

# Floor Scales



**VERTEX®**

Industrial Floor Scales

Heavy-Duty Design

**Exceptional Accuracy and Durability**  
for Tough Industrial Environments

**METTLER TOLEDO**

# Heavy-Duty Scales that Meet the Needs of Industrial Applications

- **Wide range of standard sizes and capacities**
- **Built for extreme duty in harsh environments**
- **Scale engine provides precise, repeatable performance**

VERTEX floor scales combine exceptional accuracy with the durability to stand up to tough industrial environments. All scale components are made to last, with critical tolerances built in at the factory. Because components do not become loose or out of specification, VERTEX scales maintain their weighing accuracy and repeatability even after years of heavy use.

These floor scales are ideal for concentrated-loading applications such as bins, carts, and forklifts. They are designed to withstand the conditions common to shipping hubs, chemical processing, pharmaceutical processing, food processing, and other industrial environments. Our family of VERTEX floor scales includes a variety of sizes, capacities, materials, and accessories that can be combined to meet your specific needs. Two models are available for interfacing with different types of terminals:

Model 2158 floor scales are used with analog terminals. They provide fully electronic weighing

and interface with the complete line of METTLER TOLEDO analog instruments.

Model 2162 floor scales feature an enhanced junction box for connecting to the latest generation of METTLER TOLEDO ID terminals. These terminals can give your scale greater capabilities for applications such as multi-range weighing, checkweighing, totalizing, counting, and formulation.

## Heavy Duty

VERTEX floor scales are designed with tough industrial environments in mind. They can handle 100% end loading, making them ideal for use with concentrated-loading applications. Each load cell has a mechanical overload stop that protects against damage from accidental overloads. The scales are also built to withstand side impacts. A heavy-duty frame protects the load cells from the damage that side impacts can cause.

## Versatile

The scales are versatile enough to be installed on top of the floor, in

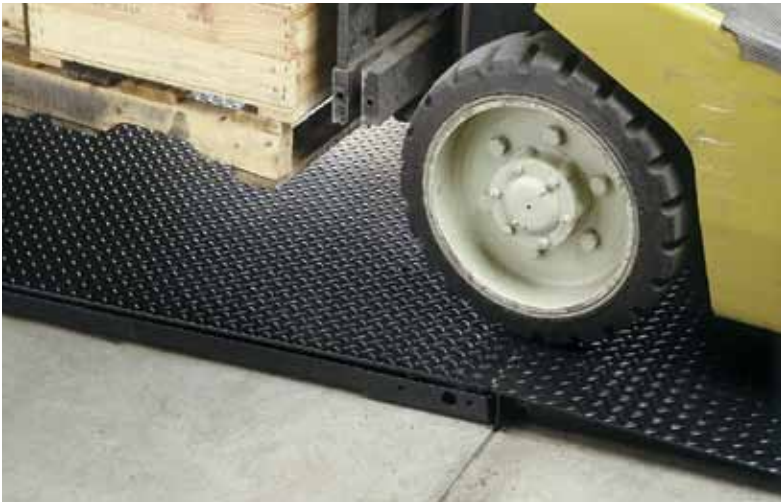
a pit, or used as a portable scale. Top-of-floor installations can be equipped with ramps to make them easily accessible from all four sides. Pit installations use our Quick-Pit frames, which ensure a perfectly square installation that is flush with the floor. The scales can be made easily portable by equipping them with forklift channels for easy lifting or with a wheel kit.

## Harsh Environments

We use high-quality materials and finishes that protect your scale in harsh environments. There are two options for the scale frame and platform:

- Carbon steel painted with a durable, two-part epoxy finish.
- Stainless steel for extra protection in washdown and corrosive environments.

Load cells are made of stainless steel and hermetically sealed. IP69K junction boxes are made of stainless steel to protect the electronic components inside them.



The scales are designed for 100% end loading to handle forklift traffic.

### **Safe**

Our standard tread-plate surface offers safe footing for workers. Plus, the scale's low profile means that less effort is required to manually place a load on the scale.

### **Hazardous Areas**

Our load cells are approved for use in hazardous areas in most markets. VERTEX load cells carry Factory Mutual, European Ex, and Canadian CSA Ex approvals when used with a METTLER TOLEDO intrinsically safe terminal.

### **FastFab™ Custom Scales**

In addition to standard VERTEX scales, we offer custom sizes and capacities. Our FastFab team works together to engineer and manufacture a custom scale that meets your specific requirements. With our design technology and world class manufacturing capabilities, we can deliver the highest-quality custom scales to you in the shortest time possible.

### **High Accuracy**

VERTEX scales are NTEP certified for 5,000-division accuracy. For applications that require a higher level of performance, we offer versions of these scales with 10,000-division accuracy. We can provide a factory test loading report verifying 5,000-division accuracy or 10,000-division accuracy (not legal for trade).



VERTEX scales provide the dependable repeatability needed for batching and filling.



VERTEX scales are ideal for high-precision, heavy-capacity counting applications.



Choose from 304 or 316 stainless steel for sanitary applications.

## VERTEX Accessories

### A. Quick-Pit Frame

With our Quick-Pit frame, installing a VERTEX floor scale in a pit is an easy, trouble-free process. Just level the frame in the pit and pour concrete to create a form. After the concrete has cured, install the scale and anchor it. The result is a pit scale that is square and flush with the floor.

### B. Forklift Channel Frame

This frame makes it easy to move the scale with a forklift. Simply slide the forks into the channels and lift. The heavy-duty frame protects the scale from damage. Available for 3' x 3' to 5' x 5' scales (1,000-lb to 20,000-lb capacities).

### C. Scale Guards

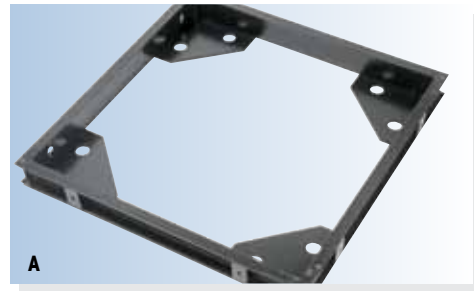
Protect your scale from side-impact damage with scale guards. When a forklift hits the side of a scale, the impact can bend the scale's frame or damage its load cells. The angled guard prevents damage by deflecting the impact upward. Scale guards can be used on any or all sides of a floor scale.

### D. Ramps

Ramps allow easy access from any side of a scale, eliminating the need to lift heavy loads onto the platform. Standard ramps are 36" long. Low-angle ramps (60" long) are available to make wheeling loads onto the scale safer and easier.

### E. Instrument Columns

Bolt-on and free-standing instrument columns are available in carbon steel and stainless steel. Standard height is 39 inches. Brackets can be supplied for mounting each type of indicator to the column.

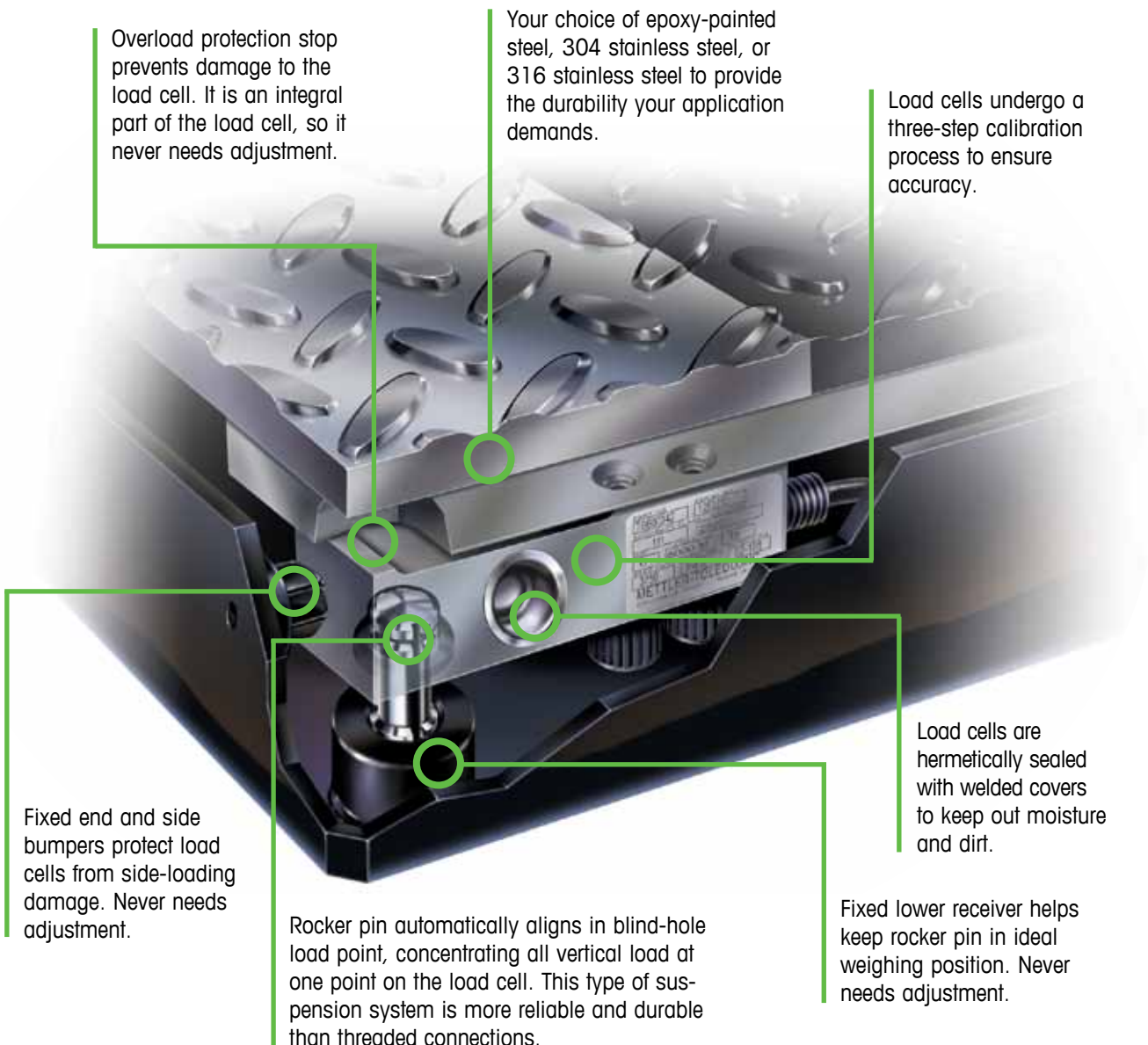


# Technology Does Make a Difference

Your scale needs to do more than give an accurate weight reading when it's brand new. It needs to give accurate readings time after time, even when used for demanding applications in industrial environments. How do we ensure this high level of performance? METTLER TOLEDO believes that technology is the key. We combine innovative designs with the manufacturing capabilities to turn those designs into precision products. We start with four goals in mind:

- The load cells must provide accurate, repeatable performance
- The design must protect the load cells from damage
- The suspension system must ensure vertical loading
- The scale must be designed for durability

At the heart of each scale is our VERTEX® Scale Engine. It consists of the load cells and the suspension system that transmits weight from the platform to the load cells. We design scale components to perform reliably, without the need for adjustment. And we test our products extensively to ensure that you get a scale you can count on. Take a look at what makes our scales different:



Overload protection stop prevents damage to the load cell. It is an integral part of the load cell, so it never needs adjustment.

Your choice of epoxy-painted steel, 304 stainless steel, or 316 stainless steel to provide the durability your application demands.

Load cells undergo a three-step calibration process to ensure accuracy.

Fixed end and side bumpers protect load cells from side-loading damage. Never needs adjustment.

Rocker pin automatically aligns in blind-hole load point, concentrating all vertical load at one point on the load cell. This type of suspension system is more reliable and durable than threaded connections.

Load cells are hermetically sealed with welded covers to keep out moisture and dirt.

Fixed lower receiver helps keep rocker pin in ideal weighing position. Never needs adjustment.

## Specifications

Standard Platform Size	3x3 to 5x7 ft (914x914 to 1524x2134 mm)
Available Capacities	500 to 20,000 lb (300 to 12,000 kg)
Platform Height	3 to 4 in (76 to 102 mm)
Standard Construction	Two-part, epoxy-painted carbon steel, 304 or 316 stainless steel, ALGRIP™ 304 stainless steel
Load Cell Type	Four 350-ohm load cells; hermetically sealed stainless steel
Load Cell Suspension	Stainless steel rocker-pin assembly
Junction Box	Top access, stainless steel IP69K
End Loading	100% end loading
Standard Operating Temp.	14°F to 104°F (-10°C to 40°C)
Metrological Approvals	NTEP, Measurement Canada, OIML
Hazardous Area Approvals	FM, CSA, Ex, ATEX
Shipping Weight	275 to 1200 lb (125 to 545 kg)
Compatible METTLER TOLEDO Instruments	Most METTLER TOLEDO terminals

## Options

- Ramps: standard or low angle
- Accessory mounting plates
- Quick-Pit frames
- Wheel kits
- Optional load cell cable length
- Custom sizes
- Columns: free-standing or bolt-on
- Scale side guards
- Forklift portability frame
- Remote junction box mounting
- NTEP/OIML load cells standard
- Safety tread or smooth deck plate
- Stainless steel pit liners
- High-accuracy validation
- Deck finish: electropolish or mechanical polish Ra 35



IP69K junction box  
for extra protection.

[www.mt.com/floorscale](http://www.mt.com/floorscale)

For more information

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