

# Food X-ray Inspection

# DYLOG<sup>®</sup>

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## 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

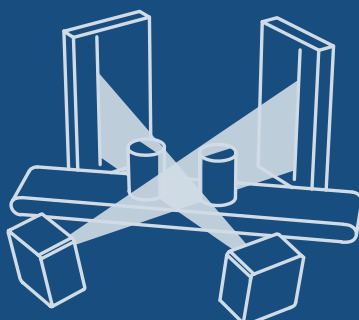
This is a **non-destructive analysis**, which, without altering the chemical composition or the organoleptic properties of the products, detects contaminants inside them (in any type of container or package) and verifies their wholeness and conformity. Contaminants having a density higher than the density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



### X-RAY POWER

2 x 500 W

### POINT OF VIEW



### PRODUCTS



## Hardware

The **two air cooled low power x-ray sources at 90° to each other**, combine the versatility and easiness of the entry level units with the high performances of the high power machines; this makes DYmond D the perfect machine for metal cans and small glass jars inspection, identifying:

- large but thin contaminants
- contaminants located in the bottom zone of the jar or bottle
- contaminants located near the side walls of the jar or bottle

thanks to a patented technology based on a double point of view aligned to the conveyor.

Last generation detectors concur to optimal images apt to analyze complex products.

The machine can be supplied with a complete handling system, including a product spacer, a conveyor, a rejection device and collector, tailored on the products and the layout of the existing production line.

## 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 friendliness 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.

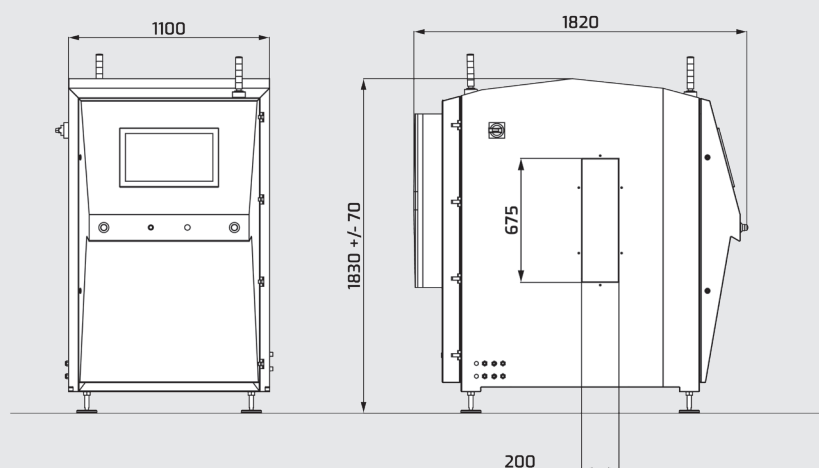
**Production and usage data** are redundantly stored to grant top-notch level security, while the data accessibility is granted by easy to read automatic reports.

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

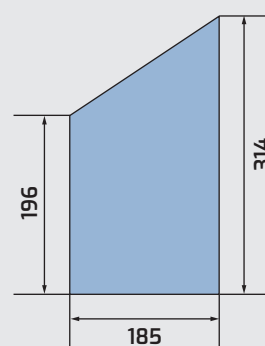
## Technical Features

<b>Power</b>	2 x 500 W
<b>Detector resolution</b>	0.8 mm or 0.4 mm
<b>Conveyor speed</b>	Up to 45 m/min
<b>Conveyor height</b>	740–1060 mm
<b>Minimum distance between products</b>	1 product diameter
<b>Curtains</b>	Optionals – lead-free
<b>Safety switch / interlock</b>	SIL 3 Category IV PLe, magnetic
<b>HMI</b>	21.5" LCD – touch screen
<b>Operating temperature</b>	5–35 °C
<b>Relative humidity</b>	20%–90% (non-condensing)
<b>Power supply</b>	230 VAC ±10% (standard) single-phase
<b>Compressed air</b>	5.5–6.9 bar
<b>Cooling</b>	Air Conditioner 1900 W (Nema 4X)
<b>Radiation protection</b>	FDA CFR 21 part 1020.40
<b>International Protection Rating (IP)</b>	IP65 (Nema 4X air conditioner)
<b>Connectivity Options</b>	Ethernet available with communication protocols: Modbus TCP (standard), OPC-DA, OPC-UA, XML messages on TCP, others on request
<b>Production data trail</b>	Complete records on parameters, users and products

## Dimensions



## BEAM GEOMETRY



Subject to modifications and improvements.

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**HITECH**

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UNI EN ISO 9001:2015