IQ^3 Search Heads

Metal Detection

Loma IQ^3 Search Heads

Loma IQ^3 Conveyors

Adaptable and tough, variable frequency metal detection systems for the food and packaging industries

Summary

Loma's IQ^3 has been engineered for quick, simple set-up, unbeatable performance and is full of technical innovation.

The metal detector has a unique case and coil geometry and delivers a quantum leap in immunity from vibration, electrical interference, case distortion and thermal shock. It comes in a range of head sizes to accommodate virtually all applications.

It is designed for tough industrial environments and comes with IP69K high temperature high pressure wash-down environmental protection as standard. The IP69K test subjects the metal detector to water between 80-100 bar, at a temperature of 80ºC from a distance between 10 and 15cm.

The Loma IQ^3 metal detector is a true multi-frequency machine and can operate at frequencies between 40 and 900KHz and has the ability to select the correct operating frequency in seconds thus eliminating the past performance restrictions caused by single or limited frequency detectors. Changes in product and packaging no longer require the expense and inconvenience of service engineer set-up.

Loma produce a wide range of robust, reliable and user friendly models to suit all applications, 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:

- Adaptable True multi-frequency detection adapts to new product and packaging in seconds
- Easy to use Automatic product learn ensures maximum sensitivity without adjustment
- Stable Unique case and coil geometry delivers unsurpassed levels of immunity
- Flexible Multiple product memories for rapid product change over and data storage
- Tough IP69K environmental protection

IQ³ Search Heads – Metal Detection

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 -18ºC/0.4ºF) 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 the 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

Unique clam-shell design case and coil geometry

Bifurcated and totally uniform product screen

Upgradeable metal detector controls

True multi-frequency, standard operating range from 40 to 900KHz

Performance Validation System (PVS) to aid HACCP compliance

Various communication options to suit plant integration protocols

32-bit digital signal processing for enhanced contaminant detection

Standard apertures on rapid delivery

Height mm

100 150 200 250 300 350 450

Width mm

250 350 450 550 650 750 950 1150

***Other aperture sizes available to order**

Finish:	304 stainless steel with bead blast finish
Supply Voltages:	100, 120, 200, 220, 230, 240V AC 50/60Hz
Power Consumption:	20VA
Temperature Range:	-10ºC to +40ºC (14ºF to 104ºF)
Humidity:	0 to 95% Relative Humidity (non-condensing)
Reject Options:	Air Blast single or twin, Pusher others to order
Environment:	IP 69K Blue Head IP 69K Ultra Harsh MAX
Options:	Beacon stanchion Keyboard cover Reject confirm Bin full LomaEnet Ethernet Serial link Remote reports PVS (Performance Validation System)

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.

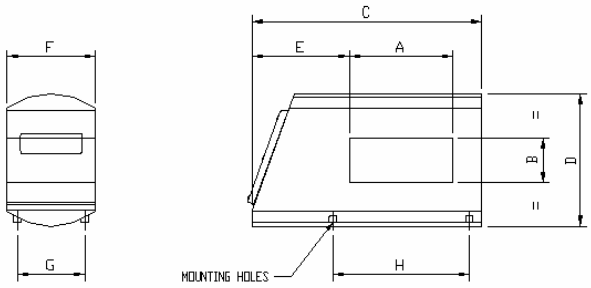
Short lead times, modular design together with our passion for customer service, allow you to:

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.

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

Dimensional Drawing



DIMENSION A = APERTURE WIDTH
DIMENSION B = APERTURE HEIGHT

B	75-100	125-150	175-250	275-350	375-450	475-550	575-650	675-750
C	A+430	A+430	A+430	A+530	A+630	A+730	A+830	A+930
D	425	B+300	B+300	B+400	B+500	B+600	B+700	B+800
E	330	330	330	380	430	480	530	580
F	300	300	400	500	600	700	800	1000
G	230	230	330	430	530	630	730	930
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