

X⁴ PipeLine

X-ray Inspection



Versatile and proven X-ray detection for the food process industry

Loma X⁴

Loma X^R

Loma X⁴ Bulk

Loma X⁴ PipeLine

Summary

The X⁴ PipeLine is part of the family of the next generation of contaminant detection equipment. Fully automatic, it offers complete inspection at any line speed.

X⁴ PipeLine will detect not just metals but is capable of detecting dense contaminants in products, such as;

- Glass
- Stone
- Dense Plastic
- Calcified Bone

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 PipeLine-fed product.

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



Benefits at a glance:

- **Versatile** Range of pipe diameters to suite a wide range of free flowing product
- **Easy to use** Intuitive color touch with automatic calibration
- **Sensitive** Each product run is independently analyzed with its own inspection profile
- **Fast** Throughput in excess of 10T/hr without loss in performance
- **Reliable** Heavy duty components, high quality electronics, waterproof to IP66

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 aluminium 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 2500 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 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

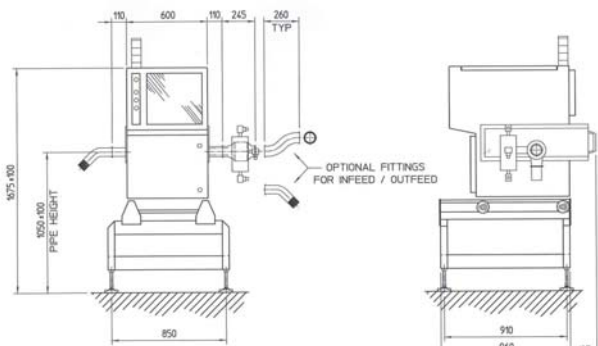
QA test event logging

Modem support capability

Totally integrated and modular system with standard off the shelf components

Finish:	304 stainless steel with bead blast finish	
Typical Line Height:	1050mm ± 100mm 41" ± 4"	
System Length:	850mm (without reject) 33"	
Pipe Diameter:	2.5" or 3" (64mm or 75mm)	
Supply Voltages:	230/1ph/50Hz N+E 110/1ph/60Hz N+E	
Air Supply:	5 to 8 bar	80 to 100 psi
Reject Options:	ARC valve, signal only, others to suit	
Environment:	IP 66	NEMA 4X
Fittings:	RD80, Tri-clamp, + range of adaptors	
Standard Inclusions:	Adjustable feet, Remote Reports, Hinged interlocked covers	
Options:	Variable speed tacho, Clip Inhibit, Survey meter, Remote diagnostics, Lockable wheels.	

Typical System Drawing



About Spectrum Inspection Systems

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

Spectrum Inspection 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.

UK
Loma - Cintex
Southwood, Farnborough
Hampshire, GU14 0NY
England
tel +44 1252 893300
fax +44 1252 513322
e-mail
sales@loma-cintex.com

USA
Loma Systems
283 East Lies Road
Carol Stream, Illinois 60188
USA
tel +1 800 USA LOMA
tel +1 630 588 0900
fax +1 630 588 1394
e-mail sales@loma.com

Canada
Loma Systems Canada
333 Wycroft Road
Oakville, Ontario,
Canada
tel +1 800 387 7987
tel +1 905 842 4581
fax +1 905 842 3460
e-mail:
lomacanada@loma.com

China
Spectris China Ltd
Unit 101
XinAn Plaza
Building 13
No 99, Tianzhou Road
Shanghai 200233
PR China
tel +86 21 611 33688
fax +86 21 611 33788
e-mail:
stevenfang@spectris.com.cn

France
Loma - Cintex
120 rue Jean Jaurés
92300 Levallois Perret
France
tel + 33 1 55 69 57 78
fax + 33 1 55 17 43 31
e-mail:
info@loma-cintex.com

Germany
Loma - Cintex
Vahrenwalder Straße 269A
30179 Hannover,
Germany
tel +49 511 9666 811
fax +49 511 9666 812
e-mail:
info@loma-cintex.com

The Netherlands
Loma - Cintex
Panovenweg 22
5708 HR Helmond,
Netherlands
tel +31 492 573 573
fax +31 492 573 570
e-mail:
info@loma-cintex.com

Czech Republic
Loma - Cintex
U Lomy 1069, 334 41
Dobruška
tel +420 377 183811
fax +420 377 183820
e-mail:
info@loma-cintex.com