Manufacturing

Industrial Weighing and Measuring

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News

Hidden Optimization Potential
Inbound and Outbound Processing

With all of the manufacturing trend discussions from within the production line, it can be easy to overlook opportunities to optimize processes in other areas of your plant. Let's take a look at the hidden potential in receiving, packaging and shipping.

Transparency in receiving

Achieve full product traceability by tracking materials and parts right from the receiving dock. Use scales to check the quality of incoming goods, catch under- or overfilled shipments, and make use of the collected data to optimize your processes.

Cost savings in packaging

By reducing rework and reaching zero-error shipments you can achieve notable cost savings in the packaging process. Scales with advanced operator guidance help you to pick orders precisely and to reduce the time required by an operator.

Accuracy in shipping

Ensure you ship exact part and component amounts to your customer with precision scales. Then, simultaneously connect them to your ERP for full data collection and traceability.

By optimizing these areas, you can benefit from higher product quality and faster throughput. Read on for additional details on the full hidden potential that can be found in your receiving, packaging and shipping workplaces.

METTLER TOLEDO

Improve Supply Chain Efficiency
Solve 4 Common Pain Points

METTLER TOLEDO offers solutions throughout your supply chain. Check out everything we have to offer, then schedule an appointment with an optimization expert who can provide you with the know-how to get your operation running at maximum efficiency.

▶ **www.mt.com/ind-counting-brochure**

4. Monitoring
"We are more flexible with our internal supply chain planning and can analyze our data in real-time."

▶ **www.mt.com/collectplus**

1. Receiving
"By checking all incoming goods, our production planning works more efficiently. Undetected defect goods are part of the past." **Learn more on page 4**.

2. Packaging
"We increased our after-sales customer satisfaction by 25 percent due to complete and zero-error assembled kits."
Learn more on page 6.

3. Shipping
"The simple and secure handling of PowerDeck™ floor scales in our shipping area sped up our process by 20 percent." **Learn more on page 8**.

Easy, Fail-Safe Inbound Checks
Solutions to Fit Any Need

Time pressure is a big deal with incoming goods. It can lead to errors and inaccurate information for the following working steps. Weighing equipment helps you to ensure accurate counting of goods, conduct fast checks, and eliminate human errors.

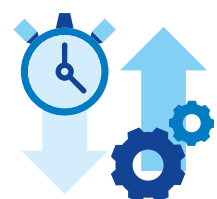▶ **www.mt.com/ind-counting-brochure**

Our Solutions

Completeness and spot checks
- Check amount of incoming goods against delivery note
- Detect under and over delivery
- Spot-check large deliveries

Single parts and quality control
- Check single parts and complete your production part approval process (PPAP)
- Control parts from light to heavy weights and up to bulk quantities

Operator guidance
- Reduce human errors due to time pressure
- Optimize and speed up processes
- Save time with easy-to-understand equipment

Your Benefits

Incoming goods can be the start of incorrect data gathering in your factory. The amount of goods on the delivery note often differs from the real amount of delivered products.
- Check completeness of delivered products, no matter the size, shape, or weight of the parts. Define the average piece weight with a referencing scale for an exact counting result and check the complete shipment with a weight platform for heavy loads as well as smaller, lightweight batches.
- Spot checks help you to keep track of incoming goods that consist of many shipments. Sample controls are also important when receiving different batches of the same product.

▶ **www.mt.com/manufacturing**

Constant time pressure can eliminate the ability to check all incoming goods. Thus, spot checks and single-parts control must be easy to conduct and fail-safe.

Control the quality of incoming goods with weighing equipment. Weighing is the optimal and most exact tool to check modules for completeness and detect the tiniest material deviations or cavities. Predefined set weight targets can prompt the worker if a product is out of spec.

▶ **www.mt.com/ICS5-manufacturing**

Time is a critical factor when it comes to optimization potential. Inbound processes such as checking incoming goods and unpacking/preparing material and parts for next steps all cost working time and should be executed as fast as possible. Workers have time pressure, but still need to perform tasks accurately.

An ideal option is to support operators by providing control equipment that prompts them through their working steps, and directs their actions with color-coding for fail-safe use. High inventory time and human errors can be reduced significantly with METTLER TOLEDO products.

▶ **www.mt.com/ind-colorweight-simulator**

100% Checked Kits
Improve Quality with In-Line Completeness Checks

To avoid missing parts or incorrect filling of packages and kits, there is a simple solution: An in-line quality check based on weight that reduces packaging errors, whether the package is filled with small, big, or mixed-size parts.

Parts and components manufacturers often ship products in kits. These packages may enclose accessories or parts needed for repair or assembly. Unfortunately, bags are often sent out incomplete or overfilled due to insufficient quality control.

In many cases, missing small parts are responsible for incomplete assembly and production delays, upsetting customers. The manufacturer must then deal with the aggravation of costly returns, warranty issues, and loss of business.

For producers, the question is: How can I make sure packages are complete without delaying production?

Easy completeness checks

To ensure your package contains enough products, place a scale under the shipping box or conveyor belt and check the total weight of every item placed inside. Predetermine the total weight of a correctly filled package and save it in the scale terminal's database. Every kit that passes through the weighing station can then be checked for completeness quickly and reliably, enabling 100% quality control.
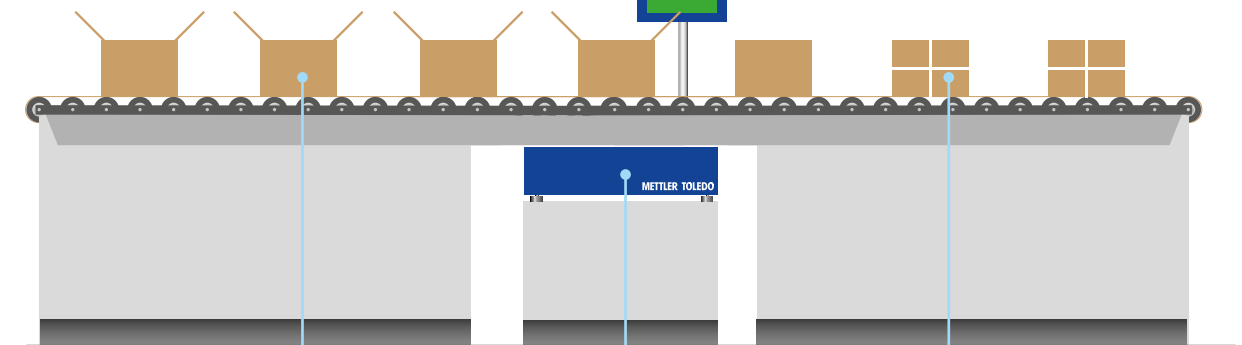
All package and lot sizes

This solution will improve packaging for bags of electrical, metal, or plastic components, accessories or spare parts, especially when the bags include very small products (less than 1 gram)

or a mix of light and heavier products. The form, size, or transparency of the kit does not matter. Weighing is versatile: it provides an opportunity to check the completeness of kits ranging from just a few items to several thousand items.

Missing parts notification

If missing parts are detected, the scale can remove faulty packages from the production flow. Alternatively, a color-Weight® display indication or a signal light can indicate if a package is not within the predefined parameters so an operator can remove it from the belt for adjustments.

Improve traceability

Adding a barcode scanner can make it easier to identify incomplete kits or bags and improve operational traceability. With a scanner, you can also track products leaving the facility and use captured data for internal quality analysis.

When used together, these solutions can significantly reduce incomplete kit complaints, helping to ensure customers are satisfied with their products.

▶ **www.mt.com/ind-in-process-counting**

Kits move along the conveyor belt towards the weighing station

Weighing system is integrated into the conveyor belt operation

Packaging 100% checked kits

PBK9 Weighing Platforms

Detect the smallest deviations with high-resolution PBK9 platforms, which are ideal for checkweighing kits and packages.

▶ **www.mt.com/PBK9**

Accuracy on Time, Every Time
Scale-Assisted Quality Checks

Shipping electronic parts around the globe just in time isn't an easy task, even for logistics experts. Counting scales speed up parts picking while ensuring accuracy in one of Switzerland's most modern warehouses.

Covering nearly 415,000 square feet, the DB Schenker warehouse in Switzerland offers land transport, air and ocean freight, contract logistics, and customs services under one roof. This modern warehouse provides enough space for speedy handling of high-tech goods, pharmaceutical products, and other industrial components. Time-critical and just-in-time shipments are everyday challenges.

DB SCHENKER

Background:
Handling parts orders
Electronic parts are often very small in size and high in value. When shipped around the world, customers expect their shipments to be correct. Sending back an incomplete shipment or waiting for missing parts to arrive causes production delays. To prevent these issues, it is essential to count even the smallest parts accurately before orders leave the warehouse.

Challenge:
Accurate and speedy picking
When an order arrives at the warehouse, efficiency is critical. Often there are only a couple of minutes from order entry to shipping. During this time, workers must check documents, pick from more than 6,000 articles including pieces less than one gram, count correctly, label, and immediately send them out. This means logistics workers have to operate precisely under immense time pressure.

Solution:
High-precision scale
DB Schenker prepared sophisticated standard operating procedures and provided operator training on the trusted METTLER TOLEDO ICS465 Counting Scale. The scale and advanced Monobloc load cells guarantee accuracy and speedy handling when counting parts weighing less than one gram. DB Schenker satisfies its customers worldwide and makes sure their packages are never missing pieces.

Quality checks with scales
Use scales as a quality checkpoint in your company and prevent costly recalls or customer complaints. Scales can check:
• Completeness of packages, kits, and shipping boxes
• Integrity of parts and components
• Application of fluids and lubricants
• Completeness of assemblies

▶ **www.mt.com/ind-packaging-with-scales**

ICS465 Counting Scale
The ICS465 Counting Scale is perfect for quality-check applications in warehousing, production, and packaging. It features an internal database, alibi memory storage, color-coded weighing result indication, and connectivity to printers and scanners.

▶ **www.mt.com/ICS465**

Solutions Across Your Processes
Maximizing Your Quality Potential

Requirements on weighing applications are versatile and can be influenced by the individual situation, environment, and handled products. Find the fitting solutions for your weighing applications in receiving, packaging and shipping workplaces. Find more information about the product portfolio for manufacturing applications.

▶ **www.mt.com/ind-ma**

Collect+, the Data Collection Software
- Collect data from any weighing device in your plant environment for further use
- Analyze the collected data and further attributes with the integrated dashboard
- Distribute and visualize the information anywhere – on PCs, laptops, tablets, of mobile devices

▶ **www.mt.com/collectplus**

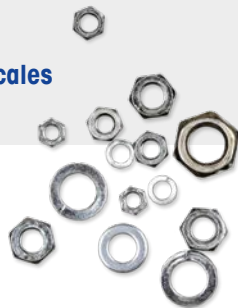■ Receiving   ■ Packaging   ■ Shipping

Bench Scales

Optimize your processes with accurate and easy-to-use precision bench scales. Appropriate for:
- Quality control
- Single-parts control
- Completeness check
- Referencing and counting

▶ **www.mt.com/compact-scales**

Floor and Truck Scales

Robust floor and truck scales deliver accurate and fast results in hectic environments. Appropriate for:
- Bulk and heavy loads
- Completeness check
- Checkweighing
- Totalizing

▶ **www.mt.com/floor-scales**
▶ **www.mt.com/truck-scales**

Compact Scales

Achieve quick operation while reaching zero-error goals. Appropriate for:
- Picking
- Simple counting
- Single-parts control
- Referencing and counting

▶ **www.mt.com/compact-scales**

Compact and Dynamic Scales

Exact order fulfillment and completeness checks reduce customer complaints and rework. Appropriate for:
- Order picking
- Totalizing
- Counting
- Completeness check

▶ **www.mt.com/over-under-checkweighers**

Gain Efficiency
Reduce Overproduction

Many so-called "waste tasks" happen during inbound and outbound processing. See how the most impactful waste can have a ripple effect throughout multiple process steps in your manufacturing operation and learn how weighing can help.

Waste #1: Overproduction

Producing items too early or producing too many of them results in many of the other 7 wastes: Overproduced items need to be transported to the warehouse, leading to increased time, excessive storage, unnecessary handling, and added costs.

How weighing can help

Verify your production quantities with weighing to avoid overproduction. Counting solutions help you to steer the material flow in semi-automated and automated production environments. Manual operations can be optimized with bench scales and colorWeight® functionality for secure and fast handling.

▸ **www.mt.com/ICS465**

Lean Manufacturing

Avoid Waste
with Smart Weighing Solutions

METTLER TOLEDO

To learn about all wastes and how lean can eliminate them, download the brochure:

▸**www.mt.com/ind-lean-manufacturing**

www.mt.com/ind-ma

For more information

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