processing

Pretreatment (Picking, sorting, cutting, peeling, slicing) → Bubble cleaning → Screw blanching or Net-belt blanching → Precooling in lukewarm water → Ice water cooling → Vibration water Dropping → Quick-freezing

## Features

- 1 Each case is made a thorough improvement of its convex-shaped bottom design and drainage in side, so it is more convenient to equipment cleansing and draining.



2 Spiral blancher roller is double-body structure, so that materials do not jump in blanching, it makes blanch more completely, blancher also has automatic temperature controlling system which control the blanching temperature in accordance with the requirements of food strictly.

3 Ice water cooler is designed as separate unit, it forces the low-temperature water under the coils to the food material directly by the circulating pump, and the cooling effect is good. Water consumption decreased significantly as a result of the cooling water cyclic utilization.

4 Vibration water dropper material plates adopt step-style design; the plate is made of stainless steel strip plate with hole, water dropping is efficient. Material plate is detachable to clean conveniently.

5 All the motors of belt conveying (except the spiral blancher, auto feeder motor) are UDL series cone-disk variable speed shaft-hole-installed motor, which is combined with the worm gear reducer. For this structural design, inlet and outlet expect to be overlap configuration, so that the junction between the devices can be expected to lose less or lose nothing. It is a solution to the food material losing in vegetable processing enterprises for long time.

## Equipments in Line

### 1 Selecting conveyer ( custom length)

The structure is made of the complete stainless steel; the speed of the conveyer can be adjusted. Its length is according to clients' demand.



### 2 Bubble cleaning machine

Bubble cleaning machine is designed for the food material with high request in shape. High airflow mixed water washes the food material to avoid colliding to each other. The materials are washed by the high pressure water intensity and efficiently. Allow to continuous operations. It is an indispensable washing device for the fruit and vegetable processing of quick freezing pretreatment. It made by stainless steel completely, Portion water recycling and stepless speed regulation.



### 3.1 Screw blancher

This is a main device for raw material the process of scalding vegetables in boiling or steaming water for a short time. This device feed the materials automatically. The rolling speed is





adjusted by YCT series of electromagnetic speed controller, constant torque stepless speed regulation. Scalding temperature shows in the digital temperature-regulating screen.  
Application: stem vegetables, cabbage, carrots, green bean, garlic bolt, taro seeds and so on.

### 3.2 Belt blancher

Mesh-belt blanching machine - the device apply to scald vegetables, fruits. The water temperature is controlled by the auto-temperature controller; speed is adopted stepless speed adjustment. The steam form boiler enters the blancher across the steam pipe set by the electromagnetic valve control. The raw materials are scalded through the automatic control net belt with a certain temperature and time soaking. Then turn the next a process.  
Note: select one of the two kinds blanchers according to the food materials



### 4 Norman & Ice water cooler

As soon as blanching are completed, cool vegetables thoroughly by plunging in cold running water or ice. Lukewarm water cooler is first time cooling to reduce the material temperature to 30-40°C, ice water cooler is the second cooling to reduce the temperature to 10°C which is the proper temperature for quick freezing. The group of two sets achieves good effect in cooling, and saves plenty of water.



### 6 Vibration water-dropping



When plenty of water goes into quick-freezing machines, the final quick-frozen products quality will be affected, it is necessary to remove the moisture in the surface of food material, vibration water dropper can remove part of the water in the surface. You can adjust amplitude to control vibration strength. That equipment applies to process soybeans, corn, small peas, and other small granule of fruit and vegetable.

### 7 Elevator & Vibration feeder

The processed vegetables and fruits were lifted to vibration feeder by elevator. Vibration feeder covers the material in quick freezer belt evenly.

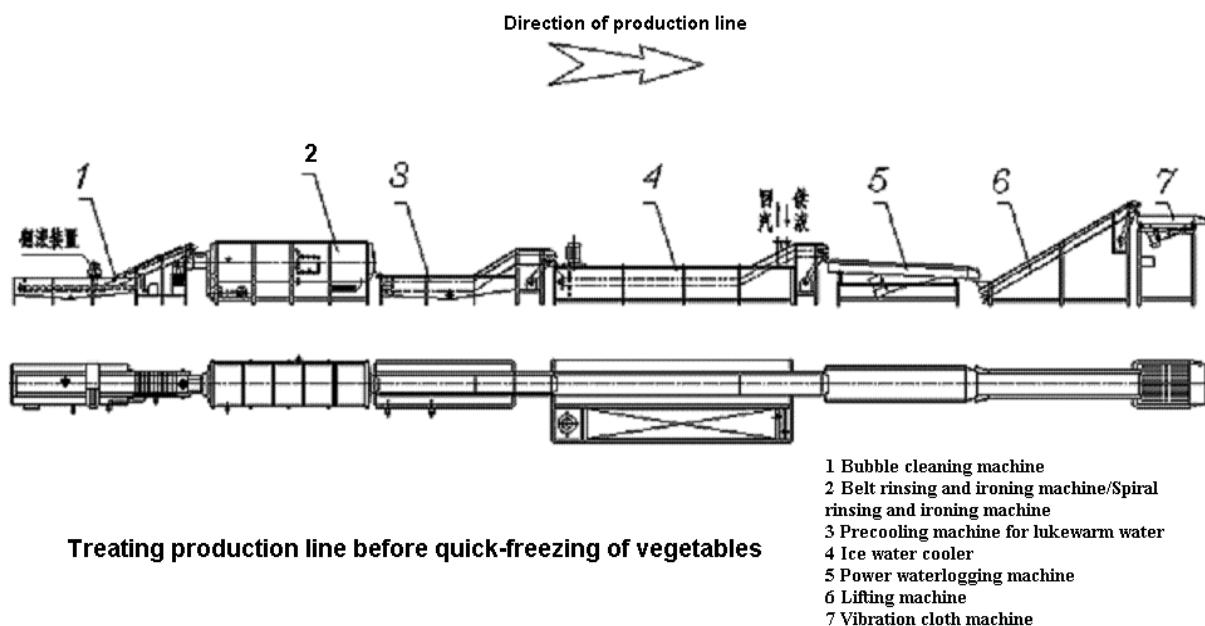




## Parameters of Processing Line

Model Item	VP—1	VP—2	VP—3	VP—4
Processing capacity (green bean) Kg/h	1000	2000	3000	4000
Water consumption T/h	6	8	10	12
Steam consumption T/h	0.5	1	1.5	2
Process time		10-15 min		
Total power Kw	9	10	10.5	11
Overall size (L×W)m	22.5 × 1.75	23.8 × 1.85	26.5 × 1.85	28.5 × 1.85

## The drawing of Processing Line



### Technical Changes

The data and illustrations in this catalogue are not binding and only provide an approximate description. We reserve the right to make changes to the product delivered compared with the data and illustrations in this catalogue, e.g. in respect of technical data, design, fittings, material and external appearance.

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