

IQ² FreeFalls

Metal Detection



Versatile, proven metal detection systems for the food, pharmaceutical and chemical industries

Loma IQ² Search Heads

Loma IQ² Conveyors

Loma IQ² PipeLines

Loma IQ² FreeFalls

Loma IQ² Pharmaceutical

Summary

Our sales and design engineers work with you to provide a metal detector system that is suitable to your individual application requirements.

The metal detector range is the result of over 35 years of expertise in the food processing and packaging industry. Careful design has resulted in a modular product for ease of maintenance and minimum parts stocking requirement.

Loma's metal detector systems optimise performance of the Loma IQ² metal detector head. With a bright display easily read under all lighting conditions, the units ensure a level of reliability and ease of set up which is the best in the industry.

An essential part of any metal detection system is an efficient reject device. Our sales and design engineers will ensure that the most effective device is selected for your individual application.

Loma produce a wide range of robust, reliable and user friendly models to meet industry needs, whether for packaged, bulk-fed or pumped 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 apertures to suite a wide range of pipe sizes
- **Easy to use** Automatic product learn ensures maximum sensitivity without adjustment
- **Sensitive** Advanced signal processing provides unsurpassed levels of detection
- **Flexible** Multiple product memories for rapid product change over and data storage
- **Efficient** High speed reject ensure positive contaminant rejection with minimum wastage
- **Safe** ATEX category 3D approved for use in zones 22

Benefits of Metal Detection

Metal Detection has been used in the food processing and packaging industry for over 50 years so the technology is well tried and tested.

Metal forms a significant percentage of foreign bodies that can be considered dangerous. Contamination can arise for various reasons, for example metal can be present in the incoming raw material, from broken parts of plant machinery or even from the act of sabotage.

Analysis of the risks associated with the production process (such as HACCP within the food industry) should lead to an indication of the best location for metal detection inspection. A significant trend in recent years has been to install metal detection equipment at various stages in the production process as well as at the end of the line. The benefit being that contamination can be identified earlier and removed, with less value added to the product and also ensures that damage to expensive plant equipment is prevented.

Metal detectors rely on the conductive and magnetic qualities of metal in order for them to be detected. Where these are present in large amounts then detection is good, such as with magnetic steel, where they are not, such as with non-magnetic stainless steel, then detection is less good. Some conductive products (that contain salt and water) like cheese or meats affect the performance of metal detectors adversely, as well as some packaging like metallised film or foil. If the conductive product is frozen (below -18°C/0.4°F) then the adverse effects from the conductive products are largely eliminated.

A metal detector reject system has to be efficient and designed for the application to reliably reject the contaminated product.

Metal detection plays a vital role in protecting the brand and consumer and is key to conforming to product safety legislation.

Finally, remember first class pre and 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.

Technical Specification

Upgradeable metal detector controls.

PVS to aid HACCP compliance.

Various communication options to suit plant integration protocols.

Direct transmitter drive to eliminate thermal drift.

High field strength to eliminate external interference and deliver the ultimate in noise free detection.

32-bit digital signal processing for enhanced contaminant detection.

Standard apertures on rapid delivery.

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 pharmaceutical and chemical 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.



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

Finish:	304 stainless steel with bead blast finish		
Pipe Diameters:	100mm (4") 150mm (6") 200mm (8")		
Typical System Lengths: (Foot Mounted)	790mm (31") 860mm (34") 1080mm (43")		
Throughput:	*6 T/hr	*13.5 T/hr	*24 T/hr
Supply Voltages:	230V 1ph N+E 110V 1ph N+E		
Air Supply:	5 to 8 bar	70 to 90 psi	
Reject Types:	Bucket reject with sealed reject port		
Environmental Protection:	IP 65		
Options:	Remote control box Beacon stanchion Reject confirm LomaNet Serial link PVS Beacon Floor or ceiling mount Keyboard cover Test retrieval kit Ethernet Remote reports		

* Throughput is dependent bulk density and flow characteristics

FreeFall metal detector only - without reject

Head Aperture Sizes		
For tight spaces like bag makers		
CF (Contained Field) mm diameter	SlimLine mm	Full size mm
120 (D = 154)	110 x 110	110 x 110
4.7" (D = 6")	4.3" x 4.3"	4.3" x 4.3"
168 (D = 154)	125 x 125	125 x 125
6.6" (D = 6")	5" x 5"	5" x 5"
180 (D = 154)	150 x 150	150 x 150
7.1" (D = 6")	6 x 6"	6 x 6"
219 (D = 294)	180 x 180	180 x 180
8.6" (D = 11.6")	7" x 7"	7" x 7"
270 (D = 354)	200 x 200	200 x 200
10.6" (D = 13.9")	8" x 8"	8" x 8"
320 (D = 394)	240 x 240	240 x 240
12.6" (D = 15.5")	9.4" x 9.4"	9.4" x 9.4"
Case = D mm to flow	Case = 134mm (5.3") to flow	300 x 300 (11.8" x 11.8")

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