

Spiroflow Bulk Bag Discharger Helps Manufacturer Deliver High End Motorcycles in Top Condition

Customer Requirements

Shipping their 'dream machine' motorcycles internationally has proved challenging for a leading American motor cycle manufacturer. For deliveries to Europe, Asia, Africa and Australia, motorcycles are strapped to an aluminium pallet, poly-bagged and cartoned for shipment which can take up to eight weeks or more.

The problem was that moisture in the air caused rust spots, mildew or mold to form on the motorcycles which resulted in many hours of repair work by the receiving dealership, before delivery to the customer.

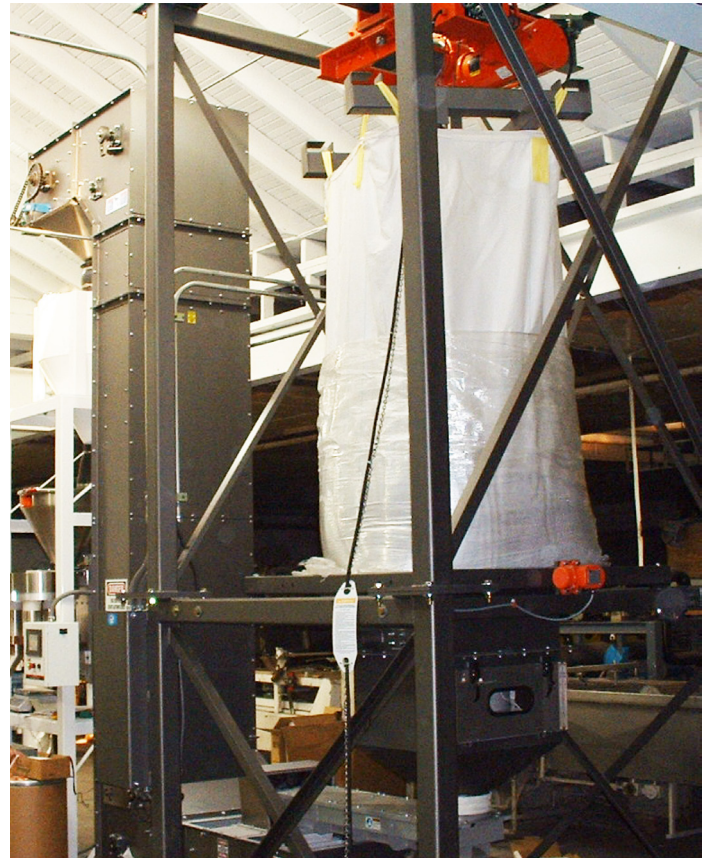
To solve the problem, the motor cycle maker approached a US based custom designer and manufacturer of moisture absorbing pouches. These pouches contain a granular mineral clay. The company in question provides moisture-absorbing solutions for keeping compressed air, hydraulic oil and shipment spaces moisture free.

The mineral clay is delivered in 2,000 lb bulk bags and has to be re-packaged in 3.3 lb and 4.5 lb pouches. To accomplish this, the company contacted Gough Econ, Inc. of Charlotte, North Carolina a specialist supplier of bucket elevators, belt conveyors and vibratory feeders.

Spiroflow Solution

The challenge was to design and install a material handling system that is extremely gentle which can handle the very fragile granular mineral clay and deliver it undamaged to the pouch filling machine.

The system includes a fully self-contained Spiroflow Model T6 Bulk Bag Discharger, a vibrating tray feeder and a Gough bucket elevator. The Spiroflow Bulk Bag Discharger has an integral hoist. This means that the pallet mounted 2,000 lb bulk bags can be brought to the discharger on a pallet truck and there is no need for a forklift truck to lift the bag into position. A sole operator lifts the bags into the discharger using a bag rigging frame, where the loops of the bag are properly secured. This frame is then raised by the hoist. The hoist runs along a fully-load tested integral "I" lifting beam enabling the raised bag to be traversed into position above the collection hopper. The collection hopper has an interlocked access door with viewing port to assure dust tight operation. The door is amply sized to enable the operator to untie and retie the bag sprout and liner as needed.



The bag support dish around the top of the collection hopper houses bag massagers. These are operated manually in case the material has become compacted during transportation or storage and doesn't discharge easily from the bag.

Discharged material is transferred from the discharger via the vibratory feeder into the bucket elevator up into the pouch packing machine.

The system began operating in August 2007. The end user confirms that the Bulk Bag Discharger and the transfer system operate flawlessly.