



BIOPROCESSING

Disposable Pre-Packed Chromatography Columns Reduce the Risk of Contamination

ProVance pre-packed Protein A columns are high-performance disposable chromatography columns for downstream purification. Biopharmaceutical companies are shifting toward single-use manufacturing technologies that provide greater portability and scalability, as well as increased biologics output. The disposable nature of these pre-packed columns offers flexibility, while reducing contamination risk at multiproduct facilities. The columns combine proprietary incompressible silica, cost-effective Protein A, and disposable hardware. They are designed for single-batch or single-campaign use, which eliminates the need for significant cleaning, validation, and long-term storage. Operating costs can be as much as 40–60% lower than those of columns that require time-consuming cleaning and packing steps. Columns are available in a range of sizes, including models for full-scale production according to good manufacturing practices (GMP). GMP columns come with documentation for regulatory support.

W. R. Grace and Co.

www.grace.com

INSTRUMENTATION

Heavy-Duty Safety Switches Are Maintenance-Free

These low-voltage, heavy-duty safety switches meet the requirements of demanding commercial and industrial service-entrance and motor-load applications. The 600-V, 200-kA rated switches use the same bodies as the manufacturer's popular rotary-style switches. Other attributes include touch-safe visible blades and fully enclosed operating mechanisms. All enclosures come with gaskets, no



sharp edges, and spacious interiors for easier and safer wiring and installation of additional accessories. Enclosures can be constructed of Type 1, 12, 3R, or 4X steel, as well as stainless steel. The switches range from 30 A to 1,200 A and are available in fused and nonfused models. Unlike standard switches that require regular lubrication, these safety switches are maintenance-free and are fully field-serviceable, with parts that are easy to replace. Additional features include two-color handles to indicate switch position, auxiliary contacts that can be mounted inside the switch mechanism, an optional viewing window, and fuse adapter kits to accommodate additional classes of fuses.

ABB

www.abb.com

Wireless Pressure Transmitter Provides More Data at a Lower Cost

The Rosemount 3051S MultiVariable wireless pressure transmitter delivers two process variables in a single instrument, which gives users greater insight into their process without increasing installation costs. Having fewer devices in a facility leads to simpler installation and maintenance routines that require less downtime



and are less expensive. With the ability to measure differential and static pressure in one device, pipe penetrations, impulse piping, and their associated costs can be reduced. The static pressure sensor is available as either a true or absolute gage. Measurements are instantly visible through a non-intrusive WirelessHART monitoring system. The transmitter enables more facility assets to be monitored with better than 99% reliability, and at a 40–60% lower cost than wired installations. Maintenance-free operation is ensured for ten years of service.

Emerson Process Management

www.emersonprocess.com

ENVIRONMENTAL, HEALTH, AND SAFETY

Wireless Mustering Tower Provides Real-Time Data on Employee Status

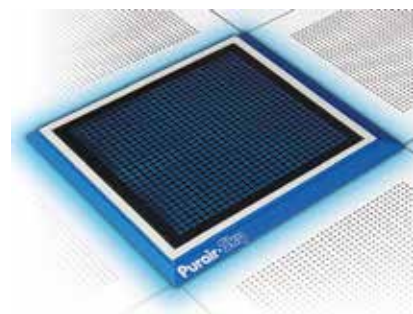
The ION mustering tower is a wireless, solar-powered, stationary access point for real-time personnel check-in to mustering areas during emergencies. The tower is equipped with a strobe light to visually notify personnel of the need to assemble. Employees and contractors are checked in

automatically as their identification badges are scanned by the tower's wireless reader, and their presence is immediately updated in the system. Real-time employee status reporting enhances communication and bolsters safety by reducing the time delay between the emergency alert and notification of personnel status. Tracking is provided through Wi-Fi, GPS, or RFID tags that integrate with the ION Dashboard.

Apprion, Inc.

www.apprion.com

Ceiling-Mounted Filtration System Requires No External Ducting



The Purair SKY ceiling-mounted filtration unit is designed to protect the laboratory environment and personnel in areas where hazardous substances are handled. The dynamic filtration chamber is secured with a sliding filter clamp that allows for quick filter exchange. An electrostatic prefilter increases the life of the filter by trapping additional contaminants before they enter the chamber. The standard unit comes with an epoxy-coated steel support frame, LED lighting, and wall-mounted controls. Other options include polypropylene construction for water testing and acid laboratories, and electronic gas-detection sensors. The filter can be run continuously and networked with other units in a single room. Because it does not need external ducting, the carbon filtration technology ensures regulatory compli-

ance while eliminating the cost and environmental impact of external ventilation. Airflow capacities of 300 cfm and 600 cfm are offered for SKY-24 and SKY-48, respectively.

Air Science

www.airscience.com

LABORATORY EQUIPMENT Platforms Adapt to a Changing Laboratory Setting



The Panorama product line consists of configurable laboratory casework platforms in a wide variety of sizes and styles — including wall, peninsula, island, and table setups; inset and overlay drawer and door options; wood or steel fronts; and fixed, suspended, or mobile units. The systems can be modified in the field to meet the changing demands of a state-of-the-art laboratory. The design allows for changes in external color and material, as well as reconfiguration of drawers, doors, and shelves by simple hand tools.

Hamilton Scientific

www.hamiltonscientific.com

COD Analyzer Provides Quick and Easy Water Sample Analysis

The Quick COD Analyzer Model HC-607 conducts chemical oxygen demand (COD) tests to indirectly measure the quantity of organic compounds in water samples. It provides fast, accurate analyses, and is easy to use with coulometric titration. Users are not required to perform multiple blank measurements because an improved electrode material speeds up and stabilizes measurement operations. A sliding electrode



holder simplifies electrode mounting and dismounting, allowing smoother operation. A countdown timer and bell let the user know the status of the oxidation. The analyzer is able to handle coulometric titration with colored samples. A secondary differential helps to detect the titration endpoint, which results in more-precise measurements. Features like an easy-to-read control panel, touch-key input, and dialog interface make the analyzer easy to use.

JM Science

www.jmscience.com

MATERIALS AND CHEMICALS Grease-Processing Aid Reduces Batch Times

Elevance Concert GC-350 is a renewable, high-performance grease-processing aid that manufacturers of lithium greases can use to reduce batch processing times by 25–35%. It also improves the solubility of the soap thickener, with no detrimental effect on grease yields. Unlike typical grease-thickening systems, which are suitable only for lithium salts of short- to medium-chain-length diacids, Concert GC-350 helps to incorporate long-chain lithium salts, which allows the process to run at a lower temperature. Reduced time and energy consumption translate into savings of money and labor. A low melt point allows for easy blending with existing formulas. By incorporating this additive into



existing formulations, manufacturers can increase the renewable content and enhance the functionality of the lubricants they produce.

Elevance Renewable Sciences, Inc.
www.elevance.com

Biodegradable Surfactant Is Produced by Microbe Technology

NatSurFact is a fully biodegradable surfactant that is designed for use in household cleaning and personal care products. It is said to be the first commercial application of rhamnolipids — naturally occurring organic biosurfactants produced by microbes (such as bacteria and yeast) that have no adverse effects on humans or the environment. Tests have shown

this biodegradable alternative to be more effective than traditional petroleum-based equivalents. It meets the demands of consumers for ecofriendly and sustainable products, and has potential applications in a range of industries, from personal care and household cleaning products to agriculture and chemical enhanced oil recovery (cEOR).

Logos Technologies
www.logos-technologies.com

Fluoropolymer Is Flame Resistant

Kynar 705 polyvinylidene fluoride (PVDF) is a high-performance flame-resistant homopolymer that will not combust in atmospheres containing less than 70% oxygen. Flame resis-

tance is achieved without additives and is confirmed by ASTM E84 (Standard Test Method for Surface Burning Characteristics of Building Materials) and the National Fire Protection Association's NFPA 262 (Standard Test Method for Flame Travel and Smoke of Wire and Cables for Use in Air-Handling Spaces). This material can be manufactured into nonwoven and multifilament products that require strong mechanical properties as well as chemical, flame, and smoke resistance. It is suitable for applications in chemical processing, industrial filtration, air and water filtration, woven textiles, electrical wire and cable jacketing, and fiber optics.

Arkema, Inc.
www.arkema.com

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