



SOLIDS AND FLUIDS HANDLING

Palletizers Enable Flexible Design



The Alvey 890 mid-speed case palletizer is said to be this company's most flexible palletizer to date — able to accommodate virtually any pattern, a wide range of package types and sizes, and a variety of pallet platforms. The embedded “creation utility” function has been enhanced to meet increasingly complex pattern requirements. This allows operators to build four different layer configurations in one load. Capable of rates up to 75 cases/min, the Alvey 890 has a compact footprint and flexible layout with front and side discharge configurations. This latest model includes enhanced diagnostics and alarm history, lower noise levels, standard Ethernet communication capabilities, an improved frame design (to reduce installation time), and fully integrated and enhanced safety guarding with Category 3 control.

Intelligrated

www.intelligrated.com

Device Creates Uniform Droplets

The pressure-based Droplet Starter System contains all necessary pumps, connectors and chips needed to produce highly monodispersed droplets from 20 μm to 150 μm with a zero tolerance of $\pm 1\%$. Operating over a wide pressure range of 0 to 10 bar, this system is chemically resistant

and its modular design makes it easily expandable to meet future application requirements. By ensuring pulseless and stable liquid flow, the system eliminates dead volume and sample waste, thereby reducing associated reagent costs. A lockable pressure chamber and an innovative three-way chamber lid allow for the simultaneous pumping of up to three liquids, making it ideal for entry-level experimentation.

The Dolomite Centre Ltd.

www.dolomite-microfluidics.com

Adaptive Double-Diaphragm Pump Reduces Energy Needs



The AirVantage is a high-efficiency, air-operated double-diaphragm (AODD) pump that is designed to save energy, improve plant efficiency, and reduce maintenance on both the supply and demand sides of compressed-air systems. It reduces air consumption and saves energy at the pump by reducing the amount of air volume needed per diaphragm stroke. The microprocessor-based controls are adaptive and continuously manage the amount of air volume required to operate the pump at desired flowrates, maintaining constant flow without manual operation or adjustment as process conditions change. Available in 2-in. and 3-in. pump sizes, the AirVantage is said to provide up to 50% energy savings compared to traditional AODD pumps.

Warren Rupp

www.idexcorp.com

CO₂ Pump is Designed for Supercritical Fluid Extraction



The self-contained liquid carbon dioxide SFT-10 pump can pressurize CO₂ up to 10,000 psi (69 MPa) at flowrates from 0.01 to 24.0 mL/min. These characteristics make the SFT-10 an ideal pump for use in supercritical fluid extraction, and for a variety of other high-pressure applications, including supercritical fluid reaction chemistry and chromatography. Using advanced Peltier chilling, the temperature of the pump head is maintained low enough to ensure that the CO₂ remains liquid. This makes it possible to achieve high pressure without the need for an external cooling bath.

Supercritical Fluid Technologies

www.supercriticalfluids.com

Fittings Now Available in Medical-Grade Polycarbonate

Already available in nylon and polypropylene, this company's recently expanded FitQuik product line now includes hose-barb-to-hose-barb tees, straights, elbows, Ys, and luers made from medical-grade polycarbonate material. The new polycarbonate fittings are ideal for any applications requiring biocompatibility, robustness, and heat resistance. The full line of fittings complements the company's quick-disconnect couplings to provide a large array of connector choices for

What's New

medical device manufacturers. The fittings are designed for tubing sizes from 1/16 to 3/8 in.

Colder Products Co.

www.colder.com/fittings

ENVIRONMENTAL, HEALTH AND SAFETY

Anti-Slip Products Improve Plant Safety



The High-Traction Glo Series of plant-safety products combines anti-slip surfaces with long-lasting, nontoxic, nonradioactive, photoluminescent pigments that glow in the dark. In addition to the original photoluminescent white, the line now includes two new safety colors and three fluorescent color options. Descriptive markings and personal protective equipment symbols can also be illuminated in the dark with the company's customizable Hi Glo safety messages that use a photoluminescent background. The company also offers Direct Gritting, a process by which customers supply their parts and Safeguard applies Hi-Traction anti-slip material directly to the specified area. Durable peel-and-stick anti-slip tapes are also available.

Safeguard Technology

www.safeguard-technology.com

Window System Provides Added Protection

A new window system from Insulgard is designed to protect buildings and facilities from hurricane- and tornado-strength winds, ballistic impacts, and other emergency and

security threats. It meets Federal Emergency Management Agency (FEMA) 361-2008 requirements for debris impact and UL 752 specifications for security-ballistic protection up to Level 8. The system combines Insulgard Security Products' TH600 aluminum architectural framing system, TOR-GARD glazing materials, and this company's Lexan sheet.

Insulgard Security Products, Div. of SABIC Innovative Plastics
www.insulgard.com

LABORATORY EQUIPMENT

Sample-Preparation Columns Simplify Extraction

The Isolute SLE+ supported sample-preparation columns for liquid extraction were developed in response to customer demand for a larger capacity and higher performance compared to existing columns. The new array format and a modular plate design provide cost savings and flexibility, and unlike labor-intensive liquid-liquid extraction and complicated solid-phase extraction methods, the Isolute SLE+ columns use a simple three-step methodology — load, wait five minutes, and elute. This allows clean extracts to be produced with a rapid, easy, reproducible workflow. The columns are suitable for use with sample volumes from 25 μ L to 10 mL.

Biotage

www.biotage.com

Particle-Analysis System is Designed for Minute Samples

The latest FlowCAM particle-imaging and analysis system processes small, sparse or otherwise limited samples in volumes as minute as 50 μ L. Its proprietary flow-control software and advanced syringe pump replace manual sample-handling and flow control setup with an automated process that enables the operator to load the sample, press start and walk away while the sample runs

unattended. The FlowCAM ensures that virtually the entire sample is properly presented to the flow cell for improved accuracy in the real-time detection, imaging, counting and measurement of particles and microorganisms. This makes it ideal for the analysis of parentals and other biopharmaceuticals, precious metals, explosive powders and other products where detecting every particle or cell present is of paramount importance and extra samples are not available for repeat analysis. For compliance with FDA Title 21 CFR Part 11, the FlowCAM automatically assigns a date/time stamp to all images and measurements and creates an audit trail for future review and analysis.

Fluid Imaging Technologies, Inc.
www.fluidimaging.com

OPERATIONS AND MAINTENANCE

Mobile Unit Combines Cleaning and Thawing Capabilities



Combining a trailer with a steam cleaner, pressure washer, or steam generator, these mobile, self-contained cleaning units have solid steel construction and ASME-certified welds, heavy-duty leaf-spring suspension, safety chains, a wiring harness with brake lights, adjustable-height ball hitch or lunette eye, a leveling jack, and more. The systems can be customized with an enclosed, insulated trailer. In addition to mobile cleaning, the units can be used to thaw valves, tanks and piping systems to get viscous contents moving.

Sioux Corp.

www.sioux.com