



WALNUTS SORTER LINE

Extrasorter 3w for sorting whole walnuts

This new machine features avant-guard electronic technology and thanks to its size, it is particularly adaptable to high-capacity production lines, as it is able to reach a maximum circumference radius of

150 cm, plus a loading capacity for walnuts of 20 t/h (Extrasorter 150 3W). In fact, the sorting system is available in different formats (25, 75, 100 and 150) and is able to adapt to different production lines and capacities.

The sorter consists of:

- two vision units
- a cleaning and washing system for the vision units
- two ejection units
- a frame suitable for the conveyor and motorisation system
- a power panel containing the electronic command circuit



WORLD FIRST

VISION SYSTEM

The vision system consists of a lighting device based on high-intensity LED technology using six different wavelengths (i.e. esachromatic technology) that is able to identify and discard unwanted walnuts according to colour and detect the presence of foreign bodies.

Also, the infrared background contrast enables to effectively detect the colour black (i.e. rotten walnuts, foreign matter, etc.)

IMAGE CAPTURE SYSTEM

The opposite sides of the product are inspected rapidly and simultaneously by high-precision and highly sensitive sensors, thus ensuring a homogeneous, 360° inspection. Two completely independent lighting and vision units are used here. They are placed at the exit of the conveyor belt and inspect the product from both the upper and lower side.

The central processing unit analyses and correlates the captured images, defining the types of defects that are to be discarded based on the preset operating mode.

The software installed on the machine is able to identify vegetables according to a given colour and enables to achieve the following results:

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- Green walnuts are detected and discarded
- Rotten walnuts are detected and discarded
- Foreign bodies including leaves, branches, pieces of wood, stones, fabric, insects, tin and plastic are detected and discarded.

Foreign bodies can be of whatever colour, even the same colour as vegetables.

The vision unit comprises a cleaning system with a timer managed by the relevant control unit.

The cleaning system comprises a washing device specifically designed to avoid resorting to a dry cleaning procedure to clean the protective glass.

The unit is enclosed in an electrical panel with protection class IP65.

EJECTION

The pneumatic ejection system, for the machine running at full capacity, is comprised of 60 electro-pneumatic ejectors.

The two ejection units are placed right next to the vision system.

The two ejection units are independent and can be programmed to discard two different kinds of defects.



ELECTRONIC INSPECTION SYSTEMS AND MACHINES FOR THE FOOD INDUSTRY

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