



What's New

SOLIDS AND FLUIDS HANDLING

Tank Stand can Withstand Severe Conditions



These modular polyethylene tank stands are designed for use with a full-drain outlet (FDO) assembly. They can be installed on any suitable flat surface to elevate polyethylene tanks 12 in. above grade, accommodating a full-drain tank without the need to pour concrete. The chemical-resistant stands are suitable for virtually all corrosive environments, and in tests have been shown to resist over 300,000 lb of crush force. Features include corrugated sidewalls for maximum

support, interlocking dovetail joints to secure modular sections together, and optional wind load anchoring points. The lightweight modular sections can be easily disassembled and relocated to a different site. A wide range of color choices is available.

Assmann Corp. of America
www.assmann-usa.com

Diaphragm Handles Abrasive Slurries

Complementing its existing line of butyl- and ethylene propylene (EP)-based diaphragms, the Saunders XA diaphragm relies on a compound based on EP technology that provides increased erosion resistance in both corrosive and abrasive applications. The design provides longer flex life, with a 70% improvement in elastic recovery. This improves sealing performance and reduces emissions. It also reduces downtime and increases productivity, helping to reduce the cost of ownership. The Saunders XA diaphragm is fully compatible with all existing Saunders industrial diaphragm valve (IDV) products, and can be used

in both new and retrofit applications. It complies with the Pressure Equipment Directive (PED) 92/23/EC and conforms to EN 13397 and MSS SP88.

Crane ChemPharma Flow Solutions
www.cranechempharma.com

Massaging Device Improves Material Discharge



Bulk-bag dischargers and unloaders often experience difficulties dispensing compacted or otherwise hard-to-move solids. This firm offers three types of pneumatically powered massage paddles to promote the flow of compacted, cohesive, or sticky materials from bulk bags. Side massagers can be moved vertically to achieve optimum position (which is usually along the bottom one-third of the bag). Base massagers are used to break up materials that have been compacted along the bottom of the bag. Corner massagers apply lump-breaking forces needed to ensure that all four corners of the bag are completely emptied. Concurrently with massaging, patented spring-support arms stretch the bag and any liner to ensure that no product is left behind in the folds.

Spiroflow Systems, Inc.
www.spiroflowsystems.com

Flowmeters are Compatible with Viscous and Highly Corrosive Fluids

The Model IOG industrial oval-gear flowmeter is part of a new line of inline and flanged oval-gear meters and industrial registers. These instru-

Partnership Improves Mixing and Blending

Pulsair Systems and Linde Gases have partnered to provide a more effective and efficient way to mix liquids. Pulsair's pulsed-air technology releases compressed air or gas, supplied by Linde, from beneath flat round plates at the bottom of a tank or vessel to create circulation and effect mixing of the liquid(s). As the gas is forced out between the plates and the tank floor, the sudden burst shocks the liquid and sweeps away the heavier liquid(s) and solids. The gas accumulates above the plate into a single large, oval-shaped bubble that rises to the surface, creating a vacuum that pulls heavier liquids and solids up from the bottom of the vessel and pushes the lighter liquid up and out toward the tank perimeter. The lighter liquid moves to the sides of the tank and travels down the tank walls to the bottom so the process can be repeated. The use of pulsed compressed air ensures complete and even blending of different-density materials. The technology significantly reduces operational costs and downtime — with no moving parts inside the tank, the mixers require minimal maintenance and can be expected to complete 100 million blending cycles without incident.

Pulsair Systems
www.pulsair.com

Linde Group
www.linde.com



ments are suitable for a variety of applications, including aqueous solutions, petroleum-based fluids, and other highly viscous fluids. The Model IOG meter has an accuracy of $\pm 0.5\%$ and operates at pressures up to 800 psi. It can be installed in tight spaces, either vertically or horizontally, and does not require a straight run of pipe or flow conditioning. Four new register options are available: the ILR 700 standard, ILR 710 single-pulse output, ILR 720 dual-pulse output, and ILR 730 analog output registers.

Badger Meter

www.badgermeter.com

Screw Conveyor Maximizes Dust Containment



The Helix Hi/Lo mobile flexible-screw conveyor is an all-in-one unit that comes with an integrated bag compactor and a dust-collection hood at the bag-dump station to improve plant and worker safety during the processing of small bags of powders or bulk solids. Filtration options provide collection efficiency down to 1 micron to capture

and confine airborne material within the unit. The system's filters are cleaned using a reverse pulse-jet system. Dual pneumatic rams push a plate to compact a pile of empty bags and produce an easy-to-handle 4-ft³ bundle, and an integrated bag compactor allows users to dispose of bags via a pass-through port from the dump station. The conveyor's design allows a single worker to easily handle washdowns, auger changeouts, and servicing from floor level. An electric actuator automatically lowers the auger to an easy-to-access height. Exclusive T-handle couplings allow disassembly in minutes. Optional external vibration can be added to promote material flow. Stainless steel is used for construction, with sanitary or food-grade finishes available. The unit can convey to heights up to 12 ft and at rates up to 25 ft³/min.

Hapman

www.hapman.com

INSTRUMENTATION **Absolute-Pressure Transducers are Small yet Sensitive**



The miniature, high-sensitivity piezoresistive absolute-pressure transducers in the Endevco Model 8530B Series are available for a range of hydraulic and pneumatic pressure-measurement applications. With a 3.86-mm-dia. face and weighing just 2.3 g, these devices are available in ranges of 200, 500 and 1,000 psia with 300-mV full-scale output and high resonant frequencies of 750 kHz (200 psia) and 1,000 kHz (500 and 1,000 psia). The transducers rely on an active, four-arm strain gage bridge that is diffused into a sculpted silicon diaphragm, which provides

maximum sensitivity and wideband frequency response. The volume behind the diaphragm is evacuated and glass-sealed to provide an absolute-pressure reference. The transducers also feature self-contained, full hybrid temperature compensation, providing stable performance over a temperature range of 0°F to 200°F (−18°C to 93°C).

Meggitt Sensing Systems

www.meggitt.com

Level-Measuring Device Meets 3A Sanitary Standards



The Deltapilot FMB 70 hydrostatic level pressure transmitter measures level in units of pressure, height, volume, or mass with an accuracy of $\pm 0.1\%$. It has a 316L stainless

steel housing with a polycarbonate sightglass, and a water-tight Contite pressure-measuring cell that is hermetically sealed for protection against condensate, condensation, and aggressive gases. These features enable the device to withstand harsh washdown environments such as those in food, beverage, dairy, and pharmaceutical applications. The water-tight NEMA 6P-rated (temporarily submersible) housing operates at process temperatures from 14°F to 212°F (−10°C to 100°C). Built-in temperature compensation responds quickly to temperature changes during batch processing and clean-in-place (CIP) or sterilize-in-place (SIP) cycles, making the instrument appropriate for balance-tank applications where rapid temperature changes can lead to process upsets or product losses.

Endress+Hauser

www.us.endress.com