AMCOL Minerals Chooses Spiroflow to Handle Moisture Sensitive Chemicals

Customer Requirements

AMCOL Minerals Europe won a contract that involved mixing minerals with chemicals. One of the main chemical ingredients is supplied in bulk bags. It is, according to Technical Manager, John Withenshaw, "Super moisture sensitive and it is critical to the process that it is maintained in a dry condition before being introduced in to the mixer."

They, therefore, required a Bulk Bag Discharger that would protect the product from the atmosphere as well as preventing the escape of dust and spills into the working environment. The Discharger also had to be capable of weighing out the correct quantity of chemical for each batch. This weighing capability needed to take into account that there is sometimes part of the load from an almost depleted bag and the balance from a new bag.

Spiroflow Solution

The specification of the Spiroflow Bulk Bag Discharger includes bag massagers – essential to ensure the flow of this finely divided, cohesive, super moisture sensitive additive. The discharger is fitted with spring-loaded bag support arms which stretch the bag as it empties – essential to ensure complete discharge of the contents. The discharger has a spout closure device – a big advantage when you are discharging about 5 batches from each bag and need to ensure that no moisture can get into part used bags. The discharger has a dust containment cabinet with bag liner clamp – additional help in keeping moisture out of the product. The bag support frame and screw conveyor are mounted on load cells – essential to ensure that the correct amount of this super moisture sensitive ingredient is added to each batch.

Product is removed from the Spiroflow Bulk Bag Discharger via a horizontal screw which feeds a refurbished Aero Mechanical Conveyor already on site. The Aero Mechanical Conveyor, in turn, delivers ingredient to the mixer on the mezzanine floor above. The Spiroflow Big Bag Discharger has been in operation since January 2006 and as John Withenshaw confirms, "It is tremendous! The load cell set up is really good and the accuracy is great."

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