



Spiroflow Bulk Bag Unloader



Control Panel designed in-house



Bags of Sugar Waiting to be Unloaded

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 2,200lb/ 1000kg bulk bags.
- The Bulk Bag Unloader is housed within a sugar storage area.
- Bulk bags are placed in front of the unloader 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 unloader via a traveling hoist mounted on an integral runway beam.
- The bulk bag sits on a flexible membrane which acts as a seal and 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 interlocked 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 unload into the hopper.
- Since the sugar is free flowing, no mechanical assistance is needed to aid the complete discharge of the bulk bags.
- It is dust-free - essential to meet this customer's high hygiene standards.
- Sugar is transferred from the Bulk Bag Unloader hopper up to two load cell mounted dispensing heads with two Spiroflow Flexible Screw Conveyors, each 55'/ 17m long.
- 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 and 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.