



## What's New

### ENVIRONMENTAL, HEALTH AND SAFETY

#### Bifocal Safety Eyewear Brings Small Objects into Focus



The Conqueror MAG bifocal safety eyewear combines style, comfort, and safety. This bifocal version of the original Conqueror safety eyewear is appropriate for individuals who have trouble seeing and focusing on small items, such as equipment settings and small type on blueprints and schematics. Features such as a soft rubber nosepiece and ergonomically contoured temple tips ensure all-day wearability with no slipping. The one-piece polycarbonate wraparound lens comes in five diopter strengths (from 1.0 to 3.0) for the clear lens options and three diopter strengths (1.5, 2.0, and 2.5) for the gray lens style. By combining safety features with the clarity of a bifocal, the Conqueror MAG eliminates the need for the wearer to switch between standard safety glasses and reading glasses. This eyewear meets or exceeds industry safety standards.

**Gateway Safety, Inc.**

[www.gatewayafety.com](http://www.gatewayafety.com)

#### Qualitative Analysis Tube Rapidly Detects 15 Separate Substances in Gas Samples

Polytec-V qualitative analysis tubes sample air or gas for the presence of 15 separate substances — up to eight at a time — with one 30-sec test. Instead of the standard manifold-based detector tube design, this system con-

sists of a single tube capable of qualitative detection of multiple unknown substances, specifically: acetylene, carbon dioxide, carbon monoxide, chlorine, ethylene, hydrogen, hydrogen chloride, hydrogen cyanide, hydrogen phosphide, hydrogen sulfide, methyl mercaptan, nitrogen dioxide, phosgene, propylene, and sulfur dioxide. Emergency response teams will find this analysis tool particularly useful for its ability to separately detect phosgene and hydrogen cyanide, which may be present after the combustion of chlorinated products or plastics. Five tube options suitable for use with the manufacturer's gas sampling pumps are available.

**Gastec**

[www.gastec.co.jp](http://www.gastec.co.jp)

### MATERIALS AND CHEMICALS

#### Carbon-Fiber-Reinforced Polymer Is Designed to Replace Structural Metal



LUVOCOM SCF is a high-strength, impact-resistant, high-performance compound intended as a replacement for structural metals. The material consists of a polyamide base (PA6, PA66, PA46, or PPA) that is reinforced with carbon fiber. Compared to traditional carbon fiber compounds, this polymer boasts a 50% higher tensile strength and a 15% higher stiffness. With a lower specific gravity, it is lighter than metal or glass-reinforced polymers, which translates to energy savings when it is used in engineering applications. Other notable features include good

tribiological properties, electrical conduction, and a low coefficient of thermal expansion (CTE). The material can be processed on a standard injection-molding machine, but sufficient pressures, optimized injection speeds, and well-dimensioned gates need to be ensured to avoid excessive shear and maintain the product's properties. The materials are appropriate for such applications as dynamic parts in pumps and compressors, including vanes, impellers, and seals.

**Lehvoss North America**

[www.luvocom.com](http://www.luvocom.com)

### FLUIDS AND SOLIDS HANDLING

#### Level Controller Ensures Storage Bins Are Filled Appropriately



The Model CR Roto-Level Control offers protection from material overflow, empty bins, abnormal levels, and plugged chutes. A low-torque motor powers a paddle sensor that rotates continuously and freely until it detects the presence of material. Once surrounded by material, the paddle stops rotating. One or more microswitches are actuated, which either signals an audible or visual warning, or stops operation. To restore the paddle rotation, the bin material needs to be cleared and the microswitches de-actuated. The switches and motor are independent, which increases the life of the unit. The rugged cast aluminum housing comes in National

Electrical Manufacturers Association (NEMA) Type 4 dustproof and weathertight models, as well as NEMA Type 7 and Type 9 explosionproof models for hazardous environments. The shaft and paddle are constructed of stainless steel for corrosion resistance, and several paddle options are available. The unit can be top- or side-mounted, and can be utilized for either high- or low-level control applications. **Conveyor Components Co.**  
[www.conveyorcomponents.com](http://www.conveyorcomponents.com)

### High-Intensity Continuous Blender Can Produce Homogenous Blends in 20 Seconds



The HIM-306-SS high-intensity continuous blender imparts the sheer necessary for blending, homogenizing, de-dusting, and/or de-agglomerating dry ingredients, as well as mixing slurries, pastes, or other difficult-to-blend materials. Depending on material characteristics, it can achieve homogenous blends in as little as 20 sec residence time, and produce yields of up to 1,500 ft<sup>3</sup>/hr (42 m<sup>3</sup>/hr). The agitator — fitted with abrasion-resistant, coated, hardened stainless steel paddles and stuffing-box air-purge seals — is supported by pillow block bearings mounted externally at opposite ends of the cylindrical mixing chamber. For varying degrees of blending intensity, the agitator paddles can be adjusted over a 180-deg. range. A 50-hp (37-kW) motor, with a totally enclosed high-torque gear reducer and synchronous belt drive, rotates the agitator at variable speeds ranging from

120 to 600 rpm. Contents are blended within a mixing vessel surrounded by an insulated, high-pressure jacket. The chamber is constructed to ASME codes, can be insulated or cooled, and includes four injection ports. All material contact surfaces are constructed of corrosion-resistant Type 316 stainless steel; other offerings include Type 304 stainless steel, and carbon steel, among others.

**Munson Machinery Co.**  
[www.munsonmachinery.com](http://www.munsonmachinery.com)

### INSTRUMENTATION Carbon Dioxide Laser Markers Meet Production Targets



The Videojet 3330 (30-W) and Videojet 3130 (10-W) carbon dioxide laser marking systems efficiently print high-quality codes for pharmaceutical, beverage, food, and cosmetic products. The systems are easily integrated into any application, and can print both simple and complex codes, at a range of speeds, on an array of substrates. When speed is the ultimate priority, the dot-font mode can be utilized to mark up to 30% faster than the standard vector-font mode; speeds of up to 150,000 products per hour are possible. To easily integrate into the production line, the carbon dioxide lasers are available in 20,000 standard configurations. Three laser wavelength options enable the unit to mark on a variety of substrates, including polyethylene terephthalate (PET) bottles, plastic labels, laminated cartons, and other plastic materials common in consumer packaging. For applications that need to include traceable codes, the units can print high-quality alphanumeric and datamatrix markings. Several fume extraction systems and

filter options are available to remove smoke and particulates that could contaminate the laser. A detachable umbilical cable can be easily routed around existing machinery during installation. The air-cooled system and optimized power settings reduce heat and extend the life of the laser source by up to 45,000 hours.

**Videojet Technologies**  
[www.videojet.com](http://www.videojet.com)

### Data Acquisition and Datalogger System Controls Five Devices from a Single Interface



The M300 data acquisition and switch system provides accurate and repeatable measurements. The mainframe can hold up to five modules and 320 switch points, enabling applications ranging from multichannel scanning to switching and control. Compared to traditional front-panel interfaces, the graphical display of this unit makes scan configuration, monitoring, and storage significantly easier. Flexible multiplexing modules make it simple to configure multiple thermocouples, resistance temperature detectors (RTDs), and thermistors to increase throughput and ensure accuracy. Cold-junction compensation (CJC) references located on the terminals of the modules also improve the accuracy of temperature readings. Once the system has been configured, trend graphs of critical channels can be monitored on the display and alarms can be set. UltraAcquire Software is standard, and UltraAcquire Prosoftware is available for advanced datalogging applications. **Rigol Technologies U.S.A., Inc.**  
[www.rigolna.com](http://www.rigolna.com)