Bulk Material Weighing

Industrial Weighing and Measuring

20 News

Maximize Productivity

Get More out of Your Vehicle Scale

Hurry up and wait. That frustrating situation is all too familiar to drivers who use busy vehicle scales. To eliminate delays and improve productivity, businesses are turning to innovative new weighing solutions.

Traditional weighing operations require drivers to stop their vehicles and wait for a scale operator. We offer weighing solutions that maximize productivity by keeping vehicles moving and allowing drivers to process their own transactions.

Non-stop weighing

Weighing vehicles while they are in motion does more than reduce the time required to process each vehicle. The AxlePass weigh-in-motion (WIM) system can eliminate traffic backups and delays, enabling vehicles to make deliveries sooner.

Self-serve weighing

The busier a weighing operation is, the longer vehicles have to wait for a scale operator. With DataBridge™ Express mobile weighing, drivers process their own weighing transactions quickly and easily on a smart phone or other mobile device while remaining safely in their vehicles.

Learn more about how these and other high-efficiency weighing solutions can increase scale throughput. The following articles reveal innovative strategies for improving a facility's overall productivity.

METTLER TOLEDO

Keep Vehicles Moving
How to Reduce Processing Time

To maximize productivity, vehicles need to keep moving. A new weigh-in-motion (WIM) solution provides accurate weights as vehicles drive across the scale platform. By eliminating the need for vehicles to stop, it reduces costly delays and traffic congestion at busy sites.

	Static Scale	AxlePass WIM Scale
Comparison: Static vs AxlePass WIM Scale	 Full-length weighbridge for static weighing	 WIM platform for in-motion weighing
Weighing time	5 minutes or more per vehicle	Less than 1 minute per vehicle
Platform length	70 to 80 feet (21 to 24 meters)	2.5 feet (0.76 meters)
Initial cost	Full-length scale with concrete foundation	One WIM scale replaces five static scales
Maintenance	Maintain large platform with 8 to 10 load cells	Maintain small platform with four load cells
Versatility	Static weighing only	Dynamic or static weighing
Processing	Manual vehicle processing	Automated vehicle processing

Key Benefits
AxlePass WIM Scale

Speed and productivity
The AxlePass WIM scale captures axle, axle group, and gross weights of vehicles moving at speeds of up to 15 miles per hour (25 kilometers per hour). Because vehicles do not need to stop on a scale, this highly productive solution can weigh the same number of vehicles as five static scales.

5 times
the throughput of a static scale

High accuracy
The scale provides an efficient way for operations that handle large volumes of traffic to verify container weights or verify that vehicles comply with legal highway weight limits. At optimal vehicle speeds, it delivers in-motion weighing accuracy within 1.0 percent of the true weight.

Accuracy within
+/- 1%
of true weight

Reduced cost
With a much smaller footprint than a full-length static scale, the AxlePass WIM scale has a lower initial cost and lower ongoing maintenance costs. By eliminating unnecessary starting and stopping, it also reduces fuel consumption and wear and tear on vehicles.

Up to 30%
lower initial cost than static scales

Maximize Productivity
Learn how an AxlePass solution can increase productivity and reduce costs

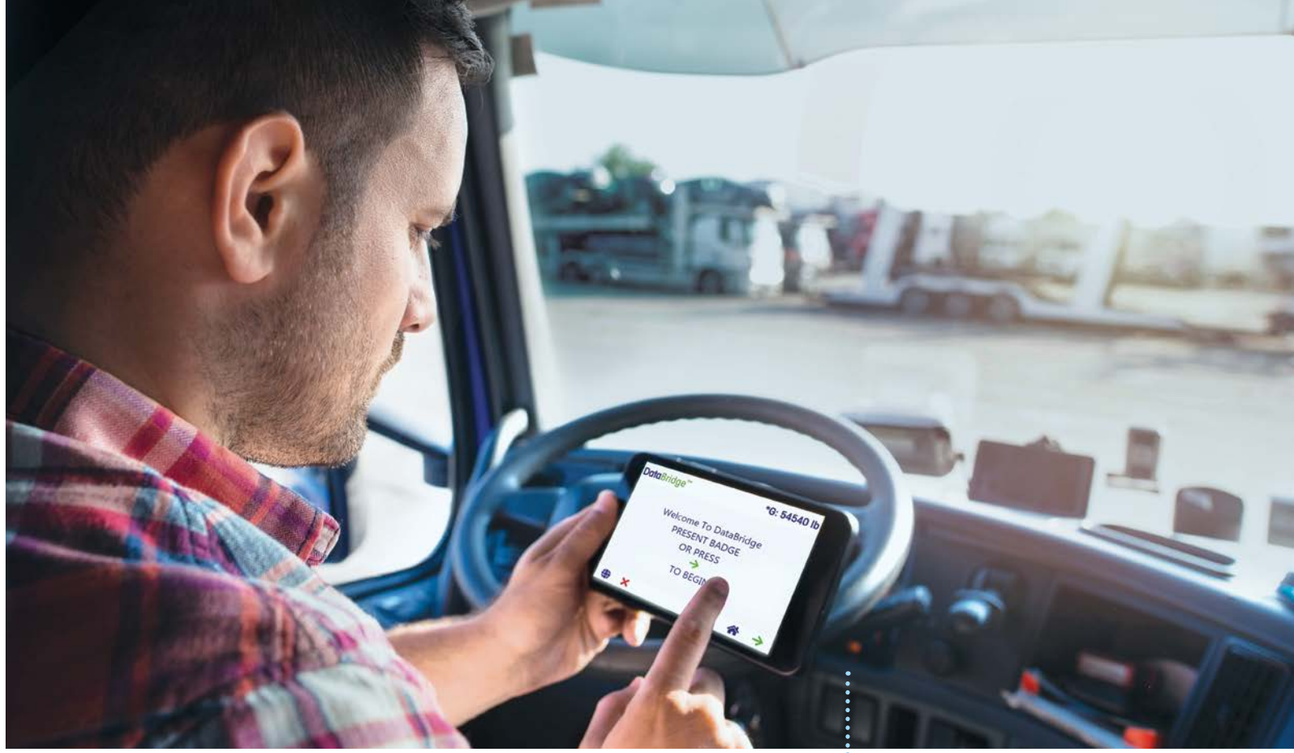
Download Now
www.mt.com/AxlePass-snl

Truck Weighing with Mobile Transactions

Increase Throughput up to 30%

Avoid delays and traffic jams at your truck scale. A new mobile app increases a weighing operation's productivity by enabling drivers to process transactions without leaving their vehicles. The entire weighing transaction is handled on a mobile device without the need for a scale operator.

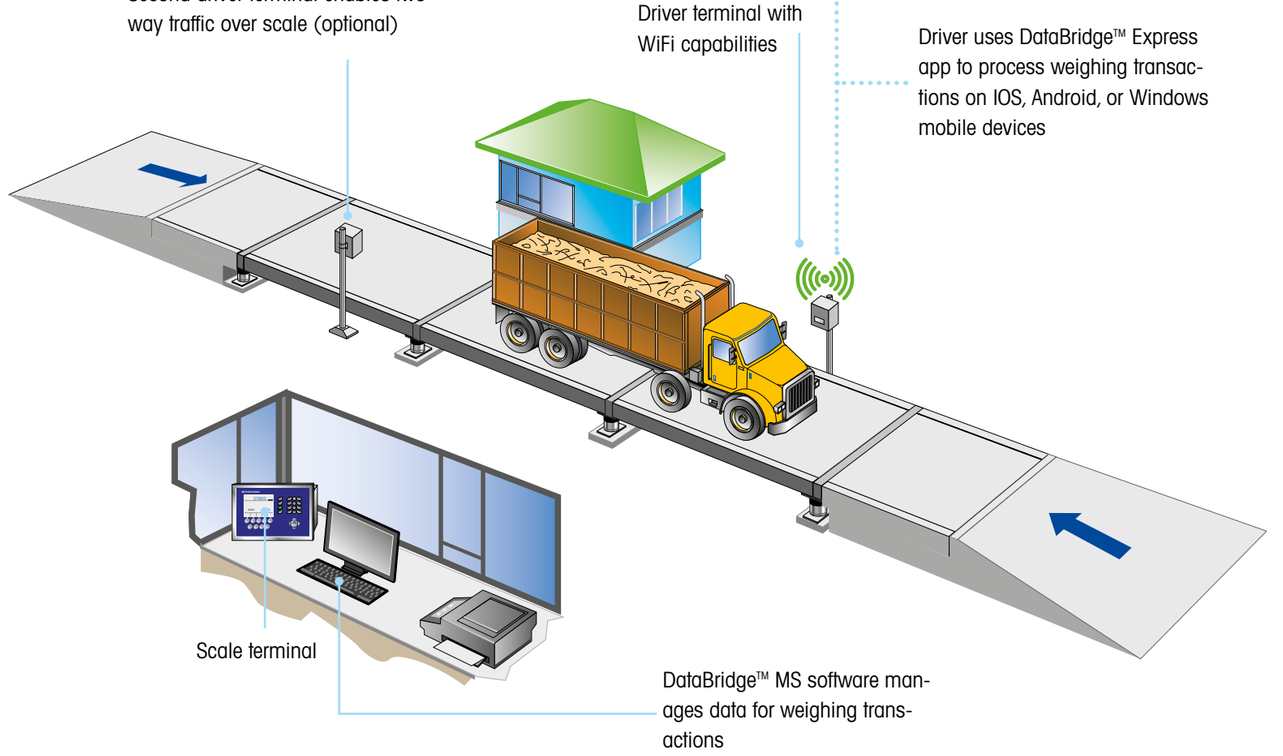
www.mt.com/DataBridge



Fast and easy weighing
With the DataBridge™ Express unattended weighing solution, truck drivers can process their own weighing transactions using an app on a smartphone or other mobile device. Drivers scan the mobile app's QR code and then follow the simple steps to complete a transaction.

Increased productivity
The DataBridge™ Express solution reduces transaction time, enabling busy weighing operations to increase truck throughput up to 30 percent. It provides high-efficiency weighing for operations with a fleet of trucks or regular drivers who can be equipped with the mobile app.

Reduced cost
A DataBridge™ Express terminal costs as much as 75 percent less to own and operate than a conventional unattended driver terminal. By using a mobile device to process transactions and receive tickets, this simple solution eliminates the need for keyboards and ticket printers.

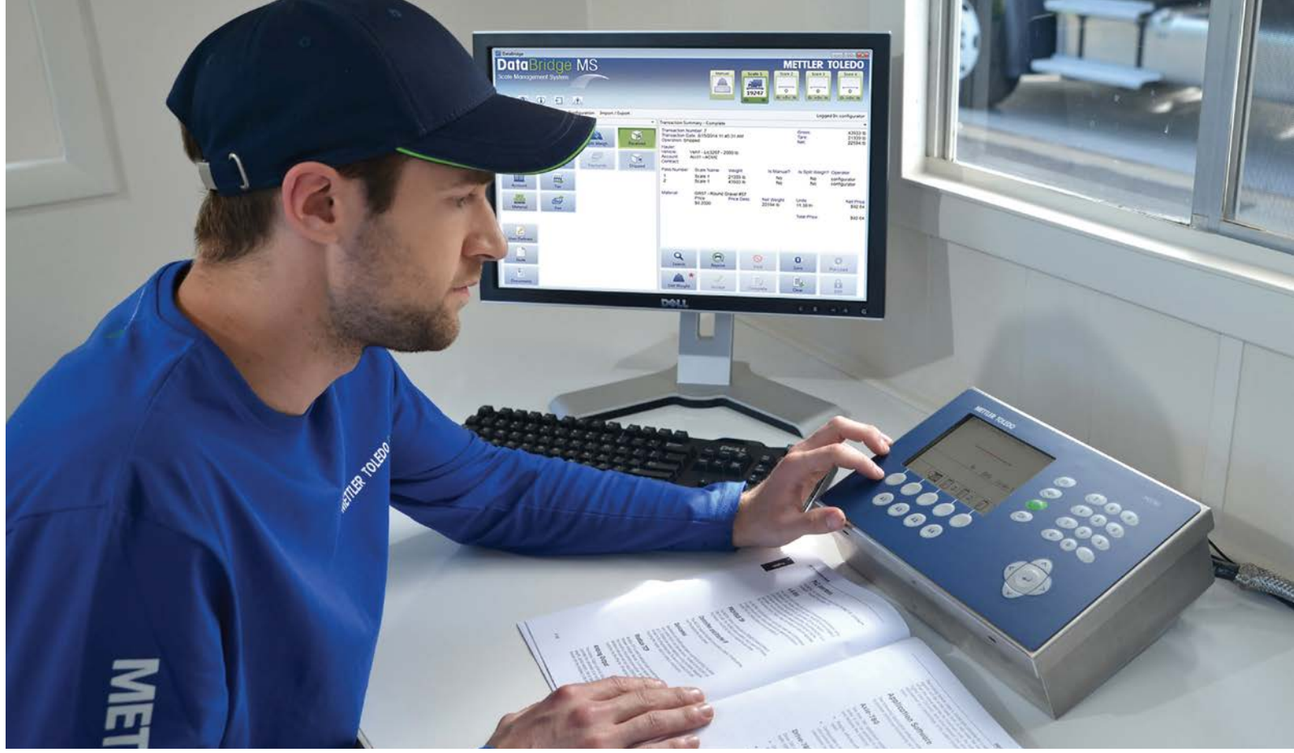


Gain Insight with Smart Sensors

Accuracy over the Long Haul

Whether measuring input or output, bulk-material processors demand accuracy. Weighing operations that cannot deliver accurate material weights keep businesses guessing about their actual yield. A high-performance vehicle scale is essential to track material and reduce losses.

▸ **www.mt.com/powercell**



Your Challenges

Manual adjustments

Analog Scales tend to lose accuracy over time. To maintain accuracy, they need frequent shift adjustments, a manual process that involves repeatedly adjusting the potentiometer for each load cell in a scale. Technicians often spend a full day just trying to get close to the target accuracy.

Environmental influences

Temperature changes and other environmental forces affect the weight signals transmitted by analog load cells. Weighing accuracy can vary widely from season to season. Even during the course of a single day, a scale can produce significantly different weight readings for the same load at dawn and at midday.

Passive devices

Analog load cells are passive devices that transmit an electrical signal to a weight display. They provide no information about how accurate the weight signal is. One defective load cell can cause a scale to give away thousands of dollars worth of goods every day, and it could be months before anyone notices the problem.

Our Solution

Automated calibration

POWERCELL® PDX® load cells automate the shift-adjustment procedure. By eliminating repeated manual adjustments, POWERCELL® technology makes the process faster and more accurate. Typically, these scales are calibrated to a higher degree of accuracy and maintain that accuracy over a longer period.

Digital compensation

POWERCELL® PDX® load cells use a built-in digital compensation system to adjust for temperature changes and other environmental factors that affect weight signals (creep, nonlinearity, and hysteresis). No matter what temperature it is outside, a POWERCELL® scale will deliver the same accurate weight.

Advanced diagnostics

Each POWERCELL® PDX® load cell has built-in diagnostic capabilities to monitor its performance 24 hours a day. If a load cell's performance data varies from the expected levels, the scale terminal will alert the scale operator. With POWERCELL® technology, potential problems can be fixed before they affect a scale's weighing accuracy.

Improve Weighing Productivity

Total Process Control at Your Fingertips

A scale should do more than weigh trucks. The right control system can expand a scale's capabilities to meet processing and business needs. Combining an accurate vehicle scale with advanced controls will make any weighing operation more productive and profitable.

Scale terminals

We offer a selection of high-performance terminals to control weighing operations and connect to other systems. Choose from various levels of data storage and access to the diagnostic capabilities of POWERCELL® load cells.

▸ **www.mt.com/veh-terminals**

Unattended terminals

Unattended terminals allow drivers to process their own weighing transactions without a scale operator on duty. They save time and money for scales in remote locations, scales that operate 24/7, and facilities with multiple scales.

▸ **www.mt.com/ind-IND9U-touch**

Scale management software

DataBridge™ software provides complete control of a weighing operation and data from multiple scales. Options range from control of basic inbound/outbound weighing to advanced systems with centralized data management for multiple sites.

▸ **www.mt.com/DataBridge**

Traffic control

We supply the equipment needed to control traffic over a vehicle scale: traffic lights, loops, barriers, and photo-eye sensors. Connecting to a scale terminal or software provides an integrated system with both automated and manual control of the equipment.

▸ **www.mt.com/vehicle**

Fraud prevention

Stop cheaters with the fraud-prevention features of DataBridge™ MS software. This secure system enables a business to detect attempts to tamper with weight signals, position vehicles improperly, carry extra weight, weigh loads twice, or alter data.

▸ **www.mt.com/veh-fraud-prevention**

How Does Your Truck Scale Measure Up?
Technology Comparison Reports

The weighing technology that you choose can have a big impact on your bottom line. To show you how much difference technology makes, we have compiled data from nearly 35,000 service records over the past four years.

> "This real life service data can serve as a good point of comparison to see how your equipment measures up."

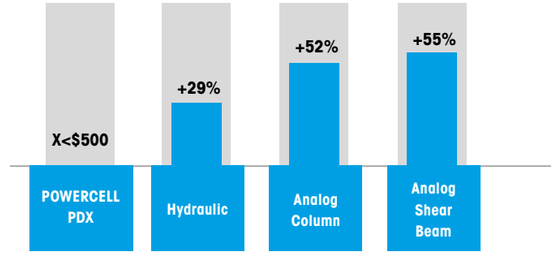
Service, Mettler Toledo

Technology Comparison
Download a detailed report on your specific industry to see the results for yourself.

Download Now
www.mt.com/veh-technology-report-snl

Average Annual Repair Spend

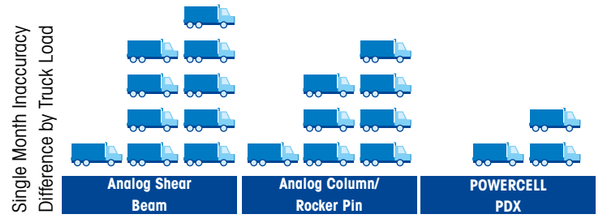
A truck scale is an investment that should last for 20+ years of heavy-duty use. However, selecting the wrong technology can lead to significant annual repair costs. Our service data shows that POWECELL® PDX® has the lowest total cost of ownership by keeping the repair spend low, and the reliability high.



*Service records showed that repair spend on a scale could range from $250 to $5,000 annually.

Business Impact of Inaccuracy

Are you giving away product with every truck load? Even the smallest amount of inaccuracy can add up over time. Choosing the right load cell technology can limit your exposure to product giveaway and/or poor inventory control. The below chart is based on actual accuracy data to show what truck scale owners just like you are giving away each month.

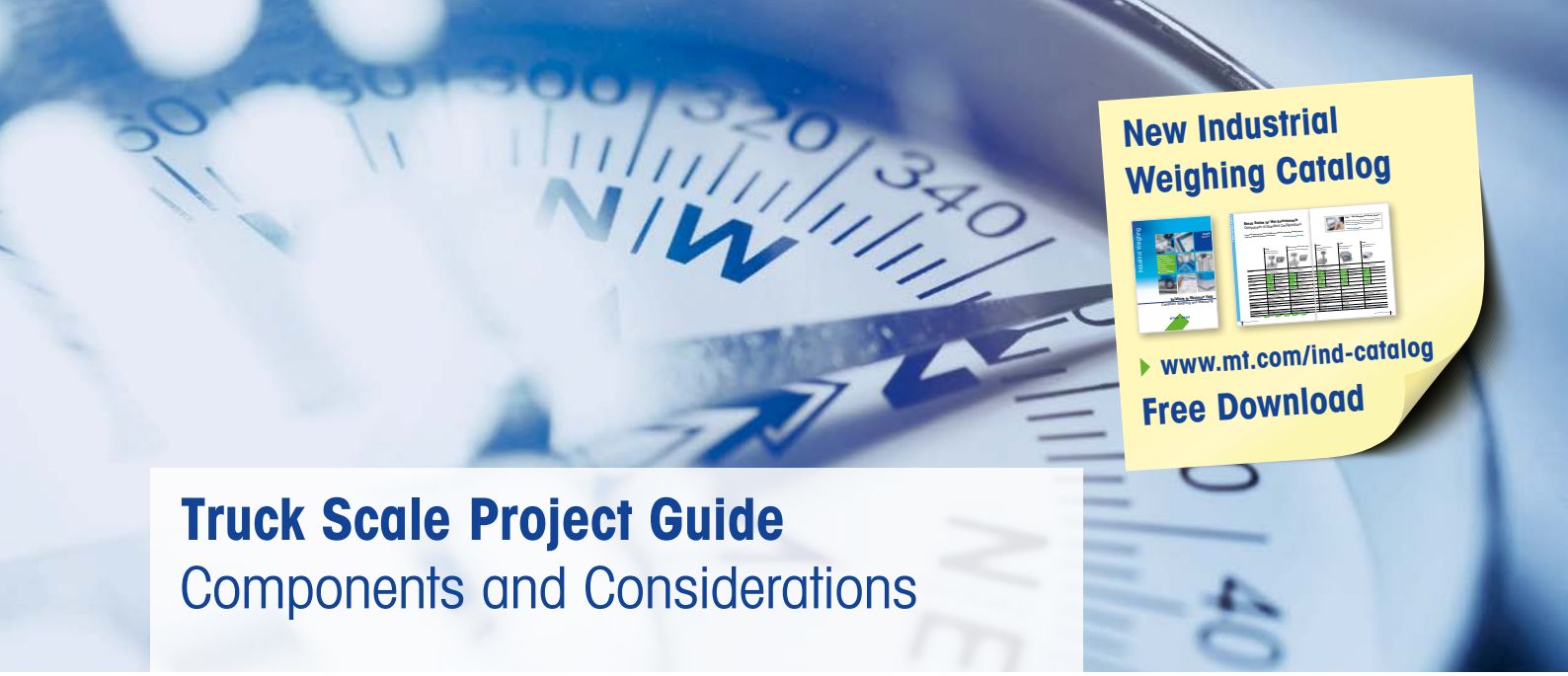


*Based on 100 trucks per day, 20 working days in 1 month

Industry Specific Accuracy

Annual Weights + Measures certification of a scale does not ensure long-term accuracy. From +35,000 service calibration tests, METTLER TOLEDO has statistically valid measurements of long-term scale performance across the major truck scale industries.

Industry	POWERCELL Sensors	Analog Load Cell		POWERCELL Sensors	Analog Load Cell	Industry
Aggregate Industry	9%	26%	% Found Outside Legal Tolerance	9%	21%	Waste Industry
	+/- 100 lb. (+/- 50 kg)	+/- 280 lb. (+/- 140 kg)	Accuracy Range (95% of Scales)	+/- 118 lb. (+/- 59 kg)	+/- 288 lb. (+/- 144 kg)	
Chemical Industry	10%	27%	% Found Outside Legal Tolerance	8%	24%	Bulk Food Industry
	+/- 94 lb. (+/- 47 kg)	+/- 292 lb. (+/- 146 kg)	Accuracy Range (95% of Scales)	+/- 98 lb. (+/- 49 kg)	+/- 300 lb. (+/- 150 kg)	



New Industrial Weighing Catalog

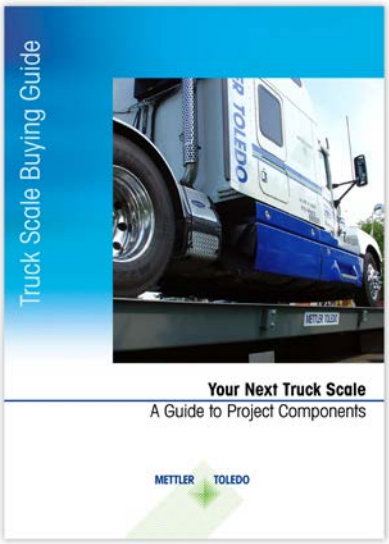
www.mt.com/ind-catalog

Free Download

Truck Scale Project Guide

Components and Considerations

Will your year-end purchases include a truck scale? Our comprehensive guide helps navigate the process of selecting and buying a truck scale that will deliver the best return on your investment.



What's inside?

Valuable information about every aspect of buying and owning a truck scale:

- Selecting a scale
- Types of load cells
- Planning the scale site
- Installation and certification
- Maintenance and service
- Total cost of ownership

Download the free buying guide:

www.mt.com/truckscaleguide

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