

# Product Inspection



## Product Inspection Solutions

Achieve Compliance  
Maximize Productivity  
Reduce Quality Costs

## Solutions to Industry Challenges

### For Pharmaceutical Manufacturers

METTLER TOLEDO

# Quality and Efficiency

## Meeting Industry Requirements

For pharmaceutical manufacturers and packagers, market growth, cost pressure, increased production complexity and regulatory requirements are key challenges. New Track & Trace regulations multiply these further. Product inspection solutions directly address these challenges.

### How product inspection solutions can help you:

#### Achieve Compliance



The regulatory landscape is constantly evolving.

Product inspection technology makes it easier to meet current requirements and provide cost effective solutions that can adapt to future needs.

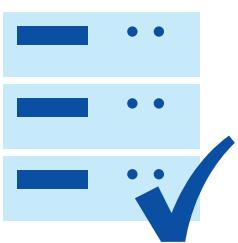
#### Maximize Uptime



Improving operational efficiency is essential to maintain competitiveness.

Our technology can help maximize effectiveness and cope with increasing production complexity.

#### Reduce Quality Costs



The cost of quality management including regulatory compliance is significant.

Automated in-line product inspection processes make affordable quality assurance a reality.

METTLER TOLEDO Product Inspection solutions make pharmaceutical manufacturing easier

## Partnering with METTLER TOLEDO

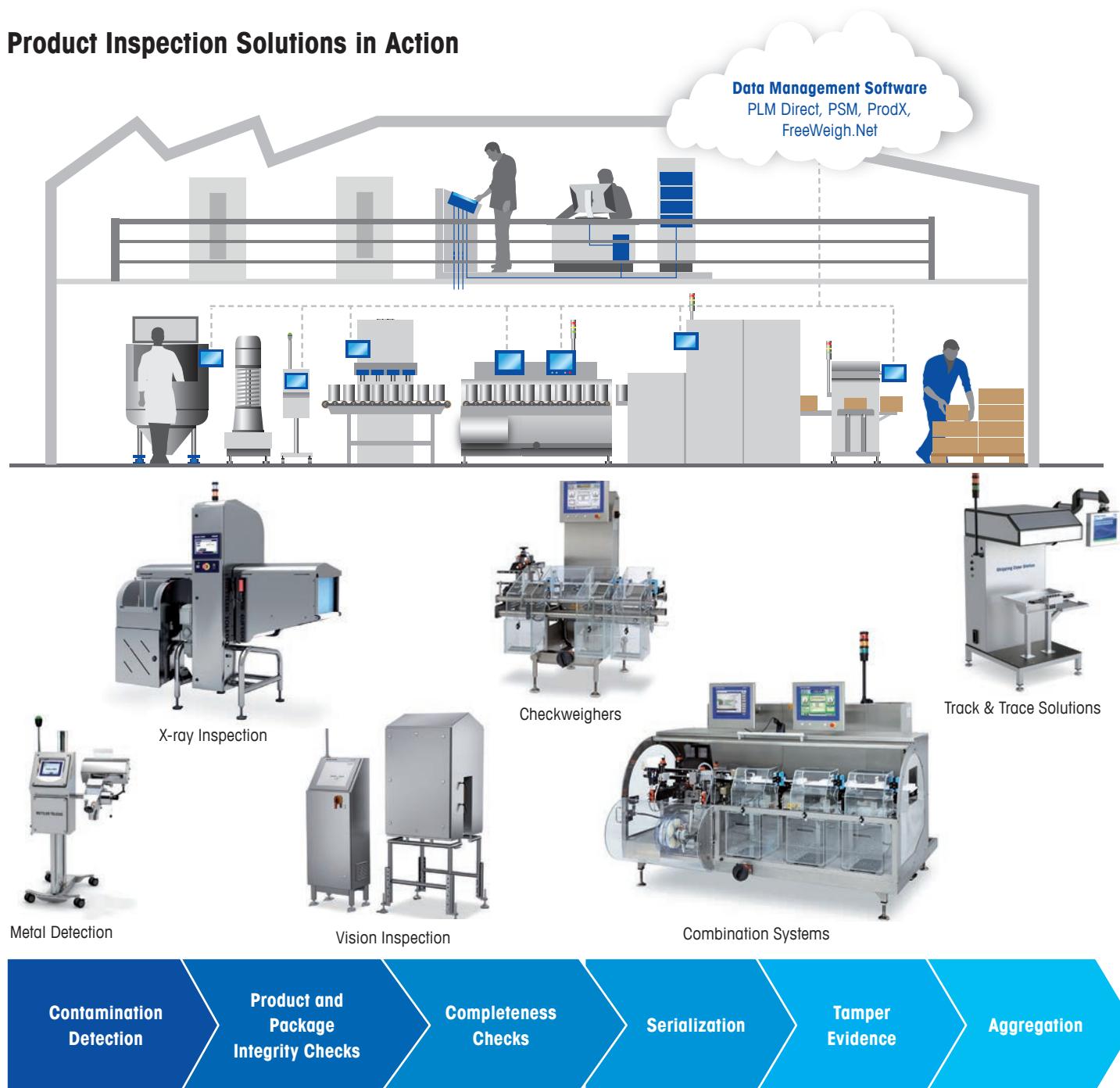
METTLER TOLEDO offers an industry-leading portfolio of precision instruments and services for multiple applications in research and development, quality control, production, logistics and retail.

METTLER TOLEDO has decades of experience in product inspection solutions that are at the core of pharmaceutical operations.

- Our **integrated systems** can be found everywhere from the inspection of raw materials and pre-filled packaging components right through to the checking, marking and verification processes of end products
- Our **software solutions** support the efficient management of data, process automation and data integrity. This helps in meeting regulatory requirements and improving production efficiency
- **METTLER TOLEDO Service** offers local support to help you get the best value from your product inspection equipment throughout its life

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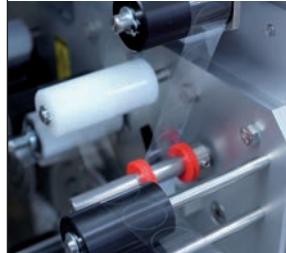
## Product Inspection Solutions in Action



# Efficient Track & Trace Solutions

## To Keep You in Business

In the pharmaceutical industry, regulatory compliance is non-negotiable. The new requirements include serialization and tamper evident solutions. METTLER TOLEDO offers a unique end-to-end portfolio of Track & Trace solutions, including integrated hardware, software and global service support.

Serialization Solutions	Tamper Evident Solutions	Track & Trace	Bundle, Case and Pallet Aggregation
 <p>Regulatory requirements such as the Drug Supply Chain Security Act (DSCSA) in the US and the European Falsified Medicines Directive (FMD) demand serialization of pharmaceutical products.</p> <p>From entry-level systems to integrated high-end vision inspection solutions, our modular serialization portfolio offers a perfect fit to help you fight the activities of counterfeiters.</p>	 <p>In line with regulations, METTLER TOLEDO solutions apply tamper evident seals to cartons at high line speeds immediately after marking and verification to defend against adulteration and counterfeiting activities.</p> <p>We offer combination systems to include tamper evidence, serialization and optional checkweighing – all in one, compact machine.</p>	 <p>Reliable and fast code-reading technology, coupled with the latest integrated camera controls, ensures the smooth execution of packaging quality control procedures.</p> <p>Central line and data management software modules support regulatory compliance including 21CFR Part 11.</p> <p>As a result, ease of use and seamless integration into the packaging process are assured.</p>	 <p>METTLER TOLEDO offers a portfolio of aggregation solutions including stand-alone systems and OEM kits to be integrated into existing packaging lines.</p> <p>Our Track &amp; Trace solutions manage data related to all packaging, from single products to palletized loads, thereby increasing supply chain security.</p>

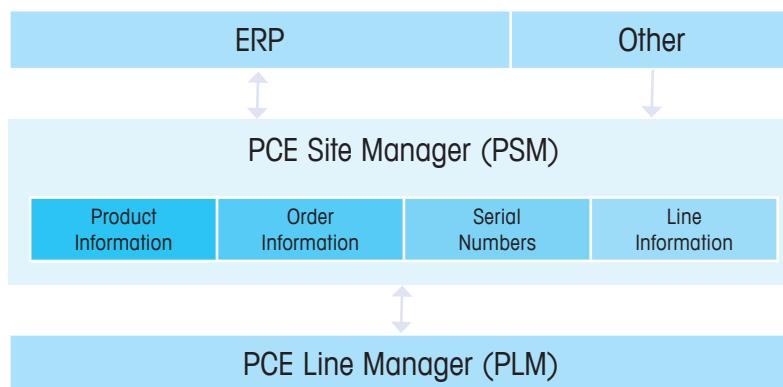


### What our customers say:

"The XS2 MV TE system has proven to be a reliable solution that meets our requirements when it comes to safety markings and tamper-evident seals. It combines a reliable weighing unit with a Track & Trace system and a tamper-evident labeler to ensure final product quality."

We use PLM software to generate and store printed codes, serial numbers, and image information. PSM provides a direct connection to the Krewel Meuselbach production database and gives those responsible for quality management valuable information from multiple production lines at both production sites when necessary."

**Source:** Krewel Meuselbach GmbH, Germany



### Regulatory Compliance

### Modular Solutions Portfolio

### Compact Combination Systems

### Coding & Verification

### Tamper Evidence

### Documentation for IQ / OQ / PQ

### Data Management from Printers to ERP & Cloud-based Systems

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# Increasing Process Efficiency

## For New and Existing Lines

**Latest growth forecasts suggest that future market demands may outstrip current production capacity in the pharmaceutical industry. Investments in new lines will be required to meet demand. To keep the required capital investment at a minimum, existing line efficiency must be improved.**

Avoiding line jams and stoppages is essential to maximize uptime. METTLER TOLEDO's solutions operate at high speeds with efficient product handling and effective reject mechanisms resulting in minimal false rejects for optimum efficiency.

### Handling Products Efficiently



Handling light-weight and fragile products at high line speeds can be challenging. Stabilizing tall or unstable products to obtain accurate weighing can be difficult.

Our industry expertise and range of handling solutions which have been developed over many years ensures maximum line efficiency.

### Avoiding Line Jams and Stoppages



Transporting products efficiently while avoiding line jams is critical in maintaining line performance.

Built in flap and closure sensors check the integrity of each carton to ensure they are fully closed. Misaligned or askew cartons are also detected. Removing non-conforming products avoids downstream issues and minimizes downtime.

### Maximizing Production Line Speeds



Running at high speed brings clear benefit in output but efficiency must not be sacrificed in the process.

Our inspection solutions are designed to deliver the highest levels of detection sensitivity, weighing accuracy, print quality, and package security at high line speeds.



### What our customers say:

"Effective handling of our products at high speeds is critical to our process efficiency. The checkweighers' enhanced software and mechanical features support the detection of open flaps and misaligned packages to protect downstream equipment and avoid jamming. The checkweighers are modular in construction, which allows for future adaptations to meet new requirements, such as pharmaceutical serialization and anti-counterfeiting measures."

**Source:** Cinfia, Spain

**Limit Capital Investment**

**Efficient Product Handling**

**Optimize Line Performance**

**Reduce Line Jams and Downtime**

**Limit False Rejects and Waste**



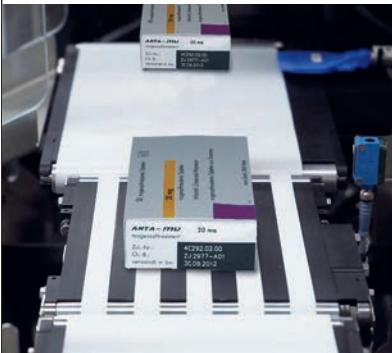
C3570 Pharma checkweigher

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# Consistent Quality

## Perfect Product Presentation

**It is crucial to check for contaminants within the product and ensure completeness of the final package. The challenge is to achieve this in a cost effective manner. Inspection before, during and after packaging is the only solution. The core technologies offered by METTLER TOLEDO ensure the highest quality products for your customers.**

Completeness Checks	Package Integrity Inspection	Foreign Body Detection and Rejection
 <p>Efficient product handling ensures every package is checked for completeness without slowing production speeds as they pass through the checkweigher.</p> <p>Checkweighing one hundred percent of products avoids the need for periodic statistical checks and improves product quality and consistency.</p>	 <p>Packaging errors increase costs and can damage a manufacturer's reputation.</p> <p>Checkweighing, x-ray and vision inspection technology perform product and package integrity checks to identify quality issues and ensure any non-compliant elements are removed before they reach the supply chain.</p>	 <p>Contaminants such as foreign bodies in raw materials or fragments like broken filter wires introduced during the production process present a hazard to consumers.</p> <p>Metal detection and x-ray inspection systems find and remove foreign body contaminants to ensure the highest quality.</p>



## What our customers say:

"The TablexPRO not only improves the quality of our products, it also reduces production costs thanks to its accurate rejection process and quick setup. The documentation and data recording functions help us meet our quality requirements in order to comply with GMP and FDA regulations."

**Source:** Rottendorf Pharma, Germany

TablexPro Lift Flap metal detector



"Acino relies on checkweighers from METTLER TOLEDO in the production of its plasters. In the final packaging area, packages containing pain relieving plasters are checked for completeness, even though each plaster weighs just two grams. Here, the checkweigher effortlessly detects both underweight and overweight packages and rejects any boxes with incorrect weights from the production line."

**Source:** Acino Pharma, Switzerland

## Product & Package Integrity Checks

## Completeness Checks

## Coding & Verification

## Foreign Body Detection

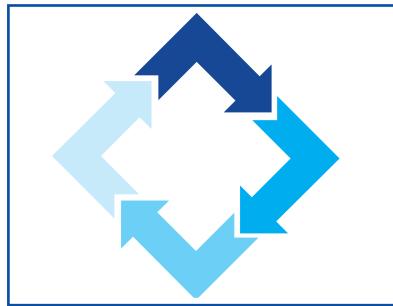


# Supporting You In Product Inspection Projects

**METTLER TOLEDO offers a unique approach to project management. This ensures our equipment and software are designed, manufactured, installed and commissioned correctly. Our after-sales support helps you to maximize the return on your investment.**

We offer comprehensive support to help you optimize performance, from detailed gathering of information to fully understand your needs through complete analysis of regulatory compliance requirements, such as GAMP5, 21CFR Part 11, and verification procedures.

## Design Expertise and Equipment Safety



Detailed consultation with you during the design phase will capture key factors such as operator safety and system integration.

Hardware/software functional design specifications are fully documented at the critical design qualification stage.

## Equipment Qualification



Projects are further supported and documented in our IPac Qualification and Verification packages.

We provide extensive documentation for installation, commissioning and verification to ensure internal and external audit requirements are met.

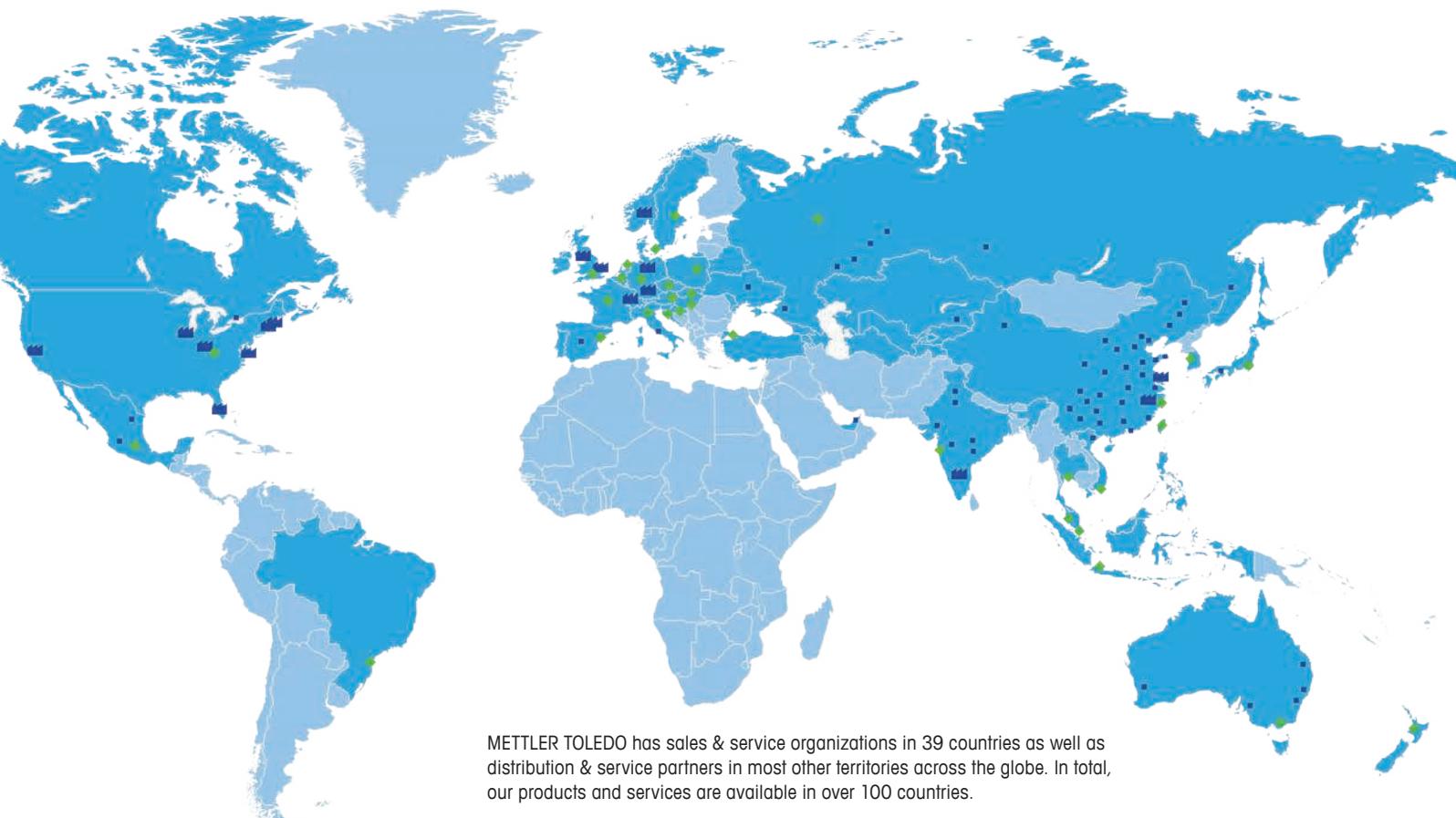
## Acceptance Tests



Factory Acceptance Tests (FATs) are conducted prior to delivery and before we move on to installation, operational, performance and maintenance qualifications (IQ, OQ, PQ & MQ).

The process is completed with Site Acceptance Testing (SAT).

This approach ensures all regulatory requirements are met and your equipment can perform effectively from day one.



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.

## Global Support Through a Local Expert Team

With a local presence in most industrialized countries, as well as selected partners in other regions, we are ready to serve you around the globe. Our geographically focused teams and partners are responsible for all aspects of sales, service and support. 7200 factory-trained service and sales specialists worldwide support you.

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



### Uptime

Dealing with day-to-day operational needs means optimizing every minute of uptime.



### Performance

Moving further up the service experience, we focus on performance and continuous productivity improvement.



### Compliance

Total compliance is a prerequisite. As new markets open, you need to be compliant in order to not miss any opportunities.



### Expertise

Your expertise contributes to uptime, performance and compliance. Well-trained operators are a key to success.

► [www.mt.com/service-pi](http://www.mt.com/service-pi)

# Four Inspection Technologies

## One Solutions Partner

### Checkweighing



Standard and highly customized checkweigher systems are built to suit your specific applications and environment, as well as your regulatory and industry requirements.

### Metal Detection



Metal detection solutions to ensure maximum detection sensitivity with minimum false rejects when inspecting meat and poultry products on conveyors, in pipelines, or via free-fall systems.

### X-ray Inspection



X-ray Inspection machines offer safety and quality assurance at every stage of the production process for unpacked and packaged products.

### Vision Inspection



Vision Inspection solutions are easily integrated into existing production lines, examining containers, closures, labels and coding to help manufacturers achieve the highest levels of accuracy, safety and compliance every time.

### Looking For More Information?

Browse our library and discover valuable resources on best practices, safety, compliance, global certification, research, product inspection applications and much more.

► [www.mt.com/pharma-pi](http://www.mt.com/pharma-pi)

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For more information

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