X-RAY FULL CONTAINER INSPECTION MACHINE
to control products in glass jars, glass bottles, tinplate cans, carton bricks, plastic containers.
X-ray is a valid method for tracing and rejecting various types of (high density) contaminants. The minimum size is strongly affected by the type of container, its shape and the type of product it contains:

- Glass fragments with sizes from 3x3x3 mm (glass in glass)
- Metal fragments (iron, steel, copper, etc.), with sizes from 1x1x1 mm
- Stones and bones with sizes from 3x3x3 mm
- Some plastics and rubbers depending on the composition and relative density.

The effectiveness of the control, as well as the minimum detectable defect, is proportionate to the minimum number of false rejects, which in Raytec systems is considered to be 3/1000 inspected products.

In addition to detecting foreign bodies, it is also possible to control:

- The shape and conformity of the container (such as dents or breakages)
- Filling level
- Easy Open side in tinplate cans.

**Raybox main characteristics:**

- Standard View;
- High flexibility in product changeover to inspect different kind of containers;
- Possibility to inspect small and big cans (up to 5 kg);
- Low X-Ray emission 0.1 µsv;
- Compact design to be installed in tight spaces;
- High capacity (up to 2000 cpm).

**Raybox Panoramic**

- Panoramic View and Standard View;
- High flexibility in product changeover to inspect different kind of containers;
- Possibility to inspect tinplate cans and glass jars;
- Low X-Ray emission 0.1 µsv;
- Compact design to be installed in tight spaces;
- High capacity (up to 2000 cpm).
VIEWING TECHNIQUE
The years of development and accumulated experience in the field of Panoramic vision are confirmed by RAYBOX, which offers increased performance thanks to the new algorithms implemented in the system. Contrary to other systems present on the market, the ray-emission lamp is automatically oriented by the software to obtain a better image of both the jar and its base.

MONOBLOCK GENERATOR
One of the main intentions of the RAYBOX project was to eliminate some of the weak points in generating X-rays. While maintaining its ability to be fitted with all generators and lamps available on the market, this new inspection machine uses a monoblock generator-lamp unit (with no high-voltage cable) that increases reliability and reduces maintenance costs.

REJECTS
RAYBOX can be fitted with a single or multiple expulsion system positioned outside the machine, both of which are controlled by an automatism that assures not only the synchronisation of the expulsion of the rejected jar, but also monitors its effective expulsion. The reject system is positioned outside the machine to facilitate reject condition monitoring.

3 WAY REJECTION
Thanks to the presence of two distinct reject systems, RAYBOX allows to differentiate contaminated tins from tins whose easy open lid is upside down (available for 1/2 kg cans). Those tins are conveyed to a twisting unit and return in line.
TECHNICAL FEATURES

- Typical inspectable containers: Glass Jars, Tinplate Cans, Carton Bricks, Plastic Jars
- Max diameter: 155 mm [6"]
- Max inspection speed: 100 m/min (Standard 45 m/min) [328 ft/min (Standard 147 ft/min)]
- Sensor height: 307 mm [12"]
- Ejection type: 0.4x0.4 mm – 0.8x0.8 mm [0.015"x0.015” – 0.031"x0.031”]
- Operator interface: Electro pneumatic Cylinder
- External and/or remote access: 17” color touch-screen monitor
- Frame material: Ethernet or modem
- Sensor protection degree: AISI 304
- Power supply and consumption: IP55
- Machine power supply: 3PH + GND
- Machine voltage: 400 V
- Frequency: 50 HZ
- Power absorption (2motors): 3 kW
- Processing unit power absorption: 500 W
- High Voltage generator: 300 W – 1kW
- Electrical switchboard protection degree: IP55
- Compressed Air: 4÷6 bar [58÷87 psi]
- Operating pressure: 50 Nl/min [1.76 Ncuft/min]**

Note: (*) max presion 18bar - (**) depending on rejected product - (***) with generator of 1kW.

All characteristics listed above are not binding and are subjected to change without previous notice.