

Tank Weighing
Solutions



Tank and Container Weighing

Smart Solutions for Food Manufacturers

METTLER TOLEDO



Accurate Tank and Vessel Weighing

Gravimetric level control is one of the most accurate tank inventory control methods. At METTLER TOLEDO, we offer smart ways to optimally weigh solids or liquids at any step in the production process.

► www.mt.com/food

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How can I accurately measure and fill materials?

Your Challenge



Reduce waste to minimize costs

Gravimetric filling is highly accurate and can operate in a small tolerance band. Using the full functionality of your weighing devices can ensure accuracy, help avoid product waste and ensure compliance.



Speed up filling processes to maximize daily output

Filling by weight is typically used to fill ingredients, liquids or mixtures into tanks or containers. Weighing works for products with challenging material characteristics and provides a fast fill process.



Reduce downtime with condition monitoring

Sensors in storage tanks can be difficult to reach and inspect. Remote monitoring allows for much more efficient maintenance and can significantly increase uptime.

Ensure efficient and accurate material handling

Our Solution

Gravimetric level control is the most accurate inventory control method to measure high-value solids or liquids inside tanks. Weigh modules are outside of the tank and not impacted by aggressive, hot, frozen, non-free-flowing or non-self-leveling materials.

► www.mt.com/ind-tank-weighing



Weigh Modules

Compression weigh modules such as SWB505 and SWC515 enable the quick and safe conversion of a tank into a scale. Built-in side load and lift up protection ensure that safety and precision are maintained.

► www.mt.com/ind-multimount



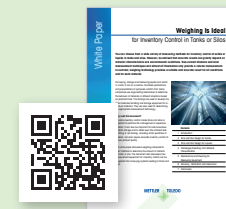
Weight transmitters

A weight transmitter delivers precise measurement and monitoring of load cells. The ACT350 supports easy connectivity and is ideal for use with strain gauge weighing technology.

► www.mt.com/ind-act350

Download the White Paper for free

Ensure accurate inventory control in tanks and silos



Download Now

www.mt.com/ind-wib

Ensure precise batching with smart weighing systems

Our Solution

Automated batching is used to efficiently control processing, improve product consistency and provide robust production data collection and reporting. Batching systems can also include blending and mixing operations to ensure optimal recipe weighing execution.

► www.mt.com/batching



IND780 Indicator

For fast and efficient automatic batching and dosing of materials, our range of automated indicators offer high performance and versatility for a wide range of applications

► www.mt.com/ind780



Hygienic MultiMount™ Weigh Module

The SWB805 is a fully approved hygienic weigh module. It is designed according to EHEDG guidelines and is NSF and GMP approved to ensure compliance.

► www.mt.com/ind-SWB805

Contamination Free Weigh Module

SWB805 is optimized for avoiding contamination and work in harsh environments.



Watch Video

www.mt.com/ind-video-sanitary-wm

How can I quickly and accurately fill tanks?

Our Solution

Filling by weight has many advantages compared to volumetric filling. A huge variety of materials can be accurately measured, regardless of the tank characteristics. METTLER TOLEDO can meet the challenge of just about any filling requirement.

▶ www.mt.com/filling



PowerMount™ Weigh Modules

Achieve repeatable accuracy and the industry's highest reliability in hazardous and non-hazardous areas. Performance of POWERCELL™ load cells can be monitored and provide alerts prior to serious trouble.

▶ www.mt.com/ind-powermount



IND360 Automation Transmitter

The IND360 compact automation indicator and transmitter helps you to connect all weighing technologies across a broad range of capacities. The high update speed enables the optimization of filling processes.

▶ www.mt.com/ind360

Cutting-Edge Performance

Boost your productivity and increase operational uptime with the IND360 indicator



Watch Video

www.mt.com/ind360

Streamline filling processes for every type of container

Our Solution

When filling intermediate bulk containers or small tanks you need fast, precise, and repeatable results. Our floor scales and filling scale indicators provide predictive maintenance for increased uptime and peak operational efficiency.

► www.mt.com/floor-scales



Precision hygienic floor scales

Contamination can have costly or even lethal consequences. Hygienically designed low-profile floor scales with electropolished surfaces, approved steel grades, and liftable load plates prevent cross-contamination.

► www.mt.com/ind-ss-floorscales



Filling indicators

The IND570 offers easy-to-configure software routines, discrete I/O, material storage tables, and more to enable accurate control of filling operations. All data is easily transferred to your MES or PLC.

► www.mt.com/ind-570

Filling of Mid- and Large-Sized Containers

A new guideline provides you with practical know-how to achieve the best gravimetric filling results

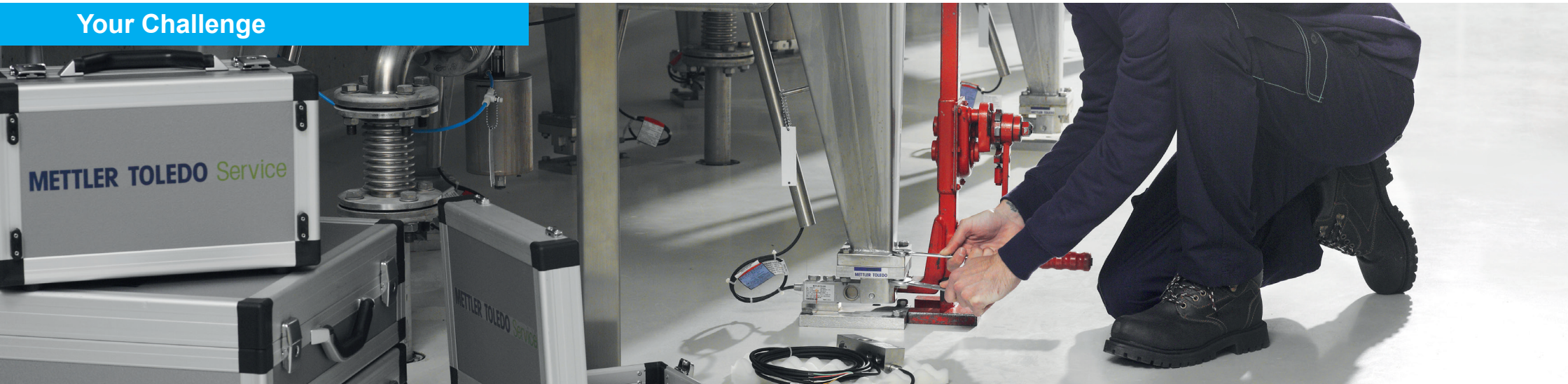


Download Now

www.mt.com/ind-large-volume-filling-guideline

How can I optimize my tank scale calibration efforts?

Your Challenge



Calibration costs

Tank calibration can be time consuming and typically requires a lot of purified water or test weights. This negatively impacts your production costs.



Production downtime

Calibrating multiple tanks requires long-term planning and can negatively impact productivity. Faster calibration procedures prevent longer downtime periods.



Compliance with quality system

Calibration with test weights or substitution materials is often impractical. Repeatability tests are typically not performed, which can make an audit challenging.

RapidCal™: The fast ways to consistent quality

Our Solution

When measuring large volumes, small deviations add up quickly and can also affect the quality of your batches. METTLER TOLEDO has a full package of calibration solutions to help ensure accurate, traceable and reliable weighing.

▶ www.mt.com/ind-RapidCal



RapidCal: Quick and Accurate

Gone are the days of having to rely on expensive calibration methods with uncertain accuracy results. The innovative RapidCal™ method offers an economical and fast calibration method without the need for heavy test weights or purified liquids.



RapidCal: How it Works

Instead of using test weights or substitution material, a downward force is applied with hydraulic equipment. The loading of the tank scale during RapidCal™ mimics that of normal operation to deliver fast, reliable results and ensure accuracy and quality.

RapidCal™ Tank Scale Calibration

Watch the video to see it in action



Watch Video

www.mt.com/ind-RapidCal

RapidCal™: An efficient method to reduce service costs

A large US-based supplier of aqua feed – food for commercial salmon fisheries – was not satisfied with its existing tank calibration solution. The company decided to try the efficient tank calibration solution, RapidCal, which resulted in reduced service costs and increased batch quality.

► www.mt.com/ind-RapidCal



Challenge: Increase work safety

At this site, tank calibration was performed with internal test weights and was very time-consuming and risked worker safety. It was dangerous to carry test weights inside of the often wet production area.



Solution: RapidCal

The innovative RapidCal method offers an economical and fast calibration method that is traceable and operates without using test weights or purified liquids or the risk of scale contamination.



Result: Improved safety and less effort

RapidCal provided economical and efficient tank calibration for over 27 tanks, which supported their worker safety goals and minimized interruptions to their operation.

Smart Dairy Batching Solution with SWB505 weighing modules

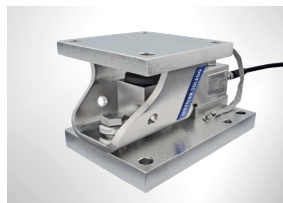
A New Zealand-based dairy company needed to integrate weighing solutions into its SAP system to enhance its manual formulation applications. New solutions now guide tank and bench scale formulations, helping to reduce waste and provide full traceability of the batching process.

► www.mt.com/ind-dairy-collection



Challenge: Increase automation

The dairy sought a customized recipe and tank weighing solution that would meet their need for high-precision weighing while being easy to integrate into their SAP system. The enhanced process security would help them ensure accuracy and product quality.



Solution: MultiMount and IND780

To convert their tanks to gravimetric fill control, they purchased 12 SWB505 WMF tank-weighing modules. All weigh modules were then connected to multiple IND780 batch indicators and integrated into SAP using a customized interface software.



Result: Increased batch quality

The customer is fully satisfied with the solution and the results achieved. Because operators are securely guided through the batching process, the risk of manual errors and wrong mixtures is reduced significantly.

How to select the right components?

METTLER TOLEDO supports you in designing your tank scale. During a consultation with our sales engineer, we calculate the impact of all components of the weighing system and summarize the results in a standardized Weighing Components Selector report.



This report summarizes all the critical aspects of your weighing application that includes:

- Application Summary
- Recommended Components
- Installation Recommendations
- Uncertainty Clarification
- Piping Calculation Recommendations

Download a sample report:

► www.mt.com/ind-component-selector

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