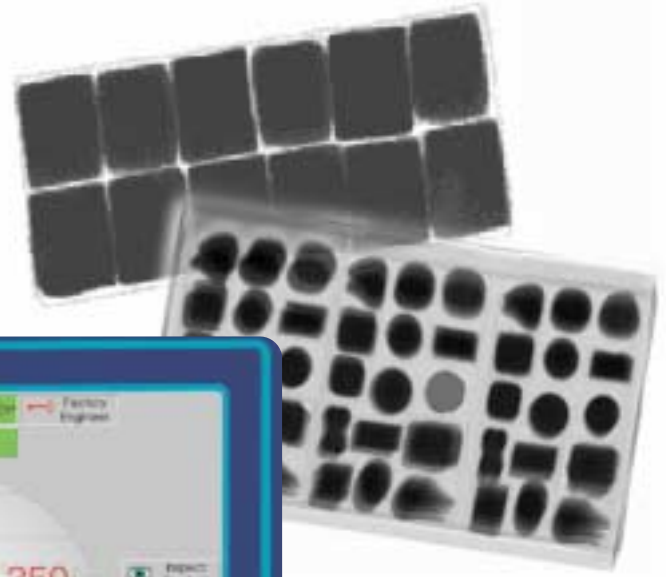


Goring Kerr VXS X-Ray Systems



Our Fifth Generation of X-Ray Inspection Systems

Goring Kerr VXS X-Ray Inspection Systems are the result of extensive development, drawing on our established presence in the marketplace. We were the first company to introduce automated X-Ray Inspection Technology into the packaging industry and have more years of experience than any other global company.

The VXS systems are the fifth generation of our X-Ray machines. They have been

designed to meet the demands of the packaging industry based upon customer feedback from installations worldwide.

Key features on each machine include a wide range of detection filters that permit the VXS to be placed into many inspection applications, in addition to traditional contaminant detection. By combining these filters in the unique VXS software system, the unit may be used to perform several inspection functions concurrently.

Ease of use has become a key issue in line operation environments. Early X-Ray systems were complicated to set up and calibrate. The VXS has faced this challenge and offers a highly functional machine with clear, semi-automatic set-up procedures. Your need for reliability and maintainability was given considerable attention during the design process.

Goring Kerr VXS X-Ray Systems

Goring Kerr VXS X-Ray Inspection Systems set new standards for X-Ray inspection technology worldwide. A product with superior detection filters permits the VXS to perform in a wide range of applications with great accuracy. Cost of ownership has been greatly reduced by the development of more reliable and modular components. The X-Ray generation tank can be replaced in a matter of minutes and will greatly improve the MTBF of the overall system. A similar approach to other key sub-assemblies makes our VXS systems ideal for the food and pharmaceutical industries.

- **Bright Color Display**

Its bright color display provides unambiguous information and set-up procedures. An ergonomically designed menu structure ensures that the operator can intuitively and reliably use the system with a minimal amount of training. The large, easy-to-view screen is not only used to display set-up and operation data, it can also be used to view X-Ray images online with improved clarity.

- **Touch Screen Operation**

Instead of a traditional data entry keypad, the VXS features a touch-sensitive screen. This permits the use of "soft keys" that further enhance the ergonomic feel of the machine. The application of advanced machine operator technology provides high functionality with simplicity of operation.

- **Increased Aperture Size**

On the conveyor-based system, its large 350 mm x 120 mm aperture permits the VXS to be used in the widest range of packaging applications. This increased aperture size has been achieved without increasing X-Ray power or compromising its inspection performance. A more efficient power supply design, an X-Ray generating tank, and more sensitive and stable detection arrays were key in achieving these improvements.

▽ The VXS conveyor-based system is designed for easy cleaning and maintenance. The guard covers open on gas struts to give full access to the conveyor system. Belt changing and cleaning is quick, easy and takes less than five minutes to complete.



- **Product Library**

A product library with a capacity of 999 products is provided within the standard system. It contains set-up and operational data for each inspected product. This means that once the initial set-up has been completed and checked, the time required to change from one product to another is minimal and its reliable performance is guaranteed.

- **High Detector Scan Rate**

The X-Ray image information is transferred line by line into the main computer for analysis. The quicker the scan rate, the greater the product throughput capability of the machine. The VXS can handle a scan rate up to 1000 lines per second, which enables the high product throughput.

- **High Voltage Supply and X-Ray Power**

In order to generate X-Rays, the generator tube must be supplied with a stable high voltage source. A unique push-pull high voltage power supply system within the VXS provides 80 kilovolts to the generator tube. This greatly reduces the breakdown possibility, which leads to more stable and reliable X-Ray generation. The power supply is controlled and monitored by the central computer to ensure that it is always well within operational specifications.

- **Advanced Orientation Independent Detection**

Traditional anomaly detection filters require the product to be consistently oriented on the conveyor. This can be inconvenient and impractical in many operational situations. A new advanced software algorithm allows the anomaly detection filters to work with products that have random orientation, which provides a more reliable and flexible solution.

- **Application Library and Test Facility**

We maintain an extensive application library of previously tested products and performance criteria. This is available to customers through our normal sales contacts. Full product tests and application reports are available upon request.

▽ VXS Bulkflow System



▽ VXS Pipeline System



▽ VXS X-Ray On-Screen Product Images



Specifications

SPECIFICATIONS

Power Requirements	230 volts 1 Phase and Earth 50 Hz +/- 10% (16 amp nominal) For special power requirements, contact sales office.	110 volts 1 Phase and Earth 60 Hz +/- 10% (20 amp nominal)
Approvals	CE Approved CSA Approved Other approvals available on request. Contact sales office.	
Environment	IP65 Full Stainless Steel Construction for Washdown Applications	
Line Height	850 mm +/- 50 mm standard Non-standard conveyor heights available to special order. Contact sales office.	
Conveyor Length	2,000 mm standard Non-standard conveyor lengths available to special order. Contact sales office.	
Conveyor Speed	Application dependent for optimal performance. Contact sales office.	
Conveyor and Bulk Flow Options	Multi-lane option allows two or four lanes to be screened and rejected independently.	
Pipeline Sizes	2 1/2", 3", 4" diameter	
Pipeline Capacity	2 1/2" diameter typically used for meats Up to 130 Kg/min (7.75 tonnes/hour) 3" diameter typically used for soups/sauces/baby foods Up to 11,000 litres per hour 4" diameter typically used for soups/sauces/baby foods Up to 19,500 litres per hour	
Pipeline Option	Aseptic Manifold	
Machine Weight	Approximately 450 Kg, depending on configuration.	
Contaminant Sensitivity	Contaminants as small as 0.5 mm may be detected, depending on product type.	
Detection Filters	Threshold Anomaly Detection Gradient Image Detection Pack Edge Masking with orientation independent operation Contaminant Area Measure Product Area Measure Grid Pixel Totalisation Expandable Anomaly Detection Filters for future applications	
X-Ray Power	300 watts 80kV	
Detection Scan Rate	Up to 1000 lines per second	
Security Key Access	Prevents unauthorized parameter changes or system abuse	
Operating Temperature	0°C to 35°C and humidity to 80% non-condensing. For high temperature application information, contact sales office.	
Data Export	The following data may be exported to an industry standard 3 1/2" floppy disk: product setting (upload and download), statistical information, bit map images, and event log.	
Communications	Ethernet communication is available using HTTP protocol. Information can be viewed and performance controlled via a standard web browser.	

This information is provided for guidance only. Full specifications of individual systems should be obtained from Thermo Electron.

