

POWDER & BULK SOLIDS

The Source for Dry Processing and Bulk Handling Technology

Why Do Rotary Airlocks Leak, and When is it a Cause for Concern?

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Considerations for Wear in a Pneumatic Conveying System

Wear can be a problem in any pneumatic conveying system, especially those conveying abrasive materials and/or those that are operating at high velocities.

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The Importance of Rotor Selection

There are a range of rotor types, styles, and options, and it is critical that a user discusses the finer points of their application with a valve supplier to ensure optimal valve performance.

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Valves, Gates, & Airlocks Focus

Pelletron's powder valves are available for various differential pressure applications for 22-50 psi. The closed-end rotor is equipped with 12 or 14 vanes with beveled rotor tips.

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Tilt-Down Conveyor

This new mobile tilt-down flexible screw conveyor fits restrictive processing situations and offers a low center of gravity and full accessibility from standing height. Positioning of the support boom against and parallel to the conveyor tube minimizes the height needed to maneuver the system under doorways and mezzanines, and to fit the conveyor's discharge between process equipment inlets and overhead obstructions. A low center of gravity maximizes stability during operation and when rolling the unit between multiple processing tasks and wash down stations.

Flexicon Corp., Bethlehem, PA 888-353-9426
www.flexicon.com

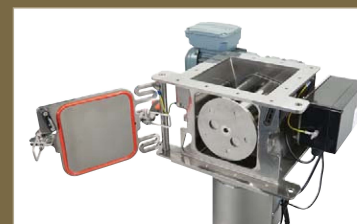


10,000-Gauss Rotary Magnet Separator

This 10,000-gauss rotating cleanflow magnet filters magnetic and paramagnetic particles out of poorly flowing, greasy powders in the food, pharma, and chemical industries.

The magnet rotor is composed of seven strong magnet bars, equipped with Neodymium-iron-boron magnets, each with a diameter of 32 mm. This is 40% thicker than regular magnetic bars and used by the magnet manufacturer in the static version of the cleanflow.

Goudsmit Magnetics, The Netherlands, +31 (0)40-2213283
www.goudsmitmagnets.com



Screening, Classifying, & Separation



Intelligent Magnetic Separator

Intell-I-Mag is an “intelligent” magnetic separation product that tells you when a magnet needs to be cleaned or, just as important, when it doesn’t. This patented technology is a way to save money and personnel resources. With Intell-I-Mag everything happens in real time. Embedded sensors are monitored by a controller that alerts plant operators when the magnetic separator has reached user-defined levels or operating temperatures have reached levels that can damage the magnet material. Intell-I-Mag delivers 24/7 peace of mind and automated magnetic separator monitoring.

MPI | Magnetic Products Inc.,
Highland, MI 248-887-5600
mpimagnet.com

Screen Feeder

The Stedi-Flo screen feeder is a screen and feeder combination using either a single-, double-, or triple-deck screen and a brute force drive with two electric vibrating motors. It is ideal for screening dry granular material from one in. down to 30 mesh particle size. The screen feeder can be flood fed and mounted directly

below any size surge hopper and easily handles abrasive materials like silica sand or fine products such as granulated sugar. The screen deck is easily replaced. It is available in either stainless steel or mild steel construction.

Dynamic Air Inc., St. Paul, MN 651-484-2900 www.dynamicaire.com



Vibratory Feeder/Screeners

Erie Technical Systems provides customized solutions for feeding, conveying, and scalping applications for many different industries, from feeding powdered chemicals into downstream equipment to separating coolant from metal chips. The feeder shown was used in a food-grade application powered by dual rotary electric vibrators. The company was asked to not only feed product, but to dewater it at the same time. Through free testing in an onsite test lab, engineers designed a system that incorporated an intake hopper with an adjustable gate to control flow. Once dialed in this allowed the product to uniformly travel over the perforated plate allowing the water to pass through into a drain while the product was transferred onto the next process. This type of feeder can be customized to specific needs and used in multiple applications with capacities ranging from 100 lb/hr to hundreds of tn/hr.

Erie Technical Systems Inc., Erie, PA 814-899-2103 bulkfilling.com



Round Separators

Round separators are ideal for separating solids from liquids or segregating dry materials into various particle sizes. As many as four decks can be incorporated in one separator for simultaneous classification into five fractions. Round separators are available in 18-, 24-, 30-, 40-, 48-, 60-, and 72-in. screen diameters. The newest generation separator, the HX, increases safety, improves clean-up, and simplifies adjustments. The ProGlide linear weight system makes changing the settings simple as there is only one weight to move. The weights are moved radially to dial in the optimal horizontal/vertical amplitudes and force to improve the separator’s efficiency and throughput.

SWECO, Florence, KY 859-283-8400 www.sweco.com



Vibro and Turbo Sifters

Sifters are a crucial equipment in the food and chemical industry. They eliminate physical contaminants such as hair, fiber, dust particles, and threads; remove oversized particles; and grade powders as per size. Recent design innovations have further improved the noiseless operation of the turbo sifter and enabled better flow rate control via variable frequency drive (VFD). For the vibro sifter, the optional anti-binding device, which prevents material accumulation, is now available in mechanical, rotary, electromagnetic, or ultrasonic variants. Design upgrades have also made sifter maintenance easier than

before. Built to GMP standards, our sifters are available in an optional ATEX design for explosion proofing. They integrate seamlessly into existing setups and have automation options for upstream and downstream processes. Screen sizes for the sifters range between 7000 and 40μ, and their throughput can be as high as 6,000 kg/hr.

Cybernetik Technologies Pvt. Ltd. etik, Pune, India +91 20 679 09600 www.cybernetik.com



Centrifugal Power Sifters

High-capacity centrifugal power sifters separate clumps from desired material by means of rotating paddles that push material through a sieve. Numerous screen cloths, mesh and wedge wire screens (for more abrasive materials) are available to achieve capacities as high as 100,000 lb/hr. Five models are available in mild steel or stainless steel for sanitary applications.

S. Howes, Silver Creek, NY
716-934-2611 www.showes.com