Food X-ray Inspection

DYLOG®
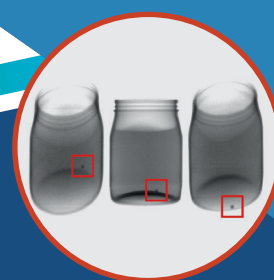
H I T E C H

DYMOND

DYMOND SIDE VIEW 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
3 x 1000 W		
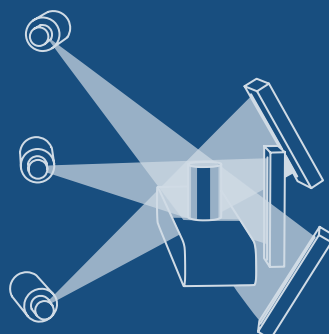
Hardware

Three x-ray tubes (orientable according to the product shape), thanks to a **reduced focal spot and a high quality level,** lead to top-notch performances consistent in time, with special focus on the bottom area of glass jars and bottles. This makes Dymond M **the perfect machine for the inspection of liquid products** in small glass jars and bottles.

Thanks to the adjustable triple beam technology (Dylog Hitech patent), Dymond M allows to achieve **the best performances in the whole product** (without blind spots).

Last generation detectors concur to optimal images apt to analyze complex products. The machine can be supplied with a complete handling system, a conveyor, a rejection device and collector, tailored on the products and the layout of the existing production line. The products can be reliably inspected with a mimimal spacing (about 2 cm), thus no mechanical spacing sytem is required.

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.

The innovative hardware design is coupled with an entirely new software interface for the Dymond M, that combines user friendlines with a complete set of functions, the result of over 20 years of experience in food and pharmaceutical industry

Sophisticated algorithms constantly refined provide excellent performances even when compared to systems with higher power.

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	3 x 1000 W – High performance metal-ceramic tubes
Detector resolution	0.4 mm
Conveyor speed	Up to 40 m/min
Conveyor height	950–1150 mm
Minimum distance between products	10% of the product diameter (20 mm raccommended)
Curtains	Optionals – lead-free
Safety switch / interlock	SIL 3 Category IV PLe, magnetic
HMI	21.5" LCD – touch screen
Operating temperature	5–35 °C
Relative humidity	20%–90% (non-condensing)
Power supply	230 VAC ±10% (standard) single-phase
Compressed air	5.5–6.9 bar
Cooling	External water cooler (closed circuit) 5 kW Air Condizitioner 1600 W (IP 34) – 1900 W (Nema 4X)
Radiation protection	FDA CFR 21 part 1020.40
International Protection Rating (IP)	IP34 / Nema 4X (except for the external water cooler)
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

3710

1878,19

330

2107

BEAM GEOMETRY

200

240

100
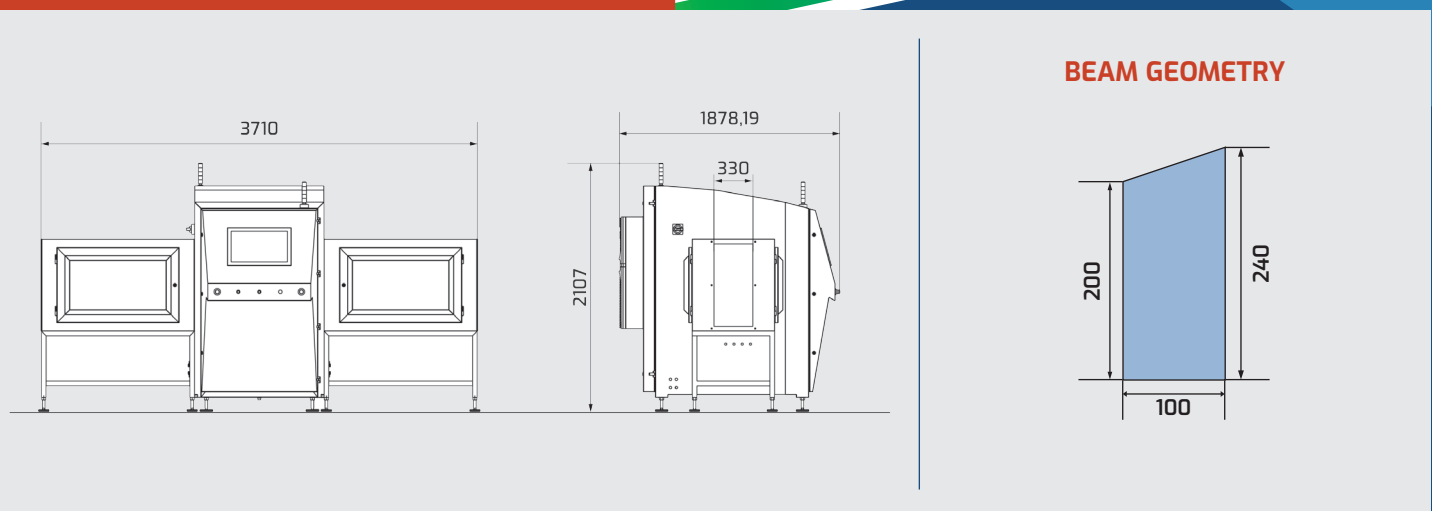
Subject to modifications and improvements.

DYMENG0519

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Company with management system certified
UNI EN ISO 9001:2015