



Rugged, Efficient Weighing in the Recycling Industry

When Polk County Recycling Center in St. Croix Falls, Wisconsin, decided to install a truck scale to weigh recyclable materials, they determined that the scale would be shared with the Polk County Highway Department. The Highway Department needed this scale to monitor the inventory and usage of road materials, stored in a salt shed at the Recycling Center site. However, the Highway Department needed its information to travel to their office's computer database, located 15 miles away.

The truck scale at the Recycling Center needed the ability to gather and process a multitude of information for both the Highway Department and the Recycling Center. To deliver a practical solution, the two services teamed up with Weigh-Rite Scale Co., Inc. of Somerset, Wis.

"The Recycling Center weighs trucks carrying their recyclable materials, and they needed a way to do this accurately and efficiently," said Steve Pitschneider, sales engineer at Weigh-Rite Scale. "The Highway Department had several other categories of information to gather pertaining to their materials stored on site. They had to keep track of inventory, the amount of materials distributed, and on which road segments the materials were used. They are more than happy with the solution that we provided."

This solution included the help of a rugged BridgeMont Concrete Deck Motor Truck Scale and an AVS-5 unattended scale console featuring a Model 1310 Indicator/Controller, both by Avery Weigh-Tronix. The system was placed in service at the Polk County Recycling in late 2005.

The BridgeMont truck scale is extremely durable and designed to provide a long service life. It features a fiber mesh concrete deck that is fully supported by a steel sub-structure so the concrete is always in compression and very resistant to cracking. It employs the widely respected Avery Weigh-Tronix Weigh Bar weight sensor technology, which offers outstanding performance and a very low failure rate for a high degree of dependability. In addition, Avery Weigh-Tronix offers an industry-leading 5-year Weigh Bar and junction box warranty, including lightning protection.

The Polk County Highway Department selected a scale featuring a 70'x12' concrete deck with high-strength, welded-on guide rails, allowing for the weighing of large trucks and plows.



TECHNICAL

- BridgeMont Concrete Deck is a 5-inch concrete deck supported by a steel substructure and bottom deck plate.
- The substructure supports the concrete of the traffic area of the scale. When the scale is in use, the steel assumes all tension loading. The concrete assumes only compression load as it is meant to do.
- The 1310 programmable indicator is compatible with most standard and custom-configured weighing platforms, including truck, track, rail, bench and floor scales.
- The signal conversion rate and internal resolution of the 1310 ensures fast, precise, repeatable measurements for both static and in-motion weighing.
- The 1310's standard memory provides storage space for custom start-up and shutdown sequences, tare values, multiple recipes for batching applications, print formats and data logging.
- Four standard bidirectional serial ports provide connectivity to many serial devices, including printers, bar code scanners, label printers and remote displays. In addition, ModBus ASCII is also available.



The scale was installed on an above ground pier-type foundation, which is low to the ground for easy, safe vehicle access - despite snowy, icy conditions in Wisconsin winters.

"We needed something that could weigh long and wide trucks, as well as trucks with plows attached, and this met our needs," said Kathy Bohn, supervisor of highway administration in Polk County. "Plus, truck drivers don't have to worry about driving up the scale, even when the ground is slippery."

Meanwhile the unattended scale console Model 1310 facilitates accurate weighing at the push of a button. The unattended console with a Model 1310 offers a convenient solution by allowing truck drivers to remain in their vehicles while entering necessary information into the console. This innovation saves time—and therefore money—for drivers, and it also solves several safety concerns. In addition, the Model 1310 saves the Recycling Center the extra cost of keeping an attendant on-hand to operate the scale.

The Model 1310 is configurable to meet industry-specific standards and protocols, allowing for easy storage and transmission of data. To solve this application, the Model 1310 collects information for both Polk County institutions through a configuration that integrates with the department's specific network requirements, with two independent programs to track this information.

"The best feature of the Model 1310 is that if we have computer or RF problems, it can store the transactions in the system until they are working," Bohn said. "And it can store quite a large number of transactions."

Pitschneider said reliability is key to the popularity of these models—and Bohn and her co-workers aren't the only ones to reap the benefits.

"Providing cost saving solutions for my customers is a high priority of mine and using my 25 years of experience I can recommend the best solution for their needs," Pitschneider said. "We have installed approximately 50 scales in the last 10 years and 10 of these 50 have unattended consoles because they really save time, and time is money."

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