



Vehicle Weigh-in-Motion (WIM)
for Industry and Transport

**Maximize Operational Productivity and Cost Savings
With Proven, Reliable WIM Technology**

METTLER TOLEDO



When speed is critical and vehicle weighing is an integral part of the operation, METTLER TOLEDO's weigh-in-motion (WIM) system provides significant cost savings and other advantages over other weighing systems, such as axle scales and full-platform scales.

Why Use METTLER TOLEDO

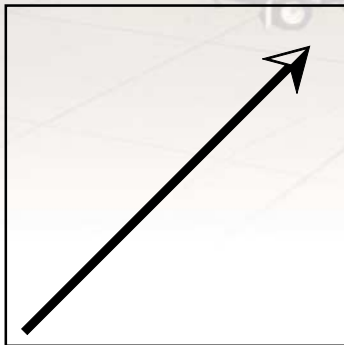
Given their successful performance in high-volume, often complex weight enforcement environments, load cell-based scales are considered the preferred WIM technology today. METTLER TOLEDO, the world's largest manufacturer of weighing systems, has offered load cell-based WIM solutions for over 15 years. Installed across the U.S. and around the world, METTLER TOLEDO's WIM systems continue to prove their operational reliability and accuracy in high volume applications. WIM systems are measured against the standards outlined in ASTM 1318-02, and METTLER TOLEDO exceeds the accuracy requirements for Type III and IV systems, or +/- 6% Gross Weight Tolerance at a 95% probability of conformity.

Combined with thorough project management and after-sales support, METTLER TOLEDO's WIM systems offer the reliability, accuracy, cost effectiveness and ease of use for which all METTLER TOLEDO's weighing solutions have long been known.

The METTLER TOLEDO WIM System

METTLER TOLEDO's WIM system includes two compact staggered scale platforms, each containing four rugged load cells and an inductive loop installed in the concrete approach to the scale. As a vehicle crosses the scale, software calculates individual wheel, axle, and gross weights that are captured by the system's powerful industrial computer. Data is then available for display on a CRT or scoreboard, stored on the hard drive, sent to a printer, or transmitted to a remote device. The system can also control traffic lights, gates, other peripheral equipment, and interface with cameras or AVI (automatic vehicle identification equipment).

SAVINGS USING METTLER TOLEDO's WIM SYSTEM



TRUCKS WEIGHED PER DAY

Key Benefits

- Instant check for road legal weight
- Fully unattended weighing operation
- Weighs hundreds of vehicles daily
- Daily reporting measures vehicle productivity



Traffic Light

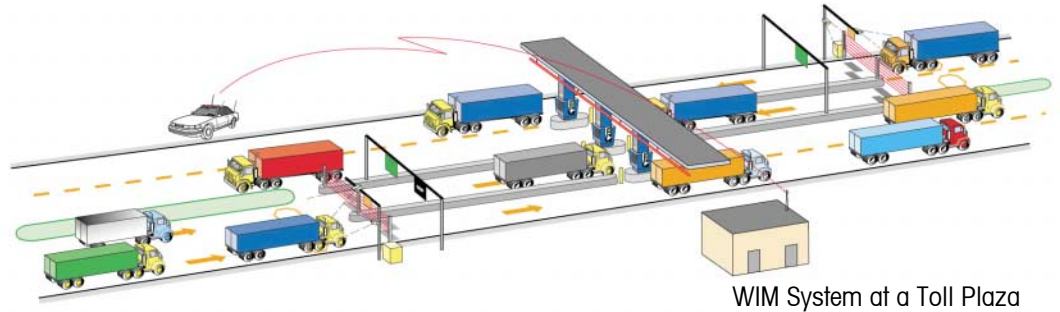
Cameras and AVI

Traffic Gate

Staggered scale platforms

Typical WIM System

- WIM scale
- WIM controller
- Optional traffic light
- Optional traffic gate
- Optional AVI reader



WIM for Trucking Terminals

Compliance with legal load limits presents unique challenges. Overloads can lead to fines and lengthy delays, as many states require overweight trucks to be off-loaded prior to returning to the road. Not only do axle and gross loads need to be checked, but compliance to the Federal Bridge Formula must be calculated. Close to one-third of all violations are related to Federal Bridge Formula noncompliance. Some states even have individual wheel load limits, which cannot be checked with axle or platform scales.

METTLER TOLEDO's WIM systems quickly and automatically check for potential gross weight, axle weight, and bridge formula violations. The type and location of the violation are pinpointed, allowing for precise load rearrangement so the truck can leave the terminal quickly. Weigh tickets can be printed, traffic signals or gates can be controlled, and weight data stored for future reference. Multiple reporting options allow for operational analysis to measure trailer and terminal productivity, all in a fraction of the time of operations using static scales



WIM for Seaports

Requirements exist for the weighing of containers prior to having cranes lift them onto container ships. Traditionally, static scales have performed this operation. For seaport operators needing to improve operational efficiency, METTLER TOLEDO's WIM system provides the ability to weigh thousands of containers daily without the delays caused by trucks stopping at static scales.

WIM for Toll Roads and Bridges

Toll authorities realize that weight, not the number of axles, determines wear and tear on their infrastructure. Therefore, many use weight-based tolling, which relies on weigh-in-motion technology to determine the proper toll classification while keeping traffic moving. The superior accuracy of METTLER TOLEDO's WIM systems allows for tighter weight tolerances, thereby maximizing toll revenue. Rugged construction ensures operational reliability.

WIM for Landfills

For applications in which landfill operators also own the vehicle fleet and legal-for-trade is not required, METTLER TOLEDO's WIM system offers productivity improvement and can capture EPA required weight reporting data.

WIM for Border Crossings

To protect highway infrastructure and maintain safety, it is essential to ensure that vehicles entering the U.S. are of legal weight. METTLER TOLEDO's WIM system allows for screening of overweight vehicles efficiently at high volume border crossings.



METTLER TOLEDO Installation and Service Support

METTLER TOLEDO offers comprehensive application engineering, installation, and after sales service support for vehicle scales via our broad-based network of technicians. Contact your local sales office for further information.

Typical WIM System Specifications

Model 9430	WIM Controller System Feature
Configuration	Rugged industrial PC in steel casing, 1.2 GHz, Pentium III processor, 40GB hard drive, 17" monitor, surge protector
Physical Dimensions	WIM controller cabinet: 30" X 24" X 8" (76 X 61 x 20 cm)
Environmental Rating	WIM controller cabinet: UL Type 3R
Operating Temperature	0 – 40C (32 – 104F), 10 to 95% relative humidity non-condensing
Operating Voltage	120V/240V AC 50/60Hz
Serial Ports	Com 1: RS-232, 20mA; Com2: RS-232, RS-422/485
Password Protection	Supervisor password to access configuration screens
Weighing Accuracy	ASTM 1318-02 Type III Compliant (excluding liquid and livestock loads) when installed per ASTM 1318-02 guidelines Gross Vehicle Weight +/-6% Axle-Group Load +/-10%
Vehicle Record Storage Capacity	Greater than 1,000,000 records
Weight Capacity Range	2,000 – 150,000 lb. Maximum of 50,000 lb per axle
Vehicle Speed Range	5 mph -75 mph
Used With Scale Platform	Part # TC202609-1 staggered WIM scale platform
Cabling	Inductive Loop



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