



## What's New

### FLUIDS AND SOLIDS HANDLING

#### Spray Fluidizer Provides Drying and Granulation in a Single Stage



The Niro Spray Fluidizer produces high-strength ceramic proppants in a continuous process. It offers combined drying and granulation in a single operation, and creates particles with consistent size distribution, bulk density, and moisture content. The particles are strong enough to resist crushing when exposed to high process pressures. The Niro Spray Fluidizer can achieve high thermal efficiencies, with a specific heat consumption as low as 700 kcal/kg of evaporated water. It has low process supervision costs, as it can be fully automated, and it has low space requirements.

**GEA Process Engineering, Inc.**

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

#### Sanitary Tote Dumper Complies with FDA and USDA Standards



The sanitary tote dumper is suitable for food processing, pharmaceutical processing, and plastics/medical device applications where compliance with U.S. Food and Drug Administra-

tion (FDA), U.S. Dept. of Agriculture (USDA), 3-A Sanitary Standards, Baking Industry Sanitation Standards Committee (BISSC), or other international standards is required. The sanitary tote dumper is constructed of Type 304-2b stainless steel with continuous-weld seams ground to a No. 4 finish. It has a fully enclosed hydraulic pump cabinet with a viewing window and toolless access for washing in place (WIP) capabilities. It has a capacity of 750–16,000 lb, and fully integrated automation and controls that are centralized to a menu-driven human-machine interface (HMI). Custom-designed discharge hoods are available.

**National Bulk Equipment, Inc.**

[www.nbe-inc.com](http://www.nbe-inc.com)

#### Dust Collector Skid Packages Offer Installation Ease



The Gold Series dust collection systems are now available in a skid package that speeds and simplifies installation. These dust collection skids incorporate high-efficiency cartridge dust collectors and all related equipment onto a single platform that is easy to transport and install. A typical skid package might include one or more dust collectors, active and/or passive explosion protection devices, doors for filter change-out, bag-in/bag-out (BIBO) HEPA filters, fans, controls, and interconnecting ductwork. The skids can be moved by forklift or crane and are equipped with

removable electrical and pipe connections. Even large units can typically be shipped in a container, which eliminates the time and cost to build special crating. Skid packages can be as large or small as needed to satisfy individual customer requirements.

**Camfil Air Pollution Control (APC)**

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

#### Tubing Comes in Two Grades and Hardness Levels



Suprene thermoplastic rubber (TPR) tubing is manufactured in two hardnesses — Shore 64A and 80A — and in two grades, FDA and industrial. The tubing is flexible and durable like rubber, but typically lighter weight and more formable. It provides excellent resistance to flex fatigue and withstands a wide range of temperatures, from –60°F to 275°F. It exhibits good compression characteristics and may be used as peristaltic pump tubing. The FDA-grade tubing is available in 64A and 80A hardnesses, and is suitable for most clean needs such as food and beverage or pharmaceutical applications. The industrial-grade tubing is available in 64A durometer and offers resistance to UV radiation, ozone, and other chemicals, and works well outdoors. Suprene tubing is stocked for same-day shipment in sizes ranging from 1/8-in. through 3/4-in. inner diameter.

**New Age Industries, Inc.**

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

### Enclosure for Particulate Monitor Allows Continuous Measurement



The Dust Detective environmental enclosure system allows the Microdust Pro to be safely used for measurement applications where particulate concentrations must be monitored for 8 h or more. The IP65-rated, waterproof, self-contained Dust Detective kit is optimized for field use. It comes fitted with a Casella Tuff sampling pump that will run continuously for up to 12 h in the field. The kit is able to record real-time data-logged average values and overall and maximum concentration levels. As an added security measure, the Dust Detective case can be secured with padlocks at the field location.

**Casella CEL, Inc.**

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

### Module Provides Humidification for Trace Gas Mixtures

The FlexStream Humidification Module adds variable levels of humidity to trace gas mixtures produced by the company's FlexStream system. Typically, the unit can raise the humidity of the gas to between 20% and 90% relative humidity. The FlexStream system uses Trace Source permeation tubes to create trace concentration gas mixtures by mixing the output from the permeation tube with clean dilution gas. Humidity is increased by splitting that dilution flow into two parts. One part remains dry, while the other part is saturated with water. The two parts are mixed and the proportion of wet to dry

gas determines the relative humidity. The FlexStream's internal computer sets both the dilution flow needed to achieve a specific concentration, and the proportion of wet gas needed to create the required humidity level.

**Kin-Tek Laboratories, Inc.**

[www.kin-tek.com](http://www.kin-tek.com)

### Feed Roller Features a High Thermal Load Capacity

The EL 24 elastomer feed roller is specifically designed to meet the demands of high-temperature, abrasive applications. It has a high thermal load capacity of up to 170°C and offers better frictional resistance and compression behavior than conventional elastomer feed rollers. The feed roller is silicon-free, which makes it suitable for the semiconductor industry. Through an available backup package, the feed roller may be exchanged for recoating within a few days.

**Maag**

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

## INSTRUMENTATION

### Mass Flowmeter Offers High Accuracy for Large Pipes



The ST102A air/gas mass flowmeter features a dual-element averaging system, which improves repeatability and accuracy for large-diameter pipes and ducts. The accuracy of flow measurement applications with line sizes greater than 12 in. can be greatly improved by averaging the flowrates of two elements, because it is often impractical to provide the required straight-run for a fully developed flow profile in large lines. Each flow ele-

ment in the ST102A can be individually configured for insertion length and process connection to allow installation flexibility. The elements can be remotely configured for easier access and visibility with the digital display and four-button user interface.

**Fluid Components International**

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

### System Improves Control of Water Oxygenation



The Oxydatorbox accurately controls oxygen levels in raw drinking water and is available in a range of sizes to suit industrial and commercial water improvement schemes. Water purity is an important factor in many chemical processes. The Oxydatorbox is designed to control the flow of oxygen, which is used for the oxidation of dissolved iron in the raw water. The system is available in three different sizes and can be constructed from glass-reinforced plastic (GRP), steel, or stainless steel, depending on the plant requirements. The air-pipe fittings are available in 1/4 in., 1/2 in., and 3/4 in., but other options are available on request. Options such as quick air-vent valves, power supplies, and a flowrate transmitter are also available.

**Bürkert Fluid Control Systems**

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

### MATERIALS AND CHEMICALS

#### Thermoplastic Meets Strict Requirements for Food Applications

PEEK 90GL30BLK EU is a glass-fiber-reinforced, high-flow thermoplastic for direct food contact applications. The product complies with provisions of the U.S. Food and Drug Administration, 3-A Sanitary Standards, and various other European Union regulations, including the EU Regulation 10/2011 Plastics Implementing Measure. The thermoplastic exhibits exceptional wear and chemical resistance, as well as dimensional stability and mechanical strength. It can withstand high-pressure steam up to 19 bar. Most importantly, the product ensures that the taste of food and beverages remains consistent.

The high-performance thermoplastic affords greater design flexibility than metals, and makes it possible to create more-complex components.

**Victrex Polymer Solutions**  
[www.victrex.com](http://www.victrex.com)

#### Two-Component Silicone Boasts Flame Retardancy



The MasterSil 156 two-part silicone now meets the requirements of the UL 94V-0 flammability standard, which guarantees flame-retardant proper-

ties. It offers flexibility and high-temperature resistance, has a one-to-one mix ratio by weight, and will not outgas while curing. It can withstand aggressive thermal cycling and resist vibration and shock. Formulated for potting, encapsulation, and sealing applications, MasterSil 156 is a competent electrical insulator with a low viscosity. It is thermally conductive and is rated for temperatures to 105°C in thicknesses of 1/4-in. and larger. The silicone bonds well to a wide variety of substrates, including metals, composites, glass, ceramics, and many rubbers and plastics. It is available in many standard packaging options, which range from 1/2-pint to 5-gal container kits. MasterSil 156 has a six-month shelf life at room temperature.

**Master Bond**  
[www.masterbond.com](http://www.masterbond.com)

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