

Avery Weigh-Tronix



**BridgeMont Steel Deck  
Motor Truck Scale**

# BridgeMont Steel Deck— Performance and Affordability



For more than two decades Weigh-Tronix has built premium truck scales that have become the performance benchmark for ruggedness and performance in heavy use applications. Now Weigh-Tronix has introduced a new class of truck scale, the BridgeMont. It is a scale for the majority of users, the people who require a scale they can count on, day in and day out.

## BridgeMont designers asked new questions: How do you reduce the cost of truck scale ownership?

As they began the development of the new BridgeMont truck scale, Weigh-Tronix designers recognized that their strength was building truck scales with long service life. Now they needed to ask, "How do we build the same quality into a scale for general use? How do we provide the product that gives long years of service without over building? What design choices do we make that will reduce the cost of truck scale ownership?"

## Bridgemont preserves the best elements of proven Weigh-Tronix design

BridgeMont installs anywhere. Depending on your state regulations, space requirements and environmental conditions, you can use it as a pit type scale, place it on a concrete slab, or simply set it on concrete piers.

The heart of the BridgeMont Steel Truck Scale is the Weigh Bar® weight sensor. Weigh-Tronix machines Weigh Bars from high quality aircraft alloy steel bar stock. Each Weigh Bar goes through a three-step process of heat treating, quenching and then tempering. The process has two benefits. First, it increases the weight sensor's resistance to corrosion, and secondly, it enhances the performance of the Weigh Bar, ensuring its high

degree of repeatability by minimizing hysteresis. The Weigh Bar has proven to be the most dependable and long lasting electronic weight sensor in the industry.

## Structural integrity, the biggest variable in cost of ownership

Weigh-Tronix designers employed a technology called Finite Element Analysis (FEA) to the design of the BridgeMont to substantially reduce the cost of the standard truck scale without sacrificing structural integrity.

The FEA technology permitted Weigh-Tronix engineers to create computer generated models of each proposed design. They measured critical stress factors on virtually every component of the scale.

As a result, they developed a new configuration for their proven sandwich steel deck that reduced the weight of the deck but maintained the strength.

Their test also reaffirmed the choice of sandwich steel construction. When they tested several designs that eliminate the bottom plate, they found that the bottom plate serves as a critical load stabilizer. Designs tested without bottom plates were subject to high fatigue stresses and premature failure when improperly loaded.

The second value the bottom plate adds to the BridgeMont is that it allows for a 100% seal weld of the deck structure. This lengthens the life of the scale, protecting it from exposure to moisture and early corrosion.

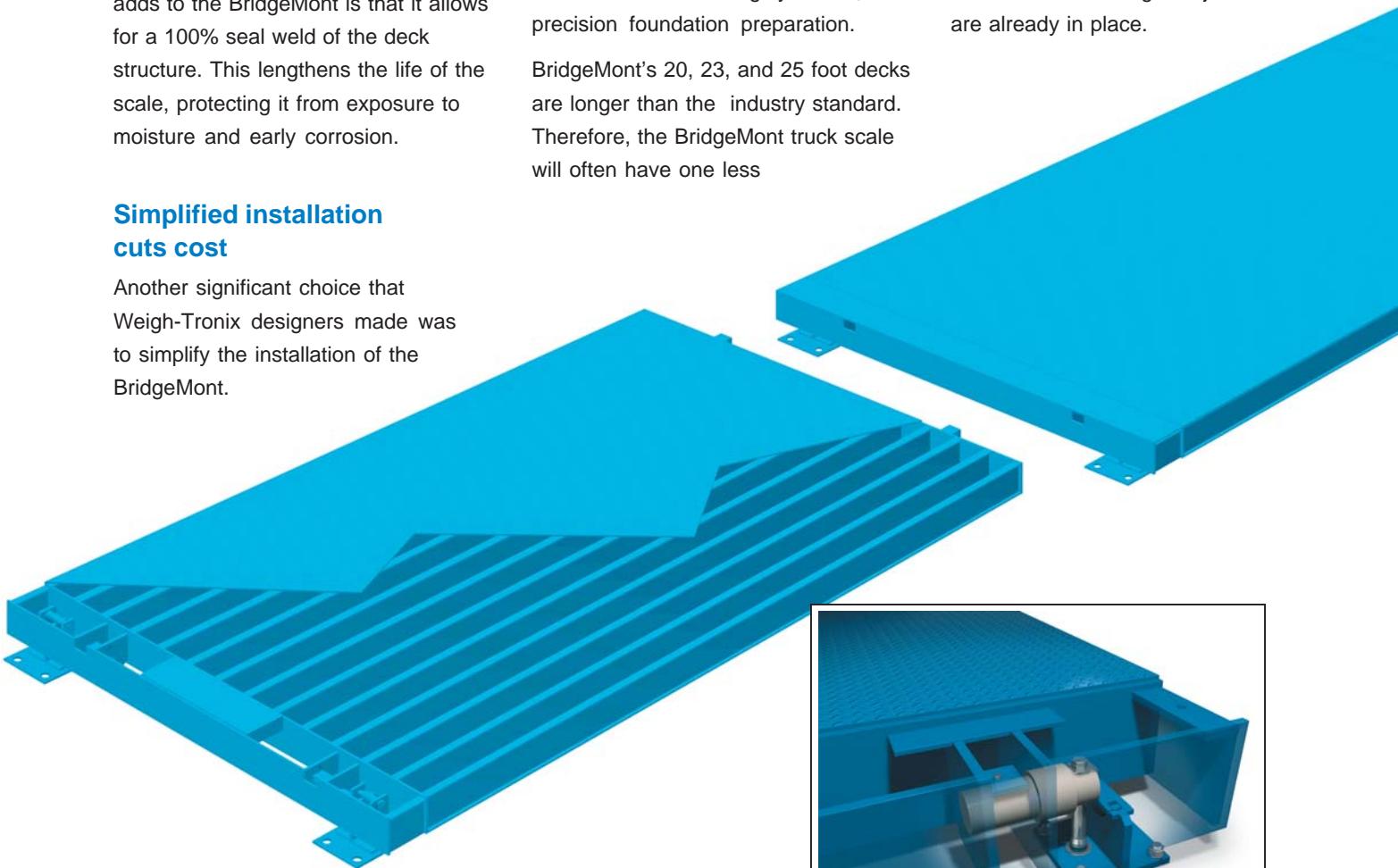
The traditional truck scale installation uses grout plates as bases for the stands that hold the load cells. Grout plates require precise positioning and must be perfectly level to ensure that all load cells are level. Anchor bolts, positioned in the foundation to tight tolerances, secure each grout plate.

In contrast, the BridgeMont positions its Weigh Bars in the deck sections instead of on stands which need to be perfectly level. It has no need for grout plates. Installers simply drill and insert anchor bolts at the time of installation. This saves hours of highly skilled, precision foundation preparation.

BridgeMont's 20, 23, and 25 foot decks are longer than the industry standard. Therefore, the BridgeMont truck scale will often have one less

deck section than a competitive scale of the same length. This results in a three-time savings. One less deck section saves the cost of load cells, cable and junction boxes. One less deck section speeds the installation process and simplifies calibration. One less deck eliminates one pier, lowering the cost of the foundation.

In addition, each deck section arrives with Weigh Bars already mounted in the deck. The cables are hard wired to the Weigh Bars (No connectors to corrode or fail from dampness). Protective conduit for the wiring and junction boxes are already in place.



### **Simplified installation cuts cost**

Another significant choice that Weigh-Tronix designers made was to simplify the installation of the BridgeMont.

### **BridgeMont Truck Scales— Another example of a better way from Weigh-Tronix**

BridgeMont Truck Scales capitalize on the strengths of a Weigh-Tronix twenty-five year tradition of building premium truck scales. In addition, they offer the unbeatable combination of structural integrity and cost effectiveness. Count on Weigh-Tronix to find the better way.

*The BridgeMont design places the Weigh Bar weight sensors in the scale's deck. This provides stability and level positioning for the weight sensors without the need for difficult to install load cell stands and grout plates.*

## Options and accessories

Guide rails	Hazardous area systems
Guard posts	Multi-platform systems for axle weighing
Manhole rings and covers	Grain dump modules
Indicators	Galvanized finish
Remote displays	PDOX Waste Management System
Printers	PDOX Special Applications Management Systems
Pre-fab foundations	Truck Weigh™ software
	Traxle™- total truck weight and axle weights
	Link Suspension

## Specifications

Model#	Size	Modules	Weigh Bars	Capacity (tons) Gross	
BMS-HD 1010	10' x 10'	1	4	40	
BMS-HD 1210	12' x 10'	1	4	40	<b>Dual tandem axle rating:</b> 80,000 lb
BMS-HD 2010	20' 8" x 10'	1	4	40	<b>"r" factor rating:</b> 2.35
BMS-HD 2410	24' x 10'	1	4	40	<b>Concentrated load capacity (CLC):</b> 40 ton
BMS-HD 3010	29' 7" x 10'	2	6	80	<b>Surge voltage protection:</b> Standard equipment
BMS-HD 3510	34' 11" x 10'	2	6	80	<b>Junction boxes:</b> NEMA 4 stainless steel
BMS-HD 4010	40' 3" x 10'	2	6	80	<b>Operating environment:</b> Outdoor weather proof
BMS-HD 4710	46' 11" x 10'	2	6	80	Temperature: -30° to 130°F
BMS-HD 6010	59' 11" x 10'	3	8	100	<b>Approvals:</b> NTEP, Cert. of Conf. #97-074
BMS-HD 7010	69' 11" x 10'	3	8	100	Approved up to 13' width
BMS-HD 8010	79' 6" x 10'	4	10	100	Approved for livestock weighing
BMS-HD 9310	92' 10" x 10'	4	10	100	
BMS-HD 10010	99' 1" x 10'	5	12	100	
BMS-HD 11610	115' 9" x 10'	5	12	100	<b>Warranty:</b> 5 years - Weigh Bars 10 years - Weighbridge
BMS-HD 1011	10' x 11'	1	4	40	
BMS-HD 1211	12' x 11'	1	4	40	
BMS-HD 2011	20' 8" x 11'	1	4	40	
BMS-HD 2411	24' x 11'	1	4	40	
BMS-HD 3011	29' 7" x 11'	2	6	80	
BMS-HD 3511	34' 11" x 11'	2	6	80	
BMS-HD 4011	40' 3" x 11'	2	6	80	
BMS-HD 4711	46' 11" x 11'	2	6	80	
BMS-HD 6011	59' 11" x 11'	3	8	100	
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Also available in 12- and 13-foot platform widths

**Avery Weigh-Tronix**

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