



Conveyorised Metal Detectors

Flexible Configuration

Robust Construction

Hygienic, Easy Clean Design

Meeting Compliance Needs

Series 200

Conveyorised Systems for Bulk Product Inspection

Bulk Product Inspection

Optimised Metal Contaminant Detection

Series 200 conveyor systems provide a fully integrated metal detection solution for the inspection of large, medium to heavy weight, bulk food and non-food applications.

System design is flexible with a range of configurations enabling diverse systems to be developed from simple stop-on-detection systems through to fully automated detect and reject systems. Robust construction techniques ensure the systems are built to last in heavy, demanding work place environments.



Low level painted Series 200
with Profile Detector



Stainless Steel Series 200
with Signature Detector

Future-Proof Inspection Solutions

Detector apertures, finishes and operational frequencies can be specified to suit your process requirements in order to maximise detection sensitivity, stability and on-line performance. A choice of METTLER TOLEDO SAFELINE metal detection heads and software technologies are available to ensure your quality standards are met.



RB Series for enhanced sensitivity on large bulk products

Large bulk products can create a significant signal which in some instances can mask the signals generated by real metal contaminants. The innovative coil design and unique detection head geometry of RB Series metal detectors provides improved levels of sensitivity, particularly to non-magnetic stainless steel and irregular shaped contaminants in bulk products and 'product effect' applications.



Profile Technology

The most advanced metal detection solution available provides the ultimate in detection sensitivity to all metals. Profile software also delivers numerous additional features including Change-Free operation, continuous Condition Monitoring and SMS/email communication facilities for maximised process efficiency.



Signature Technology

The well proven Signature software platform from SAFELINE provides reliable capability to detect all metal contaminants in a multitude of applications.



Reliable, Consistent Performance For all Bulk Product Applications

Series 200 inspection systems can be configured to suit the actual working environment. This means they deliver consistent performance for maximum process efficiency enabling your business to benefit from improved competitiveness, increased productivity with minimum overall operating costs.



An Integrated Solution for Dry, Ambient Environments

In most dry, ambient operating environments, painted finishes to both the metal detection head and conveyor frame are sufficient. In some applications, medium duty stainless steel detectors may be more suitable. With IP ratings from IP54 to IP65 standard, systems are capable of withstanding wet wipe down or light hose down cleaning regimes.

Systems of this type can be specified with FDA approved polyurethane conveyor belts or modular polyethylene belts.

Suitable for Use in Harsh Environments

When the working environment gets tough, inspection systems need to be specified to equally high standards. For this reason, Series 200 systems can be configured with stainless steel detectors rated at IP69K and conveyors sealed up to IP66 standard. Systems of this type are normally designed to include modular polyethylene belts to ensure that the whole system is capable of withstanding high-pressure, high temperature wash-down regimes and still perform reliably, day after day.



Conveyors for wet, harsh environments



Sealing to IP69K for extreme washdown conditions

Optimised Performance, Today and into the Future

Reliable Performance, Easy Integration

Meeting Hygiene Standards and HACCP Needs

All Series 200 systems are extremely robust and are built to exacting standards for long term stability, performance and reliability. Conveyor frames are rigid with fully welded construction to withstand the rigours of handling heavy products and to meet EHEDG certification. This means that ledges, flat horizontal surfaces and other dirt traps are minimised ensuring that cleaning is made easy, your HACCP needs are met and your hygiene standards are maintained and surpassed.



All Series 200 systems are supplied ready for installation with a comprehensive documentation package as standard which includes:

- Operational manuals
- System drawings
- EC declaration of conformity
- Factory acceptance certification (FAT)
- Performance test samples



Effective Product Conveying for Enhanced Process Efficiency

High quality motors and drives are utilised to ensure product is transported positively and consistently through the detector. A choice of fixed speed, direct drive motors are available to meet most demands. Alternatively, variable speed drives can be specified when required.

Tailoring the Solution to Meet Your Needs

Other options can be specified to further aid operational efficiency and product transfer effectiveness including the incorporation of product guides to provide full control of product as it passes through the system. Systems can be mounted on robust castors if required to provide a fully mobile systems which can be utilised in multiple locations within your plant.



Robust castors for full system mobility



Failsafe Systems

For Complete Peace of Mind

Series 200 conveyor systems can be configured to meet and exceed the demands of all leading retailer and other industry or regulatory standards. An extensive range of options from simple sensing devices through to sophisticated closed loop failsafe systems are available.

Systems provide a future proof solution with the option to retro-fit failsafe systems at a later stage enabling the system to grow and evolve with your needs and the needs of your customers.

Devices and Systems Available Include:

- Warning beacons and sounders
- Push-button and key operated re-set systems
- Pack in-feed sensors
- Reject confirmation sensors
- Detector head fault warning
- Air failure alarm
- Forced reject failure check
- Air reservoir
- Shaft encoder
- Reject check sensor



Warning beacon stack



Key-operated re-set switch



Pack sensors

Data Collection Options to Support Compliance

Series 200 systems can be configured to incorporate a data access socket to enable external print devices to be plugged into the equipment and data tickets to be generated. These can be stored as hard copy records for future reference.

When more sophisticated automated data collection is required, systems can incorporate advanced connectivity solutions ranging from a simple serial connection to full Ethernet network connectivity which could include wireless functionality.



Removing the Right Contaminated Product Every Time

Once identified, metal contaminated product or packs need to be safely and effectively removed from the production line. Rejecting the right pack every time without compromising process efficiency requires the system to be specified correctly with sophisticated timing and process control measures. Important factors to consider can include the need to meet compliance requirements and the characteristics of the product and process, for example, the pack size and line speed.

Stop on Detect Functionality

The simplest solution enables the conveyor to be stopped on the detection of metal contamination. Contaminated product can be manually removed before re-starting the system. The effectiveness of these basic systems can be supplemented through the use of optional warning sounders, high visibility beacons and other secure system re-set features.



A Choice of Automatic Reject Systems

Series 200 conveyerised systems can be configured with a range of dynamic, fully automated reject systems. All reject systems include photo-gated timers to ensure the correct pack is rejected every time. These systems can also be supplemented with the full range of optional warning devices, reject product collection bins, gravity roller take away systems and innovative failsafe systems to further support compliance.



Supporting your Compliance Needs

Series 200 inspection systems can be installed at critical control points (CCP) of your production processes to enable your business to comply with HACCP requirements and the broader needs of external food safety regulations and standards.

Systems can be configured to support compliance with major retailer codes of practice and GFSI standards including:

- BRC (British Retail Consortium)
- IFS (International Food Standard)
- SQF 2000 (Safe Quality Food)
- ISO 22000



IPac Provides Further Support of Compliance

All Series 200 metal detection systems can be supplied with a METTLER TOLEDO IPac installation and performance verification package. This provides the necessary documentation to support compliance with standards, prove due diligence has been exercised and simplify the task of meeting external auditor requirements.



www.mt.com/metaldetection

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