



T-Series

ST-Series

Maximum Detection Performance

Increased Productivity

Reduced Costs

Improved Competitiveness

Regulatory Compliance



Metal Detection Solutions For Vertical Packaging Applications

Maximising Product Quality

Meeting Compliance Requirements

In high-speed vertical packaging applications, you need to maximise product quality, protect the welfare of your customers and meet regulatory demands. When it comes to selecting a metal detection solution for the inspection of food products in vertical form, fill and seal processes, there can be only one choice: – A METTLER TOLEDO Safeline Throat detector.

Advanced Metal Detection Technology at Your Fingertips

T and ST Series throat detectors are available with METTLER TOLEDO Safeline's advanced Profile software technology to provide the most advanced metal detection systems. A large, full colour touch screen interface with a Windows® style, icon driven menu provides easy, intuitive operator access. The interface simplifies procedures and places valuable process information at the fingertips of your whole manufacturing team.

T Series detectors are also available with Safeline's Signature software platform and push button membrane key panel operating system.

Major Benefits for Your Business

T and ST Series metal detection systems provide the means to deliver significant benefits for your business. Maximising product quality, enhancing manufacturing efficiency and delivering the ultimate level of protection for your customers is just the beginning.

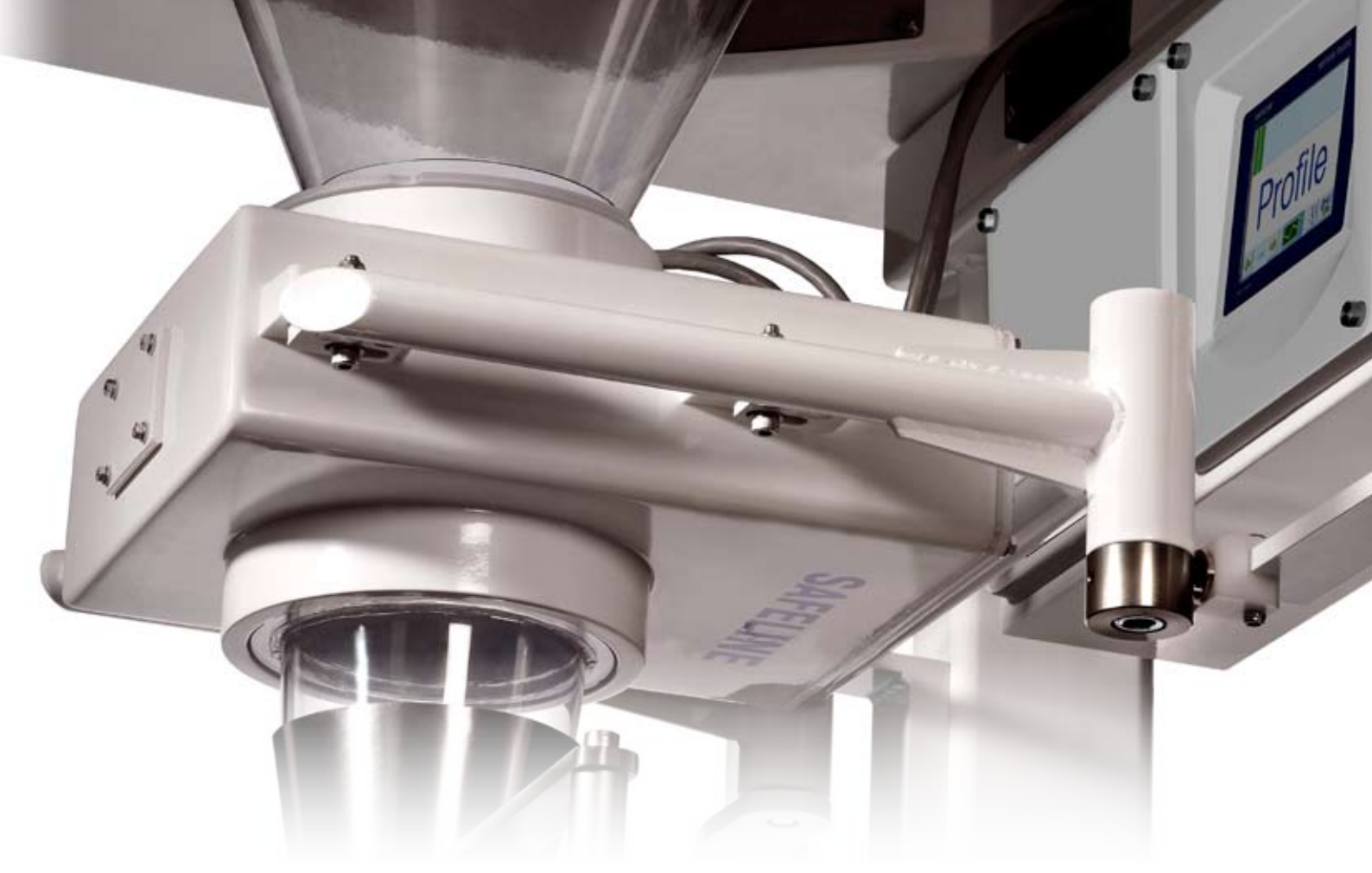
Supporting Your Compliance Needs

T and ST Series metal detectors can be installed at all critical control points (CCP) of your vertical packaging production processes to enable your business to comply with HACCP requirements and the broader needs of external food safety regulations and standards.

All detectors support compliance with the GFSI standards and external codes of practice including:

- BRC (British Retail Consortium)
- IFS (International Food Standard)
- SQF 2000 (Safe Quality Food)
- FSSC 22000/PAS 220





● **Increased Productivity**

T and ST Series metal detectors enable productivity to be optimised to ensure uptime is maximised and costly downtime is all but eliminated. This effectiveness is realised through:

- Simple set-up and operation
- Reliable, consistent performance
- Low maintenance requirements
- Easy clean system designs



● **Improved Competitiveness**

The combination of increased productivity, high sensitivity and reduced manufacturing costs enables your business to win more customers by providing:

- Compliance with regulatory and industry standards
- Improved hygiene standards
- Protection of your brand and your reputation
- Maximised product quality

● **Reduced Manufacturing Costs**

T and ST Series technology enables overall lifetime costs to be managed and kept to an absolute minimum through:

- Eliminating false rejects & product waste
- Reducing performance validation requirements and costs
- Utilising innovative, future-proof design
- Minimised installation costs



Read more on T and ST Series

www.mt.com/safeline-vffs

Detecting Metal Contamination

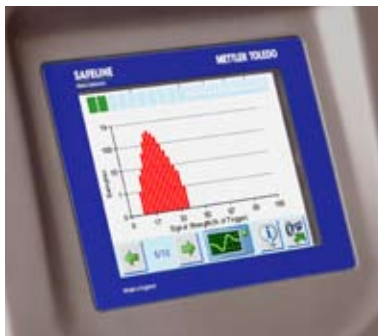
For brand and customer protection

The comprehensive range of "throat detectors" from METTLER TOLEDO Safeline provides a flexible and fully integrated solution to all vertical packaging metal detection applications.

T and ST Series detectors are particularly suitable in instances where metallised film packaging materials are used in vertical form, fill and seal bagging operations. Inspection of the product takes place immediately before it enters the bag overcoming any limitations created by the wrapping material ensuring the highest levels of sensitivity are achieved.

Maximum Detection Sensitivity

The use of ultra-high frequency operation and multi frequency technology combined with new software algorithms enables the signals given off by all metallic contamination to be identified and amplified to aid detection and removal. T and ST throat detectors are capable of detecting metal particles smaller than 0.5 mm in diameter for all metal types including ferrous, non-ferrous (including aluminium) and non-magnetic stainless steels.



Collecting Historical Data to Improve Ongoing Performance

The background signal strength of all products inspected is collected and displayed in the form of an on-screen product histogram. This can be used to give an in-depth historical picture of critical process data and can support the making of informed decisions to maximise process efficiency and effectiveness.



Long Term Detection Stability for Maximum Uptime

Installed as standard to all T and ST Series throat metal detectors is Safeline's renowned Auto-Balance Control and Enhanced Noise and Vibration Immunity systems. These features deliver long term in-process performance and stability reducing the risk of false rejects, minimising product waste and increasing operational efficiency.



SAFELINE



User Access Log for Greater Process Control

The control of manufacturing processes is supported through an automated user access log facility. This feature enables data to be reviewed to establish when system access was made and by whom. This helps with the management of line personnel and ensures the greater levels of due diligence demanded by retailers and external standards are met.



Meeting Performance Verification and Compliance Needs

Missed performance validation tests can compromise quality standards and lead to non-compliance issues. T and ST Series detectors with Profile technology advise when test routines need to be performed and when testing is overdue via highly visible screen messages.

Suitable for all working environments

Detectors are available in a choice of finishes to suit all applications. Painted finish can be selected for use in dry, non-aggressive environments whilst stainless steel construction is available for more demanding applications. A rugged stainless steel version with heavy duty sealing is also available for the most challenging situations such as IQF product packaging processes.



Flexible System Integration For Maximised Process Efficiency

Optimising process efficiency is essential to meet the demands of your customers and maximise the profitability of your business. T and ST Series metal detectors are a flexible, easy to install solution offering a wide range of benefits to enhance productivity and minimise downtime.

The full range of throat metal detectors from METTLER TOLEDO Safeline offer full integration and compatibility with all leading weigher and bag maker combinations to make installation and ongoing manufacturing processes seamless.

Permanent Condition Monitoring

ST throat detectors incorporate advanced Condition Monitoring technology which constantly analyses and tracks the performance of major system components. Adverse trends are highlighted as an early warning in advance of actual failure enabling the issue to be addressed when the machine is off-line to avoid lost production time.

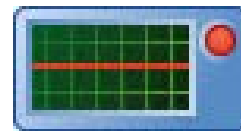
T Series detectors with the Profile operating system also benefit from the Condition Monitoring feature.



System Healthy



Early Warning



Fault Condition



SMS & Email Communication

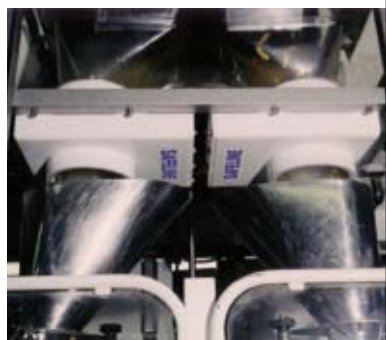
Throat detectors using Profile technology include the facility to communicate important messages to key business personnel using unique email and SMS text messaging facility. This ensures mission critical data is in the hands of those that matter so that process efficiency can be maximised.





Minimum Insertion Space

Benefiting from METTLER TOLEDO Safeline's patented Zero Metal Free Zone (ZMFZ) technology and its Internal Cancellation Field (ICF) containment technique, T and ST Series detectors can be installed in the sometimes extremely small spaces available between the multi-head weigher discharge chute and the tube of the VFFS bag maker. This is achieved without compromising sensitivity performance.



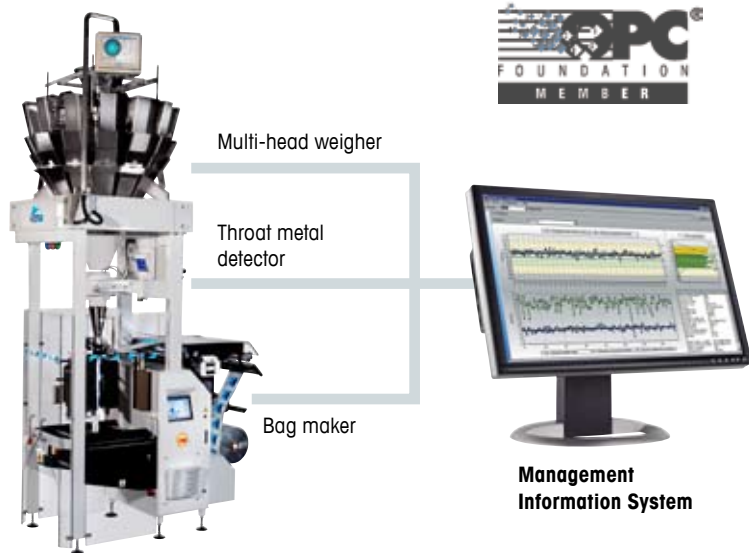
Ancillary Equipment Makes Installation Easy

METTLER TOLEDO Safeline T and ST Series metal detectors provide the ultimate in flexibility and offer a high degree of customisation for easy integration into any vertical packaging process regardless of the application. A full design service is available to provide the necessary support frames and feed funnels to integrate with all new and existing weigher bagger combinations. Ancillary and support equipment available includes:

- Non-metallic feed funnels
- Fixed mounting brackets
- Sliding Frame detector mounting
- Swing Frame detector mounting

Improved Data Collection to Maintain Records

T and ST Series detectors can be configured to incorporate a full range of data collection options. Solutions available include the incorporation of simple sockets to facilitate external print device connection through to the most sophisticated Ethernet connectivity networked facilities using industry standard OPC DA technology.



IPac – Creating the documentation to Support Compliance

T and ST Series metal detectors are supplied with a METTLER TOLEDO IPac installation and performance verification package to support ongoing compliance with internal and external standards. This comprehensive package provides full documentation for the installation, commissioning and verification process to ensure audit requirements are met every time.



www.mt.com/metalDetection

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