

X⁴

X-ray Inspection



Versatile, proven X-ray detection for the food and packaging industries

Loma X⁴

Loma X⁴ Bulk

Loma X^R

Loma X⁴ PipeLine

Summary

The X⁴ is part of the family of the next generation of contaminant detection equipment. With fully automatic calibration of both product and power levels, it offers complete inspection at any line speed.

It will detect not just metals but is capable of detecting dense contaminants in products such as;

- Glass
- Stone
- Dense Plastic
- Calcified Bone

Loma X⁴ can also detect metal contaminants that are otherwise hidden by metal foil or film packaging.

As well as outstanding contaminant detection, Loma X⁴ can simultaneously identify missing items, underweight measures and malformed products.

Loma's advanced image processing software automatically detects objects of a different density to the standard product and rejects those that are contaminated or incorrect.

Set-up via the color touch screen is quick and easy. No need for sophisticated operator skills.

Loma produce a wide range of robust, reliable and user friendly models to meet industry needs, whether for packaged or bulk-fed product.

Loma delivers better, consistent quality to your product and plays a vital role in protecting your brand.



Benefits at a glance:

- **Versatile** Models and reject systems to suite a wide range of packaged product
- **Easy to use** Intuitive full color touch-screen
- **Sensitive** Auto calibration, which requires no programming and maximizes performance
- **Fast** Belt speeds in excess of 96 m/min (315 ft/min) without loss in performance
- **Reliable** Heavy duty conveyor components, built for 24/7 operation

Benefits of X-ray

The benefits of using X-ray technology versus other inspection technologies are many. X-Ray systems detect numerous dense and dangerous contaminants within the product that are not detectable by other means. Inspection is possible through most metallic packaging materials including cans and aluminum trays.

Simultaneous to contaminant detection, the X-ray image provides data for the analysis of missing items, defective items, low fill scenarios, low mass products, excess products. Multi-zone mass measurement based on density and area criteria, total area inspection, zone area inspection, missing count and even analyse for the size and quantity of holes within maturing Swiss cheese products for quality analysis

The installation of an X-ray system will also eliminate numerous issues normally associated with metal detection technology such as vibration, interference, product effect, loop effect, wire effect, the requirement of metal free zones and the need for specific aperture sizes and frequencies for maximum detection performance of a specific product. Simultaneously, the technology can improve upon checkweighing performance in specific applications by 'weighing' defined zones within the package itself rather than weighing the entire package. All of this analysis can be accomplished at scan rates up to 2000 times per second or in excess of 500 ppm.

Finally, remember first class after sales support is key to success. Training at the time of installation, spare parts availability, regional support, cross trained technicians, and help support lines must be considered as part of the purchase.



All Loma systems are manufactured to the exacting standards of ISO9001 and supported by a world-wide network of sales and service operations

Loma reserves the right to improve or change specification without prior notice

Technical Specification

Upgradeable Display mounted Industrial Grade PC with modem and network card

Large and expandable Hard Drive

Embedded Windows XP operating system.

Digitally controlled WASC (Wide Angle, Self Cooled) high performance X-ray tank. (Tube life estimated at 7 to 10 years)

Unique USB high speed, high stability, temperature compensated detector array with 0.8mm diode pitch. Scan rate of 2000s/sec

Computer vision system utilising image processing and morphological techniques

Pass Key protected set-up

Ethernet ready

USB Report and image archiving

Full diagnostic and system health monitoring with date and time stamp archiving

Usage monitoring with planned maintenance prompts

QA test event logging

Modem support capability

Totally integrated and modular system with standard off the shelf components

About Loma Systems

Loma Systems is a world class manufacturer of inspection systems, with installations in over 60 countries and in most of the world's largest food and packaging companies.

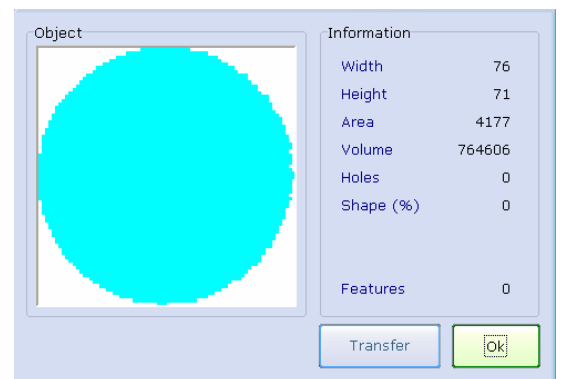
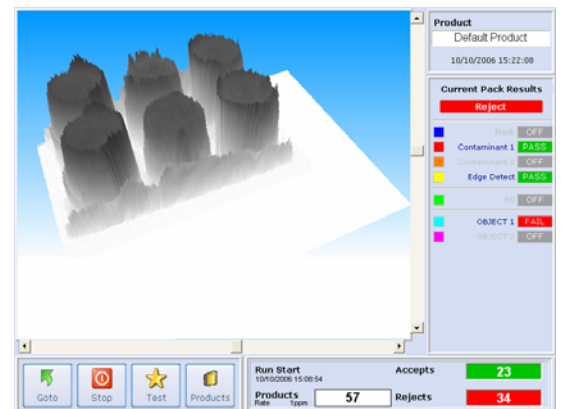
Loma Systems holds ISO 9001 certification and has earned a reputation for the consistent quality and advanced technology of its products, the results of a continuous and far-reaching research and development program.

Short lead times, modular design together with our passion for customer service, allow you to:

1. Maximize your production up-time
2. Maintain your self-sufficiency
3. Help your customers comply with and exceed consumer and government demands for product safety.

Finish:	304 stainless steel with bead blast finish	
Typical Line Height:	900mm ± 50mm	35" ± 2"
System Length:	2000mm	80"
Belt Width:	300/500mm	12/20"
Supply Voltages:	230/1ph/50Hz N+E 110/1ph/60Hz N+E	
Air Supply:	5 to 8 bar	80 to 100 psi
Reject Options:	Air Blast single or twin, Pusher others to order	
Environment:	IP 55/66	NEMA 12/4X
Belt Type:	Flat (food quality) belt	
Standard Inclusions:	Quick release belt, Height adjustable feet, Mass Measurement, Missing product, Shape recognition, Image and report archiving, Hinged interlocked covers, Variable speed	
Options:	Reject confirmation, Bin full sensing, Reject bin, Survey meter, Remote diagnostics, Lockable wheels, LomaEnet, Modem	

Typical Screen Shots



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