Reasons to Use METTLER TOLEDO X-ray Inspection Systems

1 Reliable Product Safety
   Through Outstanding Detection Sensitivity

2 Automated Product Set-up
   Ensures Uptime and Ease-of-use

3 Minimum False Reject Rate
   Reduces Product Waste

4 Class-leading Software Capabilities
   For Reliable Brand Protection

5 Outstanding Reliability
   With global service and local support
Today, the food and pharmaceutical industries rely on innovative technologies to facilitate business critical operations, production processes and meet Key Performance Indicators (KPIs).

With the technology advancements, METTLER TOLEDO’s X-ray Series consists of the widest group of specialist x-ray solutions on the market, including dedicated x-ray systems for packaged, glass and canned products as well as pumped and bulk applications.

They can be installed at different stages of a production line, inspecting incoming goods for contaminants such as metal, glass, mineral stone, calcified bone and high-density rubber as well as further down the production line, during processing and end-of-line packaging.
X12 X-ray System
Simply Safeguarding Your Business

The X12 is the latest addition to the METTLER TOLEDO X-Series and fills a market need within our packaged x-ray product range. It uniquely combines the latest ContamPlus™ x-ray inspection software with an Optimum Power Generator, enhancing detection sensitivity and minimizing false reject rates. This combination enables fully automated product set-up and changeover, reducing not just user errors but also increasing operation efficiencies. To find out more visit www.mt.com/xray-x12.
1. Reliable Product Safety
Through Outstanding Detection Sensitivity

METTLER TOLEDO’s advancements in technology, such as our intelligent x-ray software, automated set-up capabilities and a range of generators and detectors, enable our x-ray systems to offer outstanding levels of detection sensitivity. This means physical contaminants, such as metal, glass, mineral stones, calcified bone, dense plastics and rubber compounds, are easier to detect.

Each x-ray solution suits specific applications and package type sizes to ensure outstanding detection sensitivity levels. By optimizing the x-ray image contrast for each individual application, detection sensitivity levels are increased, enabling the x-ray systems to find a wide range of contaminants, irrespective of size and location within the product.

“By combining intelligent software, automated product set-up and the right generator and detector option, detection sensitivity levels are significantly improved.”

How significant is increased detection sensitivity?

Manufacturers can have confidence that food and pharmaceutical products containing small, hard-to-find contaminants, plus product and packaging presentation defects, are rejected.

- Increase brand protection
- Ensure product safety
- Comply with retailer Codes of Practice, food and pharmaceutical safety standards
- Avoid product recalls
- Reduce customer complaints
2. Maximum Uptime and Ease-of-Use
Through Automated Product Set-up Capabilities

The intuitive high performance x-ray software, with either semi- or fully automated product set-up, reduces the need for manual adjustments and the likelihood of human programming errors.

Automation allows for quicker product changeovers, ensuring that production uptime is maximized and outstanding detection sensitivity levels are achieved consistently.

“Automation enables manufacturers to avoid inspection errors, increase operational efficiency and save costs.”

How does automated product set-up benefit food and pharmaceutical manufacturers?

Enabling the automation of product set-up and changeovers brings record inspection start-up times, increases production uptime and reduces programming errors. Manufacturers benefit from obtaining the best contaminant detection results possible, thereby protecting brand integrity and reputation.

- Safeguard products
- Minimize manual programming errors
- Improve production uptime & costs
- Reduce operator training time & associated costs
- Achieve food and pharmaceutical safety compliance
3. Reduce Product Waste
Through Minimum False Reject Rates

False Reject Rates (FRR) occur when good products are rejected and can result in increased product waste costs and lost manufacturing time in order to rectify the issue.

Our x-ray inspection software ensures minimum FRR, through automating set-up procedures and establishing outstanding detection sensitivity levels. To achieve this, the x-ray system is set at the optimum inspection level to only reject substandard products, as specified by a brand’s requirements. It also minimizes the probability of FRR increasing, whilst maximizing detection sensitivities. Food and Pharmaceutical manufacturers can have full confidence that their profits are protected from avoiding unnecessary waste and downtime.

“Focusing on detecting and rejecting faulty products will protect consumers and safeguard manufacturing profits.”

Why is a low False Reject Rate so important?

Having FRR results in increased product waste, reduced manufacturing profits and productivity downtime. To minimize this impact, manufacturers should select x-ray systems that increase detection sensitivities according to specific individual products without raising FRR.

- Maximize profitability
- Avoid product waste
- Reduce operation time & costs
- Lower total cost of ownership
- Improve manufacturing efficiency

Intelligent X-ray Inspection
4. Secure Brand Protection
With Class-leading X-ray Software Capabilities

METTLER TOLEDO’s proprietary x-ray inspection software provides the powerful intelligence for the X-Series to achieve outstanding detection sensitivity to complete a wide range of quality assurance checks. Advanced software algorithms further increase contaminant detection and integrity examination capabilities, resulting in improved product safety. Easier to use than traditional software, our x-ray systems are quickly programmable to maximize uptime.

Our software is developed in house by engineers who understand manufacturing processes and pressures firsthand. The x-ray images are date- and time-stamped and stored, which can be used to prove due diligence that quality assurance examinations have been completed to the highest standards and for traceability. Analyzing the data further enables manufacturers to enhance operational efficiency.

“Intelligent x-ray software ensures that manufacturers can uphold product safety values and improve operational efficiency.”

Why is x-ray inspection data so important to manufacturers?

Proof that product inspection activities are carried out at the highest levels will give existing clients confidence that brand protection is a top priority for the manufacturer. This will help extend existing contracts, facilitate food and pharmaceutical safety compliance and possibly secure new business. In the event of a product recall, inspection data will provide traceability and help prove due diligence has been exercised.

- Uphold product safety
- Win new contracts
- Improve operational efficiency
- Provide traceability
- Maximize uptime
5. Outstanding Reliability
With Global Service & Local Support

Uptime is a top KPI for any manufacturer of food or pharmaceutical products. If a production line stops due to unplanned maintenance work or if replacement parts must be ordered, this causes major operational headaches plus loss of time and money. We support and service your equipment through its entire lifecycle, from installation through calibration, preventative maintenance, and repair.

Let us be your trusted advisor and provide the necessary service balance between environment requirements and your production needs.

Service Contracts

Service contracts should form part of each x-ray purchase. Regular servicing of an x-ray system, including performance verification, will ensure that the x-ray system is operating continuously at the optimum level of performance, preventing food and pharmaceutical safety incidents. Preventative maintenance enables manufacturers to avoid downtime issues due to unexpected maintenance work.

Why are service contracts important?

X-ray inspection systems are designed to accommodate all production environments, no matter how harsh. To ensure the x-ray system is continuously operating at peak condition throughout its entire lifetime, it is recommended to regularly test and maintain the x-ray system by qualified x-ray inspection experts.

- Improve product safety
- Increase uptime and avoid unexpected downtime
- Reduce operational costs
- Ensure peace of mind
- Safeguard profits

All METTLER TOLEDO X3000 x-ray system generators come with a five-year warranty when a standard or comprehensive care service contract is purchased. By protecting the most valuable part of the x-ray machine, manufacturers can have confidence that production uptime is safeguarded.
Global Network of Local Experts

A global network of local service engineers who specialize in x-ray inspection are available throughout the world. This localized service reduces manufacturing downtime and improves operational efficiency. Support is available throughout the complete x-ray system’s lifecycle, including installation, preventative maintenance, performance verification, equipment repair and customer training.

Our approach to service is underpinned through four key pillars of support:

**Uptime**
- Regular preventive maintenance to maximize equipment uptime
- Professional repairs using genuine METTLER TOLEDO spare parts and kits
- Dedicated service contracts to minimize risks and ensure equipment is always operating at peak performance.

**Performance**
- Professional setup and configuration to meet agreed performance levels and ensure compliance
- Regular performance verification to ensure equipment continuously runs at peak performance
- Regular updates & upgrades

**Compliance**
- Professional documentation and certification of compliance-related service activities
- Expert startup to meet highest food and pharma standards with iPac (Food) or EQPac (Pharma)
- Regular legal verification to ensure your checkweigher meets legal tolerances

**Expertise**
- Training for operators, quality and maintenance staff
- Comprehensive solutions literature and technical documentation
- Expert trusted advice and solutions consultation

METTLER TOLEDO has Sales & Service Organizations in 39 countries as well as Distribution & Service Partners in most other territories across the globe. In total, our products and services are available in over 100 countries.
Production line space is becoming increasingly precious across all industries, driving the need for powerful, space-saving solutions. METTLER TOLEDO’s broad portfolio of combined solutions delivers machines with the industries' smallest footprints, combining two or more inspection technologies.

An X34 x-ray inspection system can be integrated with a C-Series checkweigher to offer compliance with industry and retailer standards, safeguard brand reputation and ensure the highest process safety and security whilst reducing Total Cost of Ownership (TCO). Furthermore, the C-Series checkweigher can also be integrated with either metal detection or vision inspection systems.

Do You Want to Learn More?  ▶️ www.mt.com/pi-integrated-solutions

**Checkweighing**

The C-Series checkweighers serve as the base for most combination systems. The modular platform allows configurations from standard to highly complex. The systems reliably avoid underfill and ensure compliance with weighing regulations, whilst providing brand protection and reducing costly overfill.

▶️ www.mt.com/checkweighing

**Checkweighing + X-ray Inspection**

The CX35 checkweigher can be integrated an X34 x-ray system to provide contamination detection and quality control for food and pharmaceutical applications. This combi solution is ideal for end-of-line inspection of small to medium sized packaged retail products of up to 10kg, combining fast weight data capture and outstanding product safety.

▶️ www.mt.com/xray-inspection
Enhance Production Line Performance
With Digitalization and Data Management

Food and pharmaceutical manufacturers are increasingly using more intelligent systems to improve automation and traceability within their plants. Connecting manufacturing equipment across networked infrastructure improves production line efficiencies and management control.

Digitization and real-time data collection are key enablers to ensure the highest levels of regulatory compliance, accountability and governance. ProdX PC-based client server software monitors and manages data collected from METTLER TOLEDO product inspection systems, fully documenting the handling of suspected contamination incidents, weights, set-ups and inspection routines.

It is a powerful and effective solution to:

Enhance Quality Processes:
- Meet the requirements of GFSI-approved bodies
- Fully support the fulfillment of retailer audits
- Enable faster and more targeted reaction to incidents and document corrective actions
- Automate collection of data, including logging of all alarms, warnings and activities

Improve Production Efficiencies:
- Track and evaluate production data to maintain and improve OEE
- Provide an unparalleled volume of historical “big data”
- Simplify production line operation

• Performance Verification Report ensures the equipment is performing as expected.
• Incident monitoring allows Quality Managers to add corrective actions for continuous improvement.
• Automatic collection of counters and statistics even during network interruptions.
• Easy and fast product and batch changeover for all product inspection devices via the HMI or OPC UA server.
• Complete log of all rejected products with time stamp. Corrective action for each incident can be entered centrally.
Product Inspection Solutions
To Improve Quality and Productivity

We go beyond x-ray inspection. Our Product Inspection division is a global leader in the field of automated inspection technology, providing metal detection, checkweighing, x-ray inspection, vision inspection and track and trace solutions. As part of a truly global business, we draw on a wealth of industry experience gained by working in genuine partnership with our customers worldwide. We are dedicated to serving the needs of our customers during the full lifetime of their equipment.

Each solution we offer is the result of many years’ experience gained by working in close partnership with our customers in a wide variety of industries and markets, throughout the globe. We have an in-depth understanding of the challenges faced by manufacturers, and over the years have responded to the diverse requirements of our customers by developing the biggest product portfolio in our industry.

For more information
www.mt.com/safeline-xray