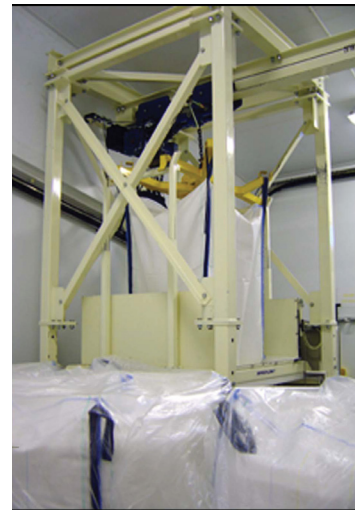


## Spiroflow Discharges Sugar for Dairy



### Customer Requirements

A leading dairy company producing an anhydrous milk fat blend with sugar for ice cream, chocolate and other confectionery applications, had a need to unload sugar from 1,000 bulk bags and then transfer the sugar to a blending area.

### Spiroflow Solution

Granulated sugar is received in 2,200 lb. bulk bags. The Spiroflow Bulk Bag Discharger is housed within a dedicated sugar storage area. Bulk bags are placed in front of the discharger by pallet truck. The bag loops are attached to a lifting frame at floor level and then the bulk bag is raised into place onto the discharger via a traveling hoist mounted on an integral runway beam.

The bulk bag sits on a flexible membrane which acts as a seal. Two pneumatically operated, opposing pinch bars located within the discharge hopper clamp the neck of the bulk bag. This allows the neck to be untied in complete safety through an inter-locked access floor in the side of the hopper. Once this access door is locked shut the pinch bars can be released to allow the sugar to discharge into the hopper.

Since the sugar is free flowing, no mechanical assistance is needed to aid the complete discharge of the bulk bags. Because of the way the bulk bag seals to the hopper, discharge is dust-free - essential to meet this customer's high hygiene standards.

Sugar is transferred from the discharger hopper up to two load cell mounted dispensing heads with two Spiroflow Flexible Screw Conveyors, each 55' long. These dispensing heads form part of the packaging operation and were included with the equipment supplied by Spiroflow.

The two conveyors operate independently to replenish their associated dispensing head hoppers as soon as the dispensing cycle is completed. The conveyors are driven by inverters allowing a combination of fast fill as well as trickle feed to ensure that each dispenser hopper is filled to the target weight.

The system is designed to go into "hold" mode each time a bulk bag is emptied. Level indicators within the discharger hopper cause an alarm to sound when this is about to happen. This enables a replacement to be readied in time for a swift change over - then the control system restarts the conveyors automatically to complete any interrupted batch. The Spiroflow Discharger has been in operation for nearly two years and is working well.

This product is covered by one or more of the following: US Patent Nos. 5,947,333 6,076,702