



Product Digest

this month's topic **Solids Handling**

Dust Filter Operates in Humid Environments



The HemiPleat Synthetic dust collector filter contains high-efficiency, pleated, synthetic media suitable for use in harsh, humid environments at temperatures up to 160°F. Wider spacing between filter pleats exposes more media to the air stream, which lowers the pressure drop and improves dust release during pulse cleaning. The polyester filter media is washable and resistant to moisture, enabling it to handle heavy dust loading conditions and hygroscopic dusts generated by food, pharmaceuticals, and other processes. In addition to the standard model, a nanofiber-media model is available that has enhanced filter efficiency, is easier to clean, and has a longer service life.

Camfil APC
www.camfilapc.com

Fabric Storage Buildings Are Durable

These tension fabric buildings are an effective and long-lasting solution for the storage of bulk solids. They incorporate solid structural steel beams instead of the hollow-tube, open-web trusses that are common to other fabric building constructions. This design protects these buildings from the hazard of unseen corrosion

that originates inside hollow tubes. The hot-dip galvanized framework requires little maintenance and has a long life, even in challenging conditions. Additionally, because they are made of structural steel, the buildings can be customized beyond the confines of standard sizes. The fabric roofs are made of high-quality polyethylene that allows natural light to permeate the structure, and insulation is available to meet energy codes.

Legacy Building Solutions
www.legacybuildingsolutions.com

Particle-Sizing Probe Has a Sanitary Design



Particle size is a performance-defining characteristic of many products, and inline particle-sizing probes enable robust process monitoring and control. The Parsum IPP-80 provides continuous size data for agglomeration, coating, and granulation process monitoring of powders, pellets, and granules ranging from 50 μm to 6,000 μm . With a sanitary stainless steel design, the probe operates with minimal intervention, and includes built-in self-diagnostic tools that ensure data quality. The probe resists the effects of vibration and requires no manual alignment, and with no moving parts or user-accessible components, the probe handles the rigors of a harsh processing environment.

Malvern Instruments
www.malvern.com

Level Detector Includes Functional Diagnostics

The Roto-Bin-Dicator PRO is a paddlewheel-type device that monitors the level of dry bulk material and indicates when a change occurs. Unlike

other paddlewheel instruments, this model includes functional diagnostics that detect a unit fault even when the paddle is buried in the bulk material. It can also differentiate faults through flashing sequences of the green LED light. Redundant detection methods monitor shaft rotation and motor behavior, enabling the system to reliably report readings without false positives. Additional features include universal power, more than ten process fitting options, and time delay, motor pause, and sensitivity adjustments.

Bindicator
www.bindicator.com

Rotary Drum Separates Solids Without Clogging



This compact rotary drum screen removes solids from industrial waste streams and recovers solid products from process streams at rates of 600 gal/min to 2,790 gal/min without blinding or clogging the screen. Solid-laden effluent exits from the head box and flows over a weir, flooding the entire length of the drum screen. Solids deposit on the gravity drain through slotted apertures, then are removed by a doctor blade and chute. Liquid passing through the screen falls onto an internal baffle that concentrates the flow, which dislodges any solids trapped in the apertures. The rotating drum is the only moving part, which minimizes capital and operating costs, as well as maintenance. Compared to non-rotating equipment of equivalent capacity,

this unit requires less floor space and headroom. Models with 24-in.- and 36-in.-dia. drums and with various lengths are available.

Munson Machinery Co., Inc.
www.munsonmachinery.com

Airslide Prevents Clumping of Sticky Materials



This airslide inlet tray is installed at the entry of a vibrating fluid-bed dryer or cooler to prevent sticky materials from clumping. The stainless steel plate contains small openings that face downstream and parallel to the inlet feed deck. As material enters the dryer, the airslide tray directs a stream of heated air through the holes. Because the incoming material begins drying immediately and advances slowly to the primary drying zone, the potential for sticky products to block the inlet is drastically reduced. The tray is suitable for use in drying and cooling applications of sticky products, such as algae, wood pulp, or sludge.

Witte Co., Inc.
www.witte.com

Tilt Switch Detects High Solids Levels

As the level of powder or bulk solids in a bin rises, the top-mounted BM-TSM mercury-free tilt switch begins to move; when its tilt reaches 15 deg., a switching mechanism activates an alarm. The shaft of the switch is custom-made in lengths of 1 ft to 8 ft, and users can select a paddle or sphere end-of-shaft design. The switch can be used

in materials with a bulk density of at least 15 lb/ft³. The simple and rugged mechanical design operates reliably at a range of temperatures and withstands harsh granules and solid lumps. A protective boot ensures long operational life.

BinMaster
www.binmaster.com

Flexible Screw Conveyors Are Built for Longevity



This line of application-specific flexible screw conveyors and hoppers built for harsh and demanding applications meets the need for process-critical conveyor systems. The gear drives and motors are specified to ensure optimal output torque and motor horsepower to bring maximum power and conveying efficiency to the intended application. The conveyor discharge head is made of 12-gauge Type 304 stainless steel and has continuous-weld seams that eliminate the gaps, joints, bolts, and associated material accumulation common with other constructions. To protect crucial operations from damage caused by early wear of thin-wall screw casings, these conveyors include 0.25-in.-thick stainless steel or carbon steel casings that are twice the thickness of

typical alternatives. The hoppers have steeply sloped sidewalls, shear-drop material feed guides, and a flangeless conveyor intake that draws in material and eliminates problems such as bridging, and ratholing.

National Bulk Equipment, Inc.
www.nbe-inc.com

Screen Replacement Program Keeps Vibratory Screeners Running



The K-Series replacement screen program for round vibratory screeners of any make and model helps users to increase screening accuracy and reliability, while decreasing downtime and costs. Five types of screens (K-Dura, K-Strong, K-Sani, K-Klean, K-Perf) are available for varying applications and requirements, in diameters of 18–100 in. In addition to providing exact screen replacements, the service can also recommend variations that deliver higher throughput, durability, or anti-blinding performance for screening existing or new materials. Weld-mounted or epoxy-mounted screens with or without center holes are available in Type 304 stainless steel, Type 316 corrosion-resistant stainless steel, magnetic Type 430 stainless steel, and exotic alloys, as well as synthetic materials, all in single- or double-mesh designs. Flexible purchasing plans include quantity discounts, blanket orders, just-in-time delivery, rescreening of existing rings, and custom inventory management.

Kason Corp.
www.kason.com