

ESVS

Vision System





VISION SYSTEM



ESPERA developed a cost-effective Vision Control System that verifies packed food - but also any other kind of packages - fully automatic according to different criteria by the use of high-resolution line scan cameras. Thereby a 100 % control, independent of personal, of packed and labelled products with absolute precision can be realised at high speed.

With the increased automation degree the Vision System ESVS assures the retention of process stability and quality control.

The construction on a transport system allows the control of packages from the top as well as from the bottom side. The top system consists of a fixed housing with a vertically movable line scan camera including illumination unit. The distance between the top edge of the packaging and the illumination unit is constructional fixed and stays always constant. Different heights are compensated automatically as the line scan camera as well as the illumination unit moves automatically to the correct height. The bottom camera system including illumination unit is fixed.



The ESVS enables the control of the localisation, check on attendance, position detection and a package individual control. For example the position can be checked as well as the dimensions of a package, the used foil, the barcode, position and content of the applied labels. The ESVS system is equipped with an automatic optical character recognition (OCR).

Optionally the ESVS can also check the sealed seam and detects leaks resp. foreign materials on the seam. Opposite to the often used method to detect leaks mechanically by the compression, the ESVS detects also the smallest leaks.

A reference package is the base for the control. By use of the interactive ESVS software all elements to be controlled as well as the acceptable tolerances can be set easily. All necessary data for the selected element to be controlled are requested automatically by the system. In this mode it is also possible to change the pre-sets for the reference package without new learn-in.

Check and Stop Criteria*:

- Package dimensions and outlines
- Label position and turning
- Label contents, such as but not limited to texts, basic price, weight, price
- Barcode: readability and content
- Logos
- Foil Print, such as but not limited to texts, barcodes
- Check of sealed seam
- Stop after x faulty packages in a row
- Stop x % faulty packages
- Stop x faulty packages

*Only examples, further criteria and reports are available.

Statistical Reports*:

- Checked packages
- Correct packages
- Rejected packages
- Actual amount of packages per minute
- Average amount of packages per minute
- Start and stop time
- Last 20 packages sorted by
 - package number
 - error time
 - error cause
 - camera

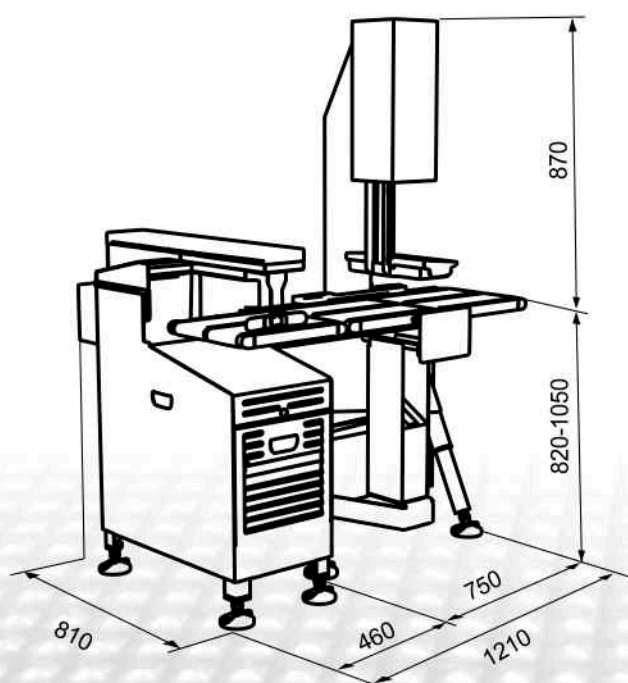
Model	ESVS Vision System
Camera	top and / or bottom optional protection for bottom camera
Performance	up to 150 packages per minute
Product Height	automatic camera setting of up to 200 mm
Transport	one-belt conveyor operating direction RL or LR
Reject stations	Airjet sorter for packages of up to 500 g Mechanical pusher for packages of up to 3 kg Detector for rejected packages Fill level control of the sorter box Lockable sorter box for product heights of up to 120 mm, optional up to 200 mm
Interfaces	Ethernet external USB keyboard and screen Terminal ESC for combination with an ESPERA weigh price labeller
Network	remote control via PC

The ESVS ensures that the products have been packed correctly to the pre-defined settings, that all necessary information is on the package. Thereby the ESVS helps to avoid return consignments and also expensive recall campaigns.

The pictures can optionally be stored, e.g. under the referring batch number.

Perfectly coordinated:

In connection with an ESPERA weigh price labelling machine the control of the whole line will be done by the terminal, ESC 964. Furtheron additional sorting criteria are available.



ESVS in connection
with an ES 7001



ESVS in connection
with an ES 5911



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