

Spiroflow Offers Static Free Bulk Bag Discharging

Customer Requirements

The build-up of static electricity is a serious safety issue in many modern processes where powders are handled. How a material flows, its conductivity and the atmosphere where it is processed have an effect on static build-up potential. These factors must be addressed by plant managers prior to purchasing powder handling equipment.

Some of the products handled by Spiroflow's customers are inherently volatile and pose an ignition or explosion risk.

Spiroflow Solution

Spiroflow has developed powder handling equipment where static grounding materials and controls are an integral part of the design.

Advantages

- Completely dust sealed to prevent leakage of product into the atmosphere
- Full static grounding
- Static monitoring device to ensure the correct static grounding is in place prior to starting the machine

Simple to Use

Using a static conductive (dissipative) bag, the Ground Monitoring device automatically checks that the bag is correctly grounded before operation can begin.

The system will immediately shut down if set parameters are exceeded at any time. Visual indicators of the status of the bag and its good ground connection are used for ease of operation.

Safe FIBC Discharge

All ignition sources must be identified and eliminated. The FIBC should not be the only consideration when working towards eliminating the risks associated with processes that generate a combustible medium. It has been shown that even a thin layer of dust on the floor can create an explosive atmosphere should it become airborne. Therefore any escape of the product during discharge could be catastrophic.

Dust emission when discharging the FIBC is eliminated using a number of specially designed features. The bottom spout of the FIBC is located over an inflation and tension device which prevents dust escape during the emptying process.



Bulk Bag Discharging System with Static Grounding Device



Spiroflow T9 Bulk Bag Discharger

The Ground Monitoring system constantly checks the surface resistance of the FIBC to ensure that the bag functions within relevant safety standards and remains correctly grounded at all times during the discharging process.

Customers using specific FIBCs, or who have their own safety standards, may be supplied with alternative resistance ranges to special order.

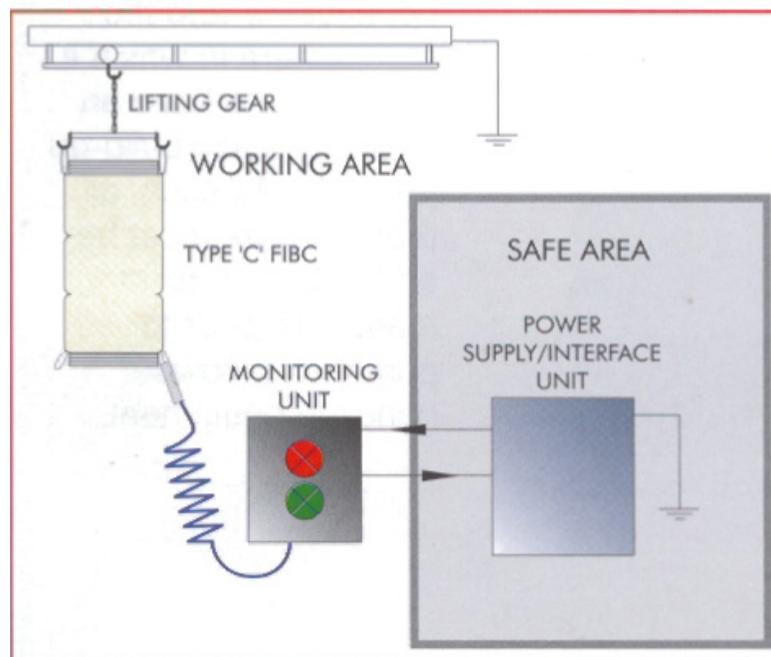
The spout can also be pneumatically stretched to promote a smooth and cylindrical path for the material to flow directly into the process vessel or integral conveyor.

Material can still escape when the emptied bag is removed, so total discharge of product from the bag is crucial. Therefore, Spiroflow fits bag massagers at every corner of the machine and two in the

base. The bag is attached to a pneumatic bag tensioner (patented) and an inner, lower clamp which stretches the bag during unloading to eliminate the possibility of creases being formed and holding product residue.

Following extensive development at Spiroflow's factory, several Model T-9 Bulk Bag Dischargers have been installed, including six machines for a major chemical manufacturer.

There is a height adjustment facility for bags of different sizes as well as a lifting frame locator for the correct alignment of the discharger with the recipient vessel which is used to further ensure complete containment of product. Other special design features allow for Cleaning In Place (CIP).



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