

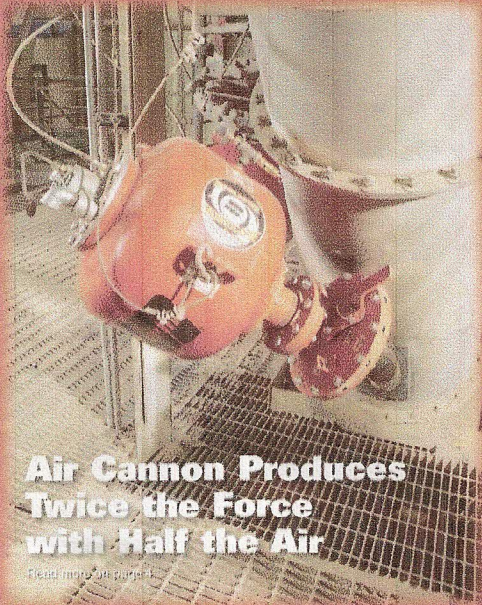
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www.PowderBulkSolids.com

# POWDER BULK SOLIDS

The Source for Dry Processing and Bulk Handling Technology



## Air Cannon Produces Twice the Force with Half the Air

Read more on page 1

### IN THIS ISSUE

#### Case Study

A Ralex screen for Weidner Silica's daily production of 150 tons of round-grain silica sand can be maintained by a single person and attain optimal performance and life. **Read more on page 10**



#### Screening, Classifying Focus

MinowClean screening machines feature unique anti-blinding devices and a hand-scrapping motion that helps to better throughput and increase the screen's banding. **Read more on page 12**



#### Technical Exchange

Screen bonding is a common problem that is easily fixed with screen-cleaning devices. The article reviews the most common methods of screen cleaning. **Read more on page 20**



#### Solids Flow Meter

The MacFlow is designed to measure medium to high flow rates (15 to 400 t/h) of powders, pellets, and granules. In the past, only complex mechanical systems such as impact flow meters and weigh feeders were possible. Advancements in electromagnetic velocity measurement and microwave penetration have produced an ultra-precise, accurate speed meter that is less than 16 in. in length. The meter can fit anywhere in a process, is free of clogging conditions without straight-run requirements. The unit is ideal for truck and railcar loadouts or for performing process measurements after rotary valves, screw feeders, bucket elevators, air creeps, etc. The meter's accuracy is ±1 to ±2% with repeatability to 0.2%. **GIS Inc., Franklin, TN, 615-651-3300, www.cdfireview.com**

#### Reverse-Air Dust Collectors

The RAC Series of reverse-air collectors features an advanced reverse-air cleaning system that removes accumulated dust from filter bags without requiring compressed air. Each collector has an internal blower powered by an explosion-proof motor. A cleaning arm with high-velocity nozzles directs dust, achieving optimal continuous cleaning of each filter bag with every rotation of the arm. A heavy-duty 3-hp explosion-proof gear drive motor drives the continuous rotation of the arm. The collectors are suitable for filter dust from animal feed, flour, and other dry bulk materials. A variety of filter media are available: standard pleated and tube & web-in-cloth air filtration; 10-ply carbon-lined construction; steel-band top-and-side bags; and heavy-duty 12-wire cages made of 11-gauge galvanized steel. **Sly Inc., Cleveland, OH, 800-334-2982, www.slyinc.com**



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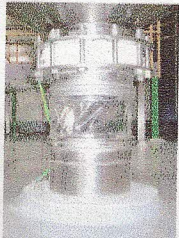
Editor's Choice

Powder/Bulk Solids

Clamp-Free Flexible Sleeves for Spouting

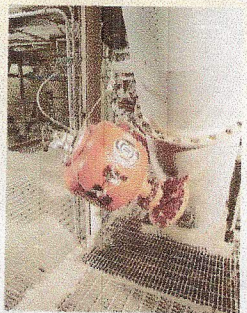
A new design to counter spouting offers better speed, safety and sanitation than wormgear-style hose clamps. Advantages include the ability to remove and replace the flexible sleeve in seconds without tools, no risk of injury to people or damage to equipment from screwdrivers, a cross-free design that eliminates any chance of product buildup, and a choice of straight or angled sleeves. The USDA-A (HACCP)-accepted sleeves have an airtight seal that eliminates dust. The patented BEM fitting design works with Fobos, or set, and unclamping equipment. Each assembly consists of one stainless steel adapters (welded to spout), and one flexible sleeve. Both ends of the sleeve have a flexible spring pocket that forms an airtight seal when it's inserted into the adapter. The right wall easily resists sudden-pressure shock and can pass a 10-pound pressure test. The sleeves can be fabricated from clear, natural 0.003-in polyester, Kevlar, and other materials. The sleeves are 4 in. through 26 in. and six sizes are available.

No-Con Equipment, Chanhassen, MN 57763-0431  
www.nocon.com



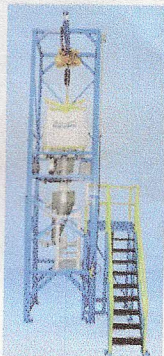
Air Cannon

The Ila Master Hurricane Cannon features an efficient discharge valve that provides more force output than the company's conventional air cannon designs to remove buildups and improve flow. The retro-engineered design supplies twice the force using half the air. Air cannons provide a powerful blast of air to improve the flow of bulk materials through storage and process vessels. Applications include the recovery of clogs from bins and silos and the cleaning of bulk bins in cement kiln preheater towers. The new one's efficient discharge design enables the use of smaller air receivers, simplifying installation and maintenance. The new air cannon is designed to be worker friendly, since the valve is accessible without disturbing the tank from the vessel wall. All moving parts—seat, piston and valve—can be removed and replaced as a single assembly. Martin Engineering, Neponset, IL, 800-544-2911, www.martineng.com



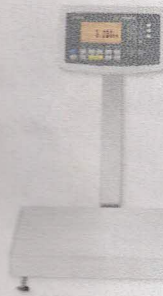
Bulk Bag Discharging System

The patented Material Master bulk bag discharging system offers exclusive advantages over traditional production efficiency. A Sure-Seal pneumatic spout-clamp system ensures dust-tight operation, while a Flow-Master measuring system ensures positive material flow. A volumetric feeder meters product into an existing conveyor, while a Flow-Master discharge gate helps maintain flow for partial bag discharging. Type 304 stainless steel on all product contact surfaces ensures easy cleaning. The company specializes in custom-designed systems to fit individual application requirements. Material Transfer & Storage Inc., Allenton, MI 800-330-7320, www.materialtransfer.com



Food Scales

The Gamble food scale series has been specially designed to withstand rigorous and complete cleaning for 24/7 or shiftwork production and accuracy. Manufactured in accordance with European Hygienic Engineering & Design Group (EHEDG) guide lines, all standard models are made entirely of high alloy AISI Type 304 stainless steel, which is ideal for food laboratory applications as well as chemical and pharmaceutical markets. It will protect against 1% of concern. A platform option is also available with electroplated AISI Type 316L stainless steel to ensure a surface finish of less than 0.8 µm for components that come into contact with food. An open design prevents contamination from inaccessible areas, and detailed cleaning instructions simplify the analysis and control of potential hazards in strict accordance with HACCP regulations. Sartorius Corp., Eden Road, NY 800-635-8900, www.sartorius-usa.com



Automatic Sack Opening and Emptying Machine

The LaboSave fully automatic sack opening and emptying machine handles more than 100 sacks/hr without an operator. Full pallets are loaded by a forklift operator, and the unloading of the empty pallet is done automatically. Everything else is performed without human intervention. For each cycle, the unit mechanically grabs a layer of sacks regardless of orientation, position, or if number or type of sack per layer. After the sacks without any loss of contents, and empties the sacks into a hopper, ensuring complete utilization of the contents. The machine handles an average of two to five layers per minute. The use of mechanical grabbers facilitates the handling of most types of sacks, including plastic, paper, and burlap sacks, single or multilayered sacks, and sacks filled with granular or powdered product. The unit is controlled by a touch-screen, user-friendly, automatic control system, enabling the control of system parameters. Avat Robotics and Engineering Ltd., Tzfatim Industrial Zone, Israel 0772-4996061, www.labosave.com

