



Sorting and Feeding of Bags of Mustard, Curry, Wood Skewers



Feeding & Handling System
Ref. 179



Description:

Sector

Food manufacturers (convenience products from the area of sausage goods)

Component

Foil bag with packaged mustard, curry or wooden skewers

Technical Requirements

The foil bags must be pre-sorted and laid onto a conveyor. A customer robot grasps the bag from the conveyor and lays this in the outer packaging of a prepared food. It is essential for the operation that a minimum quantity of products is lying available on the conveyor in a defined frame-area of observation, the position of which can be recognized by the camera system of a robot cell. The bags may not be laid on top of each other or touching each other.

Operation Description

A large-volume vibration hopper doses the bags onto a multi-track linear sorter. The bags are oriented lengthwise on the sorting track. Double-lying products are sorted out. All sorting tracks pass to a common outlet conveyor.

The arrangement equipment is so designed that the filling of all tracks occurs as uniformly as possible. Unavoidable fluctuations are balanced out through the number of the tracks so that per-time unit in the average time, the required minimum quantity of bags lies available in the robots frame-area of observation.

Sorted-out bags as well as such which the robot cannot grasp are passed over a return feed conveyor into the hopper.

Performance

120 bags per minute. In the robot's frame-area of observation (dimensions 360 x 300 mm) a minimum of 2.3 bags must lie available per second.

Control

Comprehensive control with PLC to control the filling of the sorter.

Elements of the Feeding System

Vibration hopper, linear sorter, outlet conveyor, return-feed conveyor, control unit.

Design

Food-Product Suitable design

