

Solution Series

Weighline™ Rail Scales

In-Motion Rail Scales Verify Weights of Incoming and Outgoing Cars at General Mills Plant

Problem: *Train cars arriving with less than a full load or leaving not completely empty.*

Solution: *The Weighline Rail Scales confirm the weights of incoming and outgoing cars.*

Maintaining Material Balance

“Now we know exactly how much we have in our bins,” said Blayne Whetten, Control Systems Engineer for the General Mills cereal plant in Albuquerque, New Mexico. “The main purpose of the rail scales is to maintain material balance in the plant so we can do planning and scheduling based on exactly how much material is in our bins.”

Train cars loaded with such materials as oat flour, sugar, corn flour, wheat and wheat flour are brought in on two sets of tracks at the plant. Some of the cars can't be inspected and in some cases the material can stick inside the cars (high humidity situations) making it difficult to remove the entire load.

The plant needed a system to verify weights of incoming and outgoing train cars, so they purchased an Avery Weigh-Tronix Rail Scale system in January from Shearman-Pease Scale & Equipment Inc., El Paso, Texas.

A Weighline two-draft, in-motion scale was installed on each of the tracks.



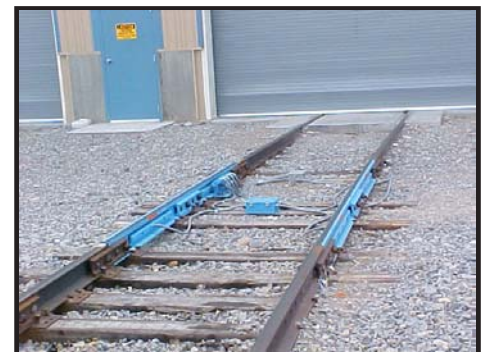
Easy Installation

The Weighline Rail Scales were installed by simply replacing sections of existing rail and ties. Specially machined and instrumented 115-lb/yd rail provide a series of short weighbridges that are used in combination to weigh rail cars. Each of the four Weighline rail sections measures 5' 10" and has a capacity of 40,000 lbs. The General Mills plant system utilizes a Model 1310 Indicator with special in-motion software for each scale that displays weights of train cars moving at 1 mph.

Prior to installing the Weighline Rail Scales, Whetten was concerned about whether they were getting all of the product out of the

train cars and whether the cars were coming in with the stated amount of product. “Now, we're weighing the cars when they come in and comparing the Weighline weights with the weigh bill. If the weights are within 2% of the weigh bill, then we assume the car has what the weigh bill says,” he explained. “Then we empty the car, send it out and weigh it again. If the weight is within 2% of the tare weight, that tells us we got the amount of product in we were expecting.”

If there is a significant discrepancy in weights, then Whetten can go back to the vendor to request a credit. Shortly after installing the system, Whetten discovered that an oat flour car that was emptied and sent out still had quite a bit of oat flour in the car. He contacted the vendor and received a credit. “We haven't found many cars that



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were off, however,” said Whetten. “The Weighline system has confirmed that we’re generally getting accurate weights. This means that for accounting purposes we’ll be able to control batches; we won’t end up with extra grain and we won’t run out of product half-way through a production run.” This should result in savings because the plant won’t have to shut down prematurely because of product shortages, he added.

That’s good news for the fans of Cocoa Puffs, Trix, Oatmeal Raisin Crisp, Wheaties and French Toast Crunch who’ll continue to find plenty of their favorite General Mills cereal on their grocers’ shelves.



Avery Weigh-Tronix

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