What's New

FLUIDS AND SOLIDS HANDLING

Mixer Generates Particles of Uniform Size

The HSM-703XC ultrahigh-shear mixer generates very fine dispersions and emulsions with narrow particle-size distributions. This improved model offers more-vigorous mixing, greater size reduction, and higher throughput than conventional rotor/stators and colloid mills. It is suitable for use with wax dispersions, emulsion adhesives, pigmented inks, polymer suspensions, nanodispersions, silicon emulsions, electrode pastes, lithium greases, and specialty coatings. Flow, temperature, and pressure monitoring of the barrier fluid have been added to the operator panel to supplement the existing controls for mixer speed, amperage, and power load.

Charles Ross & Son Co.
www.mixers.com

ENVIRONMENTAL, HEALTH, AND SAFETY

Breakaway Coupling Range Has Been Expanded

The TODO line of breakaway couplings includes a new model appropriate for harsh marine conditions, as well as standard couplings in additional sizes and materials. The Marine breakaway coupling is engineered to disconnect under straight-pull force. When a vessel moves too far away, the valve in each piece of equipment snaps shut to minimize spills and loss of product. The standard breakaway couplings are now available in a 4-in. stainless steel version, and 2-in. and 3-in. aluminum versions. The stainless steel coupling has a maximum working pressure of 25 bar, while the aluminum couplings can withstand 10 bar of pressure.

Emco Wheaton
www.emcowheaton.com

Protective Clothing Provides Warmth without Bulk

Workers in the oil and gas industries and other extreme work environments will benefit from the TNV Series of fire-retardant apparel. Available items include a winter parka, bib pants, and a hood that are ergonomically designed to provide warmth without bulk and allow easy movement for increased comfort and productivity. The garments are made to keep the wearer warm at temperatures as low as –22°F, and their water-repellent coating sheds precipitation. A bright orange color and retro-reflective bands ensure that workers are conspicuous in daytime and in low-light environments.

Honeywell
www.honeywell.com

Industrial Lights Are Energy Efficient

The Hazlux industrial lights utilize light-emitting diode (LED) technology for greater energy efficiency, longer lifespan, reduced maintenance, and a smaller footprint. Appropriate for hazardous environments, the lights are rated for extreme temperatures from –40°F to 131°F or –31°F to 104°F, depending on the model. They are constructed of high-strength, lightweight, corrosion-resistant aluminum with a baked, electrodeposited, pure-epoxy powder finish. All of the exposed hardware is corrosion-resistant stainless steel.

Thomas & Betts Corp.
www.tnb.com

INSTRUMENTATION

Enclosure Protects Field-Based Instruments

The Diabox 277 is an alternative to free-standing cabinets for environmental protection of field-based process instrumentation. The 23.6-in. by

29.5-in. by 23.6-in. glass-reinforced polyester (GRP) enclosure is larger than a typical instrument enclosure to allow users to work with gloved hands. A highly insulated option is available for extremely cold environments (down to –76°F). The lightweight but rigid enclosure can be mounted on a small-footprint pipe stand or clamped directly to process pipes. Typical applications include housing differential-pressure flowmeters and process transmitters at refineries, petrochemical, and chemical processing plants.
Intertec
www.intertec.info

Pyrometer Is Suitable for Oil and Gas Applications

The PULSAR 4 is an explosionproof infrared thermometer (pyrometer) intended for monitoring refractory and gas temperatures inside sulfur recovery units, sulfur burners, and thermal oxidizer furnaces used in oil and gas operations. It delivers temperature measurements with a precision of 0.3°C over the range of 350°C to 2,000°C. The Smart Flame Measurement Algorithm (Smart FMA) incorporated into the sensor accounts for flame transparency, which can affect temperature reading, to provide a more accurate view of the activity inside the vessel being monitored. Reliable monitoring helps to reduce downtime and increase profits.
LumaSense Technologies, Inc.
www.lumasenseinc.com

LABORATORY EQUIPMENT

Supercritical Fluid Extractor Offers Precision Control

The bench-top supercritical fluid extractor (SFE) Model SFT-110 builds upon the strengths of its predecessor, the SFT-100. A redesigned restrictor valve with an integrated micrometer allows for the precision flow control necessary for demanding applications. The high-pressure vessel is easily accessed through the removable oven lid and large side panel. A light on the pump module indicates proper operation of the Peltier precooler to ensure that carbon dioxide is maintained in the liquid state. Dual sapphire syringe-pump technology, integrated preheaters, and a precision flow controller enable control of temperature, pressure, and flowrate to achieve successful, reproducible extractions. This unit is suitable for extraction applications that are necessary for research or process development.
Supercritical Fluid Technologies
www.supercriticalfluids.com

Microscopes Are Enhanced for Flexibility and Robustness

Microscopes in the new BA410E series include enhanced optics, illumination, and staging to serve research, clinical analysis, and educational applications. Designed to be robust, economical, and easy to operate, they are suitable for multi-user facilities. The microscopes offer bright-field, phase-contrast, and polarized light and fluorescence to meet a range of needs. Labs that frequently switch between applications can benefit from the large-format stage and the mechanical stage, which accommodate a variety of sample sizes. A 30-W halogen lamp is part of the standard offering, but the microscope can also be fitted with a 50-W halogen or a 3-W LED lamp. Optional components are available for fluorescence and other low-light applications.
Motic
www.motic.com