What changes are prone to occur in the production quick-frozen fruits and vegetables

Detail Introduction :

At present, convenient quick-frozen foods have entered our lives, especially quick-frozen fruits and vegetables. So do you know what changes have taken place in the production of quick-frozen fruits a vegetables?

1. Collapse of cells.

Vacuoles are cells that contain a lot of water in plant tissues. During the freezing process of quick-fro and vegetables, it is easy to freeze into large ice crystals, resulting in greater pressure, and cells are e damaged by rupture. On the other hand, the cell walls of plant tissues are relatively thick and inelasti are easily punctured or burst by large ice crystals.Freezing treatment increases the permeability of ce membranes or cell walls to moisture and ions.

2.Mechanical damage.

The first formation of ice crystals is the free water in the intercellular space, which generally contains soluble substances and has a high freezing point. However, the intracellular protoplast remains supe and the supercooled water in the cell has a higher vapor pressure and free energy than the ice crysta the cell, thus prompting the intracellular water to move to the intercellular space and continuously bi intercellular space ice nuclei. At the same time, the ice crystals formed in the intercellular space beco larger and larger, resulting in mechanical extrusion, causing the separation of the originally combined After thawing, it cannot be restored to its original state, and it cannot absorb the water produced by t melting of ice crystals and flow out the juice, and the tissue becomes soft.