

# POWDER & BULK SOLIDS

The Source for Dry Processing and Bulk Handling Technology

## FIBC Dischargers: Streamlining Bulk Material Handling

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### Critical Steps to Minimize Segregation in Processes

Preventing segregation of powders and granular material in process vessels is an important issue. The undertaking can be broken down into three separate tasks.

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### The Cost and Risks of People Entering Bridged Silos

Regardless of what is being used, we are still seeing injuries and deaths due to workers entering silos. There are devices that are safe and can prevent disasters.

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### The ROI of Providing Optimum Dusting Mitigation When Discharging Bulk Bags

It is not just about reducing product loss or saving on labor; it's about creating a safer, more efficient, and productive work environment.

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### Spiroflow Unveils Twin-Line Bulk Bag Filling System

The new twin-line bulk bag filling system addresses the limitations of slow, outdated equipment that was prone to spillages and excessive product



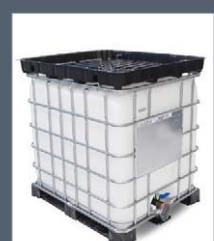
and dust emissions. Introducing several key features that enhance production capacity, weigh accuracy, and operator ergonomics, the system is able to handle up to 20 x 500-kg bulk bags per hour on each process line - a total of 40 bulk bags. Weigh accuracy is a key aspect of the new system as it achieves -0/+500g per bulk bag.

**Spiroflow Systems**, Monroe, NC 704-859-2085  
www.spiroflow.com

### Full Size Funnel for IBC Filling

Denios-US introduces the new Falcon funnel model full size for the fast, safe, and efficient refilling of IBC totes. Constructed of chemical-resistant polyethylene (PE), the full-size model sits atop a standard IBC tote, covering the entire surface of 275–330-gal IBCs. It features a large surface area and collection volume for fast transfer of materials from bottles, jugs, drums, and more. Liquids run off the domed base and through a large drain opening into the standard tote opening. Units sit atop IBC or can be affixed using optional connection kit.

**Denios**, Louisville, KY 877-388-0187 www.denios-us.com



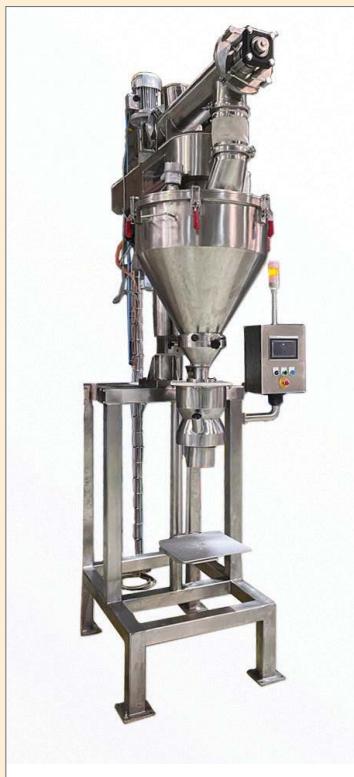
## ProductFocus

## Packaging &amp; Bagging

**Sanitary Bag Filler**

This 25-kg bag filler utilizes sanitary stainless steel construction while the bag is open, and switches to carbon steel painted conveyors after bag has been sealed. The design enables one operator to fill 8-10 bags/hr and palletize manually. This model includes a checkweigher, sealer, metal detector, and accumulation conveyors. Powders are reclaimed from the packaging process using effective dust management. The model pictured is sanitary, food-grade, and being used by a plant-based protein processor to transfer powders from dryer into 25-kg bags. PPS specializes in custom, sanitary designs and timely project delivery.

**Powder Process-Solutions,**  
Chanhassen, MN 877-933-2556  
[www.powder-solutions.com](http://www.powder-solutions.com)

**Valve Bag Packers**

Bagging machines ensure accurate, efficient, and safe packaging that complies with the relevant standards of the food, pharmaceutical, and chemical industries. They also improve the packaging traceability and hygiene. These auger and impeller valve bag packers have respective weight tolerances of 0.1% and 0.5% when bagging a range of powders and granules at up to 6,000 kg/hr. A taper sleeve on the filler port makes the packaging process dust-free. The port is located at a comfortable height for ergonomic reasons. The material spillage cover is another feature that keeps dust in check. Available in CE and ATEX certification options, these bagging machines have a GMP built for compatibility with sensitive pharmaceutical and food products.

**Cybernetik Inc.,**  
Summerville, SC 224-634-7250  
[www.cybernetik.com](http://www.cybernetik.com)

**RIBBON/PADDLE/PLOW  
BLENDERS HANDLE  
POWDERS TO PASTES**

**VEE-CONE BLENDERS  
SANITIZE ULTRA-FAST,  
THOROUGHLY**

**FLUIDIZED BED MIXERS  
BLEND ULTRA-FAST,  
GENTLY**

Agitators forced through stationary materials impart shear needed to reduce agglomerates and blend pastes and slurries. Basic industrial units to state-of-the-art sanitary designs with heating/cooling jackets, liquid spray additions, and high-speed choppers/intensifiers. Capacities from 1 to 1,150 cu ft (.03 to 32 m<sup>3</sup>).

Smooth internal surfaces free of baffles, shafts and bearings allow unobstructed material flow, plus complete discharge through a gate valve for rapid cleaning or sanitizing of the easy-access interior. Uniform blends are typically achieved in as little as 15 minutes with equal efficiency at fill volumes from 100% to 25% of capacity. Ideal for dry and granular materials.

MUNSON® Fluidized Bed Mixers feature two shafts with paddles that counter-rotate at high speeds to fluidize material, achieving homogeneous blends in 10 seconds to 2 minutes. Low shear forces minimize friction with little or no degradation and insignificant heat generation. Drop-bottom gates provide rapid discharge. Capacities from 0.21 to 283 cu ft (6 L to 8 m<sup>3</sup>).

## WORLD'S FASTEST BLENDING AND CLEAN UP

### No other bulk solids mixer offers these benefits:

- 100% Uniform blending and/or liquid additions in one to 2-1/2 minutes
- Total discharge with no segregation
- Ultra-gentle tumbling action (versus blades forced through batch)
- Ultra-low energy usage
- Equal efficiency from 100% to 15% of capacity
- No internal shaft or seals contacting material unlike other rotary mixers



**ROTARY BATCH MIXER**



Fast yet gentle  
4-way mixing action:  
fold/tumble/cut/turn



DETAILS  
& VIDEOS

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[INFO@MUNSONMACHINERY.COM](mailto:INFO@MUNSONMACHINERY.COM)  
[MUNSONMACHINERY.COM](http://MUNSONMACHINERY.COM)



### LUMP BREAKERS REDUCE AGGLOMERATES, FRIABLE MATERIALS

Remove lumps and agglomerates from bulk materials. Dual rotors with three-point, single-piece breaking heads rotate with minimum clearance inside a curved, perforated bedscreen. On-size material exits through bedscreen apertures from 1/32 to 2-1/2 in. (0.8 to 63.5 mm) in diameter. Fits tight spaces between upstream and downstream process equipment.



### PIN MILLS REDUCE FRIABLE SOLIDS IN CONTROLLED SIZE RANGES

Coarse to fine grinding of friable powders, flakes and granules into controlled particle sizes at high rates per HP/kW. High-speed rotation of the inner disc creates centrifugal force that accelerates bulk material entering the central inlet of the opposing stationary disc through five intermeshing rows of pins. Desired tight particle size distribution obtained by controlling the rotor speed.