



FLUIDS/SOLIDS HANDLING

High-Temperature Diaphragm Is Reliable Over a Long Lifetime



The Saunders EX Endurance Diaphragm can be used in steam distribution and supply, sterile barrier, and block and bleed applications. It has a unique design that reduces the need to retighten fasteners after installation. It can withstand steam sterilization temperatures for extended periods of time, and the advanced seals lessen the risk of leakages into the atmosphere during long-term steam service. The diaphragm is suitable for use in bio and pharmaceutical processes.

Crane ChemPharma Flow Solutions

www.cranechempharma.com

Feeder/Airlock Ensures Optimal Bulk Density of Powders



The BT Series blow-through feeder/airlock optimizes the throughput and bulk density of hard-to-convey materi-

als such as fine powders and flakes. Its design reduces excess aeration of the material during conveying with an integrated vent port on the return side of the valve housing that automatically vents air leakage. The feeder/airlock is suitable for applications that require a pressure differential up to 20 psig. Housings are available in cast iron and Type 304 or 316 stainless steel, and have round flange sizes of either 8 in. or 10 in. The housing interior has adjustable rotor tips and is made of hard chrome.

ACS Valves

www.acsvalves.com

Blender's Internal Surface Promotes Full Discharge



The Model VB-10-316S sanitary Vee-Cone blender has internal surfaces free of baffles, shafts, and bearings for unobstructed material flow. The smooth internal design allows for complete discharge through a gate valve and rapid sanitization to prevent cross-contamination. With a capacity of 10 ft³, the blender typically produces uniform blends in 5 to 15 min. The blender provides a gentle tumbling action for dry and granular materials. An intensifier bar is available to impart the shear needed to

reduce soft agglomerates, and a liquid dispersion intensifier bar can be added to distribute liquids throughout the batch more thoroughly and rapidly. Other options include clean-in-place (CIP) systems, heating and cooling jackets, and construction to ASME pressure codes.

Munson Machinery Co.

www.munsonmachinery.com

Pressure Washer Withstands Oil Rig Extremes



The Hammerhead is an extreme-pressure washer designed for use in the harsh climates of offshore oil rigs. Installed on a mobile washing skid, this cleaning system provides pressures up to 3,000 psi and wash-water temperatures up to 200°F. It is equipped with a 17-hp, water-cooled diesel engine. Both the engine and burner are powered by a single 18-gal diesel fuel tank, and a meter monitors run time. The skid has an easy-access air choke valve to shut off the engine in an emergency. The stainless steel frame, panels, and nickel-plated pump heads are rustproof. A four-point lifting sling provides flexibility when moving the skid. The Hammerhead can be factory-mounted on a trailer or on a wheel kit for portability.

Hydro Tek Cleaning Equipment Manufacturing

www.hydrotek.us

Ball Valve's Locking System Prevents Back-Off



The P2 Series full-port true-union ball valve has a high-quality stem and ball support system with a locking handle. It features the Dual-Block system, which locks the union nuts and prevents back-off due to vibration or thermal cycling. Deep grooves, thick O-rings, and cushioned seats create strong seals at pressures up to 232 psi. The valve is available in polyvinyl chloride (PVC) or chlorinated polyvinyl chloride (CPVC) with national pipe thread (NPT) or glue-socket end connections. Electric, pneumatic, or manual actuators can be used.

Assured Automation
www.assuredautomation.com

Blender Features Interchangeable Agitators



The Model 42NSD-1S blender is a multipurpose unit equipped with interchangeable double ribbon and paddle agitators. With a maximum working

capacity of 1 ft³, it is suitable for most laboratory and pilot-scale blending applications. It has a discharge extruder assembly installed along the bottom of the trough to enhance mixing, eliminate dead zones, and enable 100% complete discharge. The blender is direct-driven by an inverter-ready gearmotor. Add-ons such as sight/charge ports, safety gratings, pneumatically operated covers and discharge valves, sanitary construction, heating and cooling jackets, and caster wheels are available.

Charles Ross & Son Co.
www.mixers.com

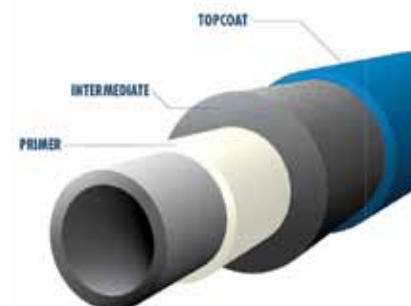
MATERIALS/CHEMICALS Adhesive Cures upon Exposure to UV Light



UV15-7 is an optically clear adhesive that produces non-yellowing, tough, and durable bonds. It has a fast cure rate, ranging from 5 s to 3 min upon exposure to a UV light source. Maximum UV absorption occurs in the range of 280–360 nm using a 200 W/in. medium-pressure mercury-vapor lamp. The one-component adhesive operates from –60°F to +300°F, and has a tensile strength exceeding 5,000 psi, a refractive index of 1.55, and a Shore D hardness over 70. It adheres to a wide variety of substrates, including glass, metals, plastics, polycarbonates, and polymer films.

Master Bond, Inc.
www.masterbond.com

Spray-On Coatings Provide Thermal Insulation



The Series 971 Aerolon acrylic and Series 975 Aerolon epoxy coatings use Enova Aerogel Technology to provide thermal insulation. They can be spray-applied to piping, tanks, valves, or other steel vessels in industrial facilities. The Aerolon formulation creates thick, single-coat film builds, which results in shorter application times. A single coat of Aerolon Epoxy can achieve a dry film thickness (DFT) of 160 mils (4 mm); Aerolon Acrylic can achieve a DFT up to 60 mils (1.5 mm). The coatings are water-based and contain very little volatile organic compounds (VOCs) to minimize environmental impact.

Tnemec Co.
www.tnemec.com

Adhesive Additive Reduces Application Viscosity

Cab-O-Sil Ultrabond 5760 is a surface-treated fumed silica that maximizes adhesive performance, particularly in epoxy formulations. Adhesives producers using this hydrophobic additive can reduce silica loading by 10–15%, which lowers the viscosity of the adhesive without compromising sag resistance. Less-viscous adhesives have faster application times, regardless of dispensing device. This additive may allow adhesives to replace traditional welding or riveting in vehicle construction.

Cabot Corp.
www.cabotcorp.com



Bio-Based Resin Has a Low Carbon Footprint

The bio-based resin Plexiglas Rnew is synthesized by combining Plexiglas and Ingeo biopolymer. The new resin does not compromise the scratch resistance, color acceptance, and surface aesthetics for which these two compounds are known. Plexiglas Rnew features low processing temperatures, high melt-flow properties, and a reduced carbon footprint. The resin can be tailored to meet the requirements of virtually any application; properties such as impact and chemical resistance can be specified.

Altuglas International
www.altuglasint.com

INSTRUMENTATION

Passivation Tester Produces Immediate Pass/Fail Signal

The Passi-Flash 3036 is a portable tester that verifies passivation in all grades of stainless steel. The instrument enables routine testing to verify that stainless steel vessels, piping, and equipment are free of iron particles that can contaminate products. In less than one second, the Passi-Flash produces a pass/fail signal and displays the passivation measurement in millivolts.



Built-in memory stores readings for future download to a spreadsheet. The pen-probe design allows one-handed operation, and pop-on/off testing nibs eliminate the hassle of manually applying test pads. The Passi-Flash has a large LCD display, mini-USB port, and rugged carrying case supplied with 80 testing nibs.

Koslow Scientific Co.
www.koslow.com

System Inhibits Arc Flashes



The TVOC-2, a new generation of the Arc Guard system, protects equipment from electrical arc flashes. An arc flash is a strong electrical current that passes through air when insulation between electrical conductors is no longer sufficient to contain the voltage between them. Arc flashes most commonly occur when an operator is working on switchgear. The Arc Guard system can detect an arc flash in less than one millisecond, and disconnect the power to the switchgear within 30 to 50 ms. Because this time lapse is significantly less than the time it takes to trip a circuit breaker, the risk of injuries is reduced.

ABB, Inc.
www.abb.com

ENGINEERING SERVICES

Company Expands Pipeline Inspection Services



The Process and Pipeline Services group assists operators in locating and repairing specific pipeline seam threats, such as hook cracks, lack of

fusion, and long, narrow axial corrosion. It recently added circumferential magnetic flux leakage (MFL) inspection technology with speed control and navigational capabilities to its offerings. MFL technology enables pipeline operators to identify anomalies in pipe seams to manage the risk associated with cracks in long welds. This service will be available for large-diameter pipelines in a wide variety of applications.

Baker Hughes
www.bakerhughes.com

BIOPROCESSING

Sterile Containers are Traceable via Serial Number



PharmaTrainer sterile single-use containers are suitable for the storage, freezing, and manipulation of biological solutions. The line of low-particulate, single-use bottles and carboys are injection-blow-molded and radiation sterilized. Available in sizes from 125 mL to 20 L, they are manufactured from polyethylene terephthalate (PET) or polycarbonate with high-density polyethylene (HDPE) closures. PharmaTrainer packaging has three layers of wrapping to facilitate delivery into cleanrooms, and the innermost layer is vacuum sealed to provide tamper evidence and complete sterility. Each container bears a unique serial number, batch number, expiration date, and machine-readable data matrix for individual container traceability.

Cellon
www.cellon.lu