

## **X36 Series Bulk Flow** Inspection of Bulk Products



**The X36 Series Bulk Flow x-ray inspection system has been designed specifically to inspect unpackaged products in a bulk format. The x-ray system combines high throughputs with outstanding levels of detection, ensuring complete product safety.**

The X36 Series Bulk Flow is truly market-facing and encapsulates the requirements of manufacturers by offering an IP69 hygienic rating, high sensitivity detector technology and a choice of reject devices providing a highly adaptable solution to suit individual applications.

### **Unsurpassed Detection of Contaminants**

The bulk system works on absorption difference, rather than conductivity, and

simultaneously detects and rejects unwanted contaminants like ferrous, non-ferrous and stainless-steel as well as other contaminants such as glass, mineral stone, calcified bone and high density plastics regardless of their shape or location within the bulk food. The X36 Series Bulk Flow is not affected by changes in product temperature or moisture, thus minimising false rejects.

# X36 Series Bulk Flow

## The Big Difference is in Every Detail

The X36 Series Bulk Flow x-ray system not only offers outstanding contamination detection but also provides many other valuable features and benefits.

### Software Capability

- Sophisticated yet simple to use with flat menu structure, giving the operator full control, facilitating a better user experience with reduced training requirements.
- Automated set up and ready to use within minutes, ensuring maximum production uptime.
- Capable of processing high throughputs of up to 14,000 kg/hour (dependent on product density and layer thickness).

### Audits / Verification

- Full statistics traceability for quality reporting.
- Performance verification built in to ensure constant optimum performance.

### Design / Hygiene

- Class-leading hygienic design following GMP, NSF and EHEDG principles and compliance with FDA regulations and EU Directives.
- IP69 as standard for harsh wash-down environments.
- Reject scoops and chute are easy to remove for cleaning.
- Quick belt removal with no hidden bacteria traps, ensuring minimum downtime and optimum protection.
- Auto tensioning and tracking conveyor ensures that the belt stays in position during production, ensuring maximum uptime.
- A troughed belt retains product on the belt, minimising spillage whilst ensuring the product is presented at a constant depth for optimised product inspection.
- A 600mm wide belt system is available to ensure maximum throughputs.

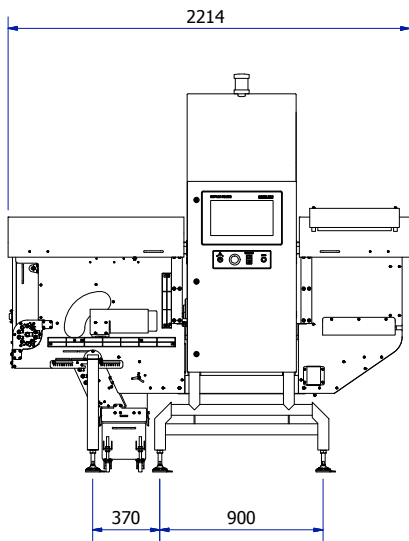
### Flexibility

- Flexible infeed: hopper or end-fed options ensuring that the x-ray system can be easily integrated with existing equipment on the production line.
- Flexible approach to connectivity is offered with options for data retrieval via external USB or Ethernet ports, directly or via an OMAC compliant OPC server.

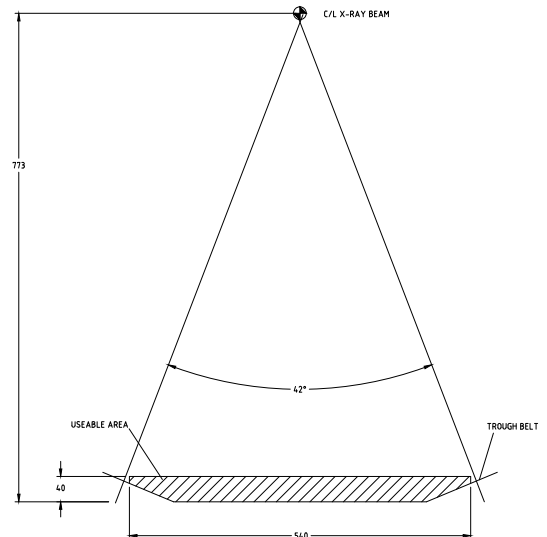
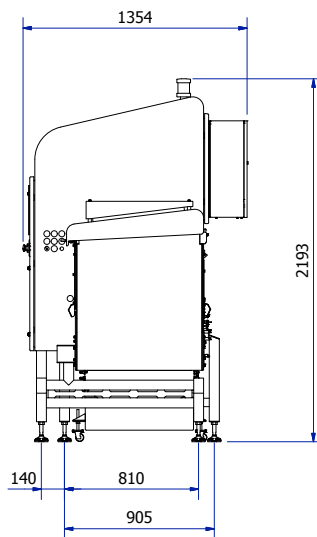
### 5 Year Generator Warranty\*

- A 5 Year Generator Warranty covers the most expensive component of the X33 Series avoiding unexpected costs and production downtime.
- Budgets can be effectively managed with the warranty, fully protecting the investment.





X36 Series Bulk Flow - 2214mm long



Product size diagram for the X36 Series Bulk Variant - 600mm detector width

## X36 Series Bulk Flow Software Tools

The X36 Series Bulk Flow x-ray system can inspect for contamination whilst simultaneously storing all images and inspection history, ensuring all quality assurance requirements are protected.



### Outstanding Contamination Detection

The X36 Series Bulk Flow provides outstanding detection of contaminants in various applications including fresh, frozen or dried products including; nuts, grains and pulses, extruded snacks, fruits, cereals, vegetables, seafood, minced meat, confectionery and pet foods.



### Meeting Due Diligence Requirements

ProdX data management software can integrate all Product Inspection Systems on the production line by allowing multiple methods to interact with the system to retrieve critical inspection process data e.g. statistics and images and store them in one convenient location.

## Sustainability Credentials

The X36 Series Bulk Flow is available with a range of power options; some models don't even require a cooling system due to its low power consumption contributing to overall reduced total cost of ownership for the customer and making it the most energy efficient system on the market.

Lower energy consumption	•
Thinner Stainless Steel used due to low power x-ray generator	•
Recyclable materials	•
Fewer production steps	•
Reduction in weight	•
Reduction in (transport) volume	•
Less cooling required	•
LED display instead of CCFL	•
Reduced electronic components, less PCB's used	•
Miniature LED lamp stack	•



## Reject Mechanism

A three or six lane scoop reject option is available, suitable for a wide range of bulk food products at various throughput rates. These multi-lane reject systems are commonly used for bulk flow applications where a much smaller amount of product can be rejected instead of rejecting the full belt width; minimising product waste, saving costs and improving productivity.

Adjustable positioning of the chosen reject device provides complete flexibility to cover a range of application and line speeds, eliminating long periods of downtime and assisting with quicker product changeovers.



An example of a six lane scoop reject with three scoops up and three scoops down.

## Specification Table

Feature	Specifications
Conveyor Speed	Typical line speeds 10-60 m/min (dependent on product and layer thickness)
Lane Configurations	Single lane
Throughput Rate	Typical throughput rates of up to 14,000kg/ hour (dependent on product and layer thickness)
Maximum Product Layer	550mm (W) x 30mm (H) (dependent on product. Single product layer for optimal results)
X-ray Detector	600mm, 0.4mm or 0.8mm diode size
X-ray Generator	100W, 84kV, 1.2mA Beryllium tube
X-ray Beams	Single
X-ray Emissions	< 1uSv/hr
X-ray Protections	Line of sight removed by cascade design; x-rays are fully contained within the system
Cooling Method	IP69 Air Conditioner
Operating Humidity	up to 90% RH
Operating Temperature	5°C - 40°C
Power Supply	208 - 240 Vac, 1 phase, 50 - 60 Hz, 10 A 100 - 120 Vac, 1 phase, 50 - 60 Hz, 16 A
Pneumatic Supply	6 Bar(g) clean air supply required for air operated reject system, belt tensioning and tracking
Casing Material	304 stainless steel
Finish	180-240 Grit Brushed on main components
Ingress Protection	IP69
Operating Height	850mm, 950mm or 1050mm (+/- 50mm)
System Conveyor	FDA and EU food use approved TPU conveyor belt, 0.37kW motor unit
Infeed Options	Flexible infeed: hopper or end-fed option
System Length	2214mm
Screen Display	15" LED Touchscreen display (16:9 aspect ratio)
Reject Type	Three/ six lane scoop
Reject Bin	Custom made stainless steel bin with castors (optional)
Operating System	Microsoft Windows 64 bit
Connectivity Options	Ethernet connection available
Traceability Options	Full event log tracks changes of parameters, users and products
UL Approved	Yes

### Mettler-Toledo Group

Product Inspection Division  
Local contact: [www.mt.com/contacts](http://www.mt.com/contacts)

[www.mt.com/safeline-xray](http://www.mt.com/safeline-xray)

For more information

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