



Product Digest

this month's topic **Fluids Handling**

Supercritical Fluid Extractor Facilitates Precise Flow Control



The benchtop supercritical fluid extractor (SFE) Model SFT-110 has a redesigned restrictor valve with an integrated micrometer for very precise flow control. A completely removable oven lid and large side panel allow easy access to the high-pressure vessel. A robust outlet from the restrictor ensures that operators will not damage the outlet tube when inserting it into the collection container. Dual syringe pump technology and integrated preheaters facilitate reproducible extractions. The SFT-110 is suitable for both research and process development applications. **Supercritical Fluid Technologies**
www.supercriticalfluids.com

Steam Trap Features a Self-Modulating Free Float

The durable J3S-X free-float steam trap is constructed entirely of stainless steel, and is suitable for use in the food industry, corrosive environments, and refineries and petrochemical plants. Its self-modulating free float delivers continu-



ous, smooth, low-velocity condensate discharge as process loads vary. The free float is rated for 1,740-psig hydraulic shock and has excellent resistance to water hammer. A unique rotational seating design enables simple cleaning, lowers maintenance costs, and eliminates concentrated wear to ensure a long service life. A thermostatic air vent enhances startup performance. The J3S-X trap is available in 1/2-in., 3/4-in., and 1-in. varieties.

TLV Corp.
www.tlv.com

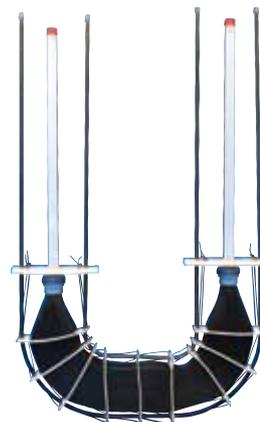
Rotary Airlock Valves Permit Full Access to Internals for Quick Cleaning



Quick-Clean Series rotary airlock valves feature the RotorRail design, which enables full access to the rotor and all internal surfaces of the housing without disassembly of the endplate. This design aids in regulatory standards compliance, reduces cleaning and maintenance time, and simplifies inspection. The Type 304 or 316 stainless steel valve housings are machined to precise tolerances using computer numerical control (CNC); the internal surfaces are polished to eliminate crevices and joints where contaminants could accumulate. The rotary airlock valves are available in sizes from 6 in. to 18 in., with a pressure differential up to 20 psig and a temperature tolerance of 750°F. Interior surface coating options include tungsten and hard chrome.

ACS Valves
www.acsvalves.com

Tubing Performs Better in Harsh Environments



Advances in resin design and performance give the Q-Series filled-fluoropolymer heat exchanger tubing increased resistance to blistering in extreme conditions. The nonstick tubing resists corrosion and fouling, extends heat exchanger service life, and minimizes the effects of stray currents in electroplating tanks because of its high electrical resistance. Improved heat-transfer properties allow it to be used in high-temperature and high-pressure applications. Advances have also been made in fill-particle size and shape, purity, and homogeneity. **AMETEK Fluoropolymer Products**
www.ametekfpp.com

Flowmeters Operate on Battery Power



Powered by three AA alkaline or lithium batteries, these battery-powered CoolPoint vortex-shedding flowmeters are designed for applications in which

there is no readily available electrical power source. The flowmeters have no moving parts, which eliminates the potential for clogging. They range in size from 1/4 in. to 2 in., with maximum flowrates of 4 to 200 gpm. They have a maximum pressure of 300 psi, and a temperature range of 32°F–210°F. Brass or Type 316 stainless steel varieties are offered, with fluoroelastomer (e.g., Viton) seals and polyvinylidene fluoride (PVDF) sensors.

Universal Flow Monitors, Inc.
www.flowmeters.com

Phosphorus Control System Lowers Chemical Costs



The RTC101 phosphorus control system provides real-time control of chemical dosing that helps maintain consistent phosphorus levels in effluent waters. Preprogrammed algorithms determine the exact loading of phosphorus in a facility's influent water, and the system quickly adjusts for loading changes, which reduces chemical costs. The RTC101 can be used for both open- (feedforward) and closed-loop (feedback) control of the chemical dose. The chemical feed pump is controlled via a 4–20-mA signal or a dry contact relay. If the phosphate or flow input is disrupted, the RTC101 P-Module automatically refers to previously created profiles to ensure that effluent compliance is maintained until the signal is restored.

Hach Co.
www.hach.com

Variable-Speed Drives Minimize Energy Consumption in Rotary-Screw Air Compressors



VSD S-energy lubricated rotary-screw air compressors are now available with variable-speed drives. Variable-speed drives allow the compressors to consume less electrical power and work at maximum efficiency when operating below 100% load. The models range from 15 to 60 hp, with capacities from 46.4 to 222 cfm and pressures ranging from 100 to 175 psig. The VSD S-energy compressors feature a high-efficiency centrifugal cooling fan and a low-pressure-drop air/fluid separation system to prevent energy loss.

Sullair Corp.
www.sullair.com

Membrane Module Separates Based on Permeability



The newest PermSelect silicone hollow-fiber membrane module, PDMSXA-1.0, is sized for flowrates ranging from 0.5 to 6.0 L/min and has a membrane surface area of 1.0 m². The membrane module is made of

self-supporting silicone hollow fibers with an outside diameter of only 300 μm, and wall thicknesses of 55 μm. It separates gases and liquids based on permeability differences, not pore size. Dense, nonporous hollow fibers reduce the risk of fouling. The maximum recommended operating temperature is 60°C, and the maximum transmembrane pressure is 45 psi. The module is suitable for gas separations and pervaporation, including air humidification and dehumidification, oxygen enrichment, methane purification, etc.

MedArray, Inc.
www.medarray.com

Disposable Manifold Assemblies Conform to Sterility Standards



These single-use tubing assemblies are now offered with a certificate of sterility assurance to the level of 10⁻⁶. Validated sterility is achieved through gamma irradiation. The tubing assemblies consist of molded manifolds and accessories such as filters, connectors, bags, and other components. They are suitable for batch filling and sampling in the manufacture of vaccines and other pharmaceuticals. The disposable systems are constructed of platinum-cured silicone or AdvantaFlex biopharmaceutical-grade thermoplastic elastomer (TPE).

NewAge Industries, Inc.
www.newageindustries.com