Powder discharging, handling and feeding solution

Case Study #8021

Mineral Powder Handling Solution Helps Oil Industry Giant Increase Productivity

Spiroflow recently partnered with Tennant Specs in order to help a major North American energy technology company implement a bulk bag unloading and mixer feeding solution that met strict safety and quality standards.

Leveraging Tennant Specs' deep oil industry expertise and Spiroflow's custom, industry-leading dry bulk material handling equipment, we were able to together engineer the perfect solution to help this oil industry giant. Today, the company is able to safely and efficiently unload and process nearly 100 mineral powder recipes with 20 different base products at the facility.

Customer Requirements

At Spiroflow, we are always happy when Tennant Specs calls us to partner. They are an experienced and knowledgeable group known for their oil and gas industry expertise. Their level of expertise is highlighted by the strength of their client relationships.

Tennant Specs told us that the company had an existing facility at which it wanted to upgrade its equipment. Our customer needed a bulk bag unloading and feeding solution that ensured dust from the mineral powders being processed were adequately controlled and contained - all while working around the technical challenges presented by confined space in the facility.

THE FIELD STUDY

At Spiroflow, we value Tennant Specs' commitment to truly understand the current situation before creating an engineered solution to meet the requirements. As part of its best practices, Tennant Specs commissioned a week-long field study to monitor the operations and identify points for process optimization. This field data and due diligence was invaluable in putting together the comprehensive solution to meet the client's needs.



SPIROFLOW SOLUTION

Working with Tennant Specs, we were able to put together a mineral powder discharging, handling and feeding solution with the following Spiroflow equipment:

- 3 Spiroflow Bulk Bag Dischargers with integral bag dump stations
- 6 Spiroflow Aero Mechanical Conveyors
- 1 Spiroflow Flexible Screw Conveyor

Spiroflow's internal automation & controls group (Spiroflow Automation Solutions Inc) worked in consultation with the end user to ensure a seamless integration with their existing controls system. In addition to being able to provide complete Automation Solutions for projects utilizing Spiroflow's process equipment, Spiroflow Automation Solutions provides controls systems solutions to fit any engineering projects across a wide range of industries and processes.

The comprehensive solution enabled our client to discharge 2000lb (907.2 kg) bulk bags, or smaller 50lb (22.6 kg) bags, in a custom combination discharger and efficiently feed the wide range of powders into mixers. The system also included low headroom hoists to help overcome the technical challenges of fitting the equipment into the space available. Spiroflow also customized the equipment with integral dust collectors to ensure dust containment at in-feed points. Additionally, the fact that Spiroflow's custom dischargers were able to be paired with the most appropriate conveyor from their wide range of offerings allowed an optimal solution to be provided.

How Can Spiroflow Help Your Business?

Contact us today to discuss your specific applications and needs