



Virginia DMV weighs millions of vehicles in two years' time

Weighing trucks on heavily trafficked routes requires more than an accurate scale, as the Virginia Department of Motor Vehicles (DMV) has found. Since 1999, the DMV has seen scale traffic nearly double in comparison to prior years. While some truck scales have proven reliable when weighing the millions of trucks passing through the state's main thoroughfares, to keep up with the increased demands, many required time-consuming maintenance.

"Our scales run 24 hours a day, seven days a week – and along with resisting environmental elements, these scales have to weigh a large volume of very heavy vehicles consistently," said Jeff Spencer, senior electronics supervisor at the Virginia DMV. "Due to our increasing traffic and higher vehicle weights, we were rebuilding our mechanical scales every six to eight months. With the time it took me to replace all the scale components that frequently wore out, within a year I could end up virtually living at a single weigh station for about two months."

To develop a better solution, the Virginia DMV revisited a scale company who'd provided them with some of their most reliable, long-lasting scales to date.

"In 1992, a contractor purchased two scales made by Avery Weigh-Tronix, and they turned out to be very well-made," Spencer said. "After weighing approximately 500,000 vehicles a year over almost 16 years of operation, the scale's Weigh Bars showed the normal signs of wear in the link support area – but it still worked accurately. The only time we had to stop using the scale was when I accidentally cut a wire during a maintenance visit."

With the assistance of Dan Kelliher at Security Scale in central Virginia, the DMV purchased several replacement truck scales from Avery Weigh-Tronix for four of the DMV's busiest sites. The stations are comprised of two scales on opposite sides of the road with three platforms apiece, and since the installations took place about two years ago, each site has logged over a million trucks weighed.

"The new Avery Weigh-Tronix truck scales were installed at the Bland weigh station on Interstate 77 in April of 2005, and as of about two and a half years later, it has weighed more than 1.3 million vehicles," Kelliher said. "The New Church site on the eastern shore of Virginia has logged over 1.1 million in the same amount of time."

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TECHNICAL

Avery Weigh-Tronix Truck Scale

- Offers high capacity and rugged construction for heavy use applications
- Delivers high performance and excellent repeatability
- Provides reliable operation with less maintenance required
- Withstands harsh environmental elements



The busiest site is the Dumfries station on Interstate 95, and it is at this weigh-in-motion scale that the Avery equipment has perhaps best demonstrated its reliability throughout its constant use.

“Our Dumfries site is located on the major north/south route, and every truck that passes must be weighed,” Kelliher said. “This site rocks and rolls, so the truck scales have weighed over 1.2 million vehicles since April 2006 – only a year and a half later.”

The scales have also demonstrated their extreme durability – especially at the DMV’s fourth site. The Suffolk station scales are used to weigh ocean cargo containers before they are unloaded at the break bulk facility.

“Ocean containers are allowed to be overweight when they come off the ship, so our Suffolk scales take the worst beating weigh-wise,” Kelliher said. “In two and a half years, the Avery truck scales have withstood both the elements and the heavier loads to weigh more than 1.8 million vehicles”

The high capacity, reliable operation and robust construction of the newest truck scales have made them an invaluable tool for the Virginia DMV.

“These scales have demonstrated great performance and require less maintenance than our prior systems,” Jeff Spencer said. “Now that we’ve increased our scale capacity and are able to keep pace with heavier vehicles at a higher volume, we’ve been able to save time and money on parts and labor. What used to take two months of rebuilding and replacements on our old scales now takes one day to service.”

In addition, each scale installation was custom designed to fit the existing pits at the weigh stations, further increasing the scales’ functionality and usability. This combination of convenience and durability has solved the DMV’s weigh station applications so successfully that, as more funds become available, they plan to continue purchasing Avery Weigh-Tronix truck scales as replacements at additional sites. And according to Dan Kelliher, these installations won’t need to be replaced anytime in the near future.

“When the initial electronic scales were made, we first assumed they’d weigh a total of a million trucks during their operational life,” Kelliher said. “As these Avery Weigh-Tronix products demonstrate, the latest manufacturing has ensured that today’s scales will be here for many years – probably weighing that same million on an annual basis.”