

Heavy-Duty Drilling Industry Weighing Solutions

The oil industry is directly related to the drilling industry. As the need for oil continues to grow, efficient drilling practices become more vital. M-I SWACO, a Houston-based company, distributes two materials important for this industry: Barite, a cement-like casting materials keeps soft, sandy earth from caving in during the drilling process; and a gel material, mixed to customer specifications, allows a bit to drill more efficiently. Several challenges exist, however, when weighing these materials to meet customer requirements.

Stored in tanks weighing upwards of one million pounds each, Barite is transported from a chemical vendor via an ocean-faring barge. In an effort to reduce time that was previously spent refilling smaller holding tanks, tank sizes have increased significantly. The tanks are weighed upon arrival and the Barite is then pumped into separate weighing tanks that measure the specific customer's requested amount. Only heavy-duty scales can withstand such high demand and continually perform accurately while withstanding rain, salt water, humidity and the other environmental challenges of an off shore locale.

M-I SWACO faces an additional challenge of weighing the multiple components used in their gel product. Depending on client requirements, anywhere from three to five chemicals are combined in one tank. The final product must then be weighing in full and transported to the customer. A rugged scale and multi-faceted system is required to keep maintain records of the various materials.

In order to solve this complex application, M-I SWACO approached G.T. Michelli, a local distributor. They devised a solution consisting of 35 separate systems, each requiring four (4) 250K batching Weigh Bars and the Model 1310 Indicators from Avery Weigh-Tronix.

"Since the application is taking place on the Gulf Coast and in the harsh elements, M-I SWACO needed a scale with high reliability to stand up to the challenge," said Mark Vicknair, regional manager at G.T. Michelli. "Avery Weigh-Tronix's Weigh Bars are durable and long-lasting, designed to withstand this kind of environment."

To weigh the Barite material, four 250K Weigh Bars are used to make up a scale with a one million pound capacity. These bars are used to weigh the chemical elements of M-I SWACO's products.

"This arrangement allows M-I SWACO's customers to take the maximum amount of Barite out to the oil rig in one trip," Vicknair said. "With a million pound tank, you can pump out a customer's entire order of Barite at once. It's like a gas station—though the process takes several hours due to the large amounts of

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product involved, a boat can simply go in and out of the weighing area without returning for multiple product batches. This saves time and money, while making sure the client gets the right amount of the product they order.”

The Model 1310 indicator is used as a method of confirming and recording weighing transactions. Connected to a printer, the indicator is also programmed to record time, date and product weight, giving M-I SWACO and their customers documentation of each transaction. Plans are in motion to take advantage of the 1310’s additional capabilities.

“The program M-I SWACO currently uses is one designed specifically for their application—and now that they’re replacing more of their older indicators with 1310s, there are plans down the line to utilize the 1310’s Ethernet connectivity,” Vicknair said. “This would let them to monitor tank weighing status via a PC browser from remote locations throughout the country.”

The robust Avery Weigh-Tronix equipment, paired with knowledge and assistance of G.T. Michelli, has proven invaluable for M-I SWACO.

“The Avery Weigh-Tronix equipment is high-quality and requires little maintenance, which reduces production downtime,” said Jose Herrera, facilities manager at M-I SWACO. “The service G.T. Michelli provides is excellent—we just pick up the phone, and they’re available to help us.”

Since its implementation over twelve years ago, the Avery Weigh-Tronix scale system has provided remarkable performance with few failures. The system allows M-I SWACO to efficiently and cost-effectively keep up with their customer’s increasing demands.

“The reliability of Avery Weigh-Tronix’s equipment has saved them a lot on replacement costs,” Vicknair said. “After more than a decade in operation, the equipment has needed next to none.”

For more information on M-I SWACO, visit www.miswaco.com [1]. To learn more about Avery Weigh-Tronix products and the wide range of industry solutions, visit www.wtxweb.com [2] or G.T. Michelli Co., Inc. at www.michelli.com [3].

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[1] <http://www.miswaco.com/>

[2] <http://www.wtxweb.com/>

[3] <http://www.michelli.com>