Food X-ray Inspection

DYLOG®
**H I T E C H**

DYMOND 120

DYMOND FLAT BED MACHINE

The use of advanced components and an attentive, innovative and compact design, together with a high-performance and intuitive software allows Dymond machines to be fit for the ever higher standards set by food and pharmaceutical companies.

ADVANTAGES OF X-RAY INSPECTION

This is a **non-destructive analysis**, which, without altering the chemical composition or the organoleptic properties of the products, detects contaminants inside them (in any type of container or package) and verifies their wholeness and conformity.
Contaminants having a density higher than the density of the inspected products (metals, glass, highly calcified bones, stones, shells, ceramics, PVC, Viton®) will no longer be a problem.
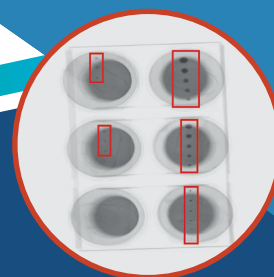
X-RAY POWER	POINT OF VIEW	PRODUCTS
200 W **500 W**		
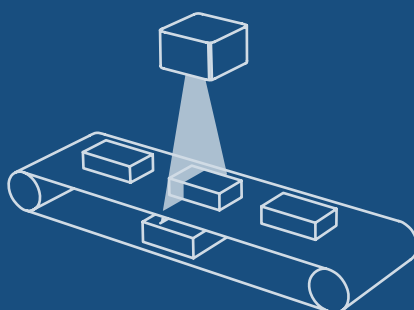
Hardware

The Dymond Series is the culmination of years of development aimed to design a family of **modular and versatile machines** for the inspection of bags, pouches, trays, carton boxes and any other soft packaged product.

The product handling system can be customized to process **any kind of bulk product.**

The **air cooling system** allows the machine to work in a wide range of temperature, without the need of an external water cooling system normally used with more powerful machines.

The conveyor belt length is configurable according to the needs of the customer and the available space. Thanks to the new drum motor system, the machine lenght can be reduced to 1,4 m (minimum) and the system can be **easily integrated in the existing production line** (no issues with the standard external motors bulkiness).

The maintenance is extremely simple and quick: each main component (belt, curtains, generator and detector) is easily accessible and removable thanks to the new design.

With full range of rejection systems and modular rejection boxes (Stainless Steel made), it is always possible to select the best solution for every product.

The Clear–View version of Dymond machines has the front door equipped with a **lead glass window** allowing the operator to visually check the products during the inspection.

Software

The Dylog contaminant detection software ensures a high performance level; thanks to new filtering technology and parallel elaboration, **the X-ray images are almost noiseless** with a high contrast level even at high product speed.

Missing product parts **can be identified** and the total or partial weight of the product can be checked thanks to intuitive, configurable masks.

The multi-lane inspection, up to max 8 lanes, is perfect for a total flexibility rejecting contaminated products.

The machine can be controlled from remote and features a **5-level password security system** allowing to track the activity of each operator, logging in with a unique password.
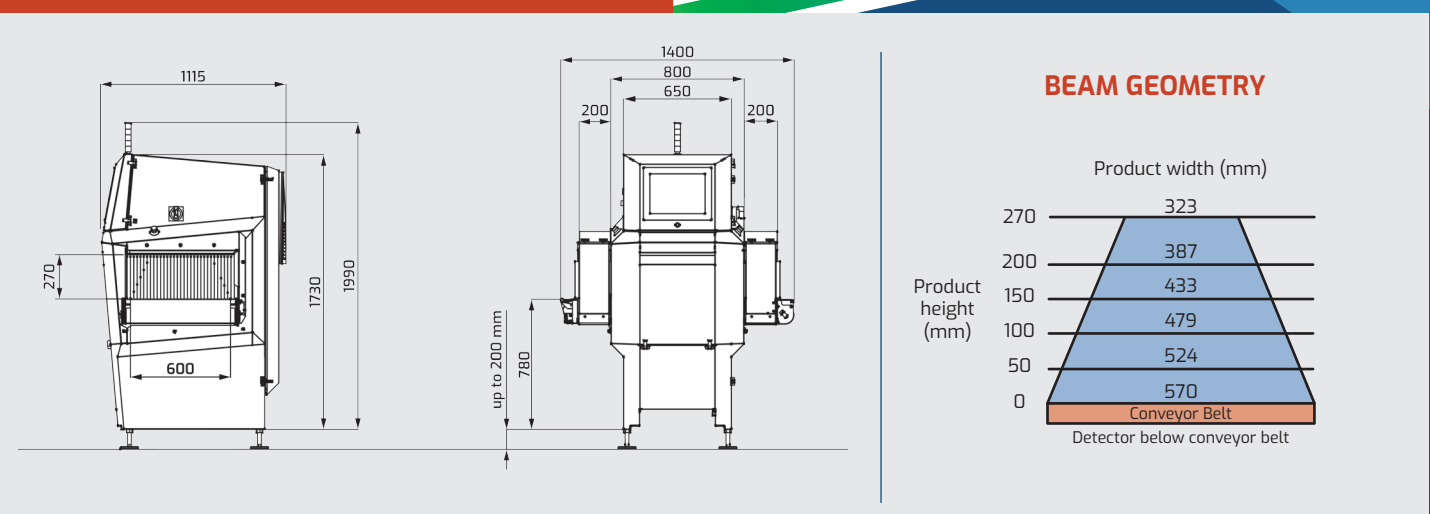
Production and usage data are redundantly stored to grant top-notch level security, while the data accessibility is granted by easy to read automatic reports.

The system is **compatible with the strictest control protocols** implemented by the food industry largest companies.

Technical Features

Power	200 W – 500 W
Detector resolution	0.8 mm
Conveyor belt speed	Up to 80 m/min
Curtains	Lead-free
Safety switch / interlock	SIL 3 Category IV PLe, magnetic
HMI	15" LCD – touch screen
Operating temperature	5–40 °C
Relative humidity	20%–90% (non-condensing)
Power supply	230 VAC ±10% (standard) single-phase
Compressed air	5.5–6.9 bar
Cooling	Air conditioner 500–750 W (IP34 or Nema 4X–IP65)
Radiation protection	FDA CFR 21 part 1020.40
International Protection Rating (IP)	IP34 with standard air conditioner Nema 4X on request
Connectivity Options	Ethernet available with communication protocols: Modbus TCP (standard), OPC–DA, OPC–UA, XML messages on TCP, others on request
Production data trail	Complete records on parameters, users and products

Dimensions

BEAM GEOMETRY

Product width (mm)

Product height (mm)	
270	323
200	387
150	433
100	479
50	524
0	570

Conveyor Belt

Detector below conveyor belt