Innovation at the Chem Show

Considered North America's largest process equipment and technology exposition, the 2007 Chem Show in New York, Oct. 30 through Nov. 1, will feature hundreds of innovative products and technologies from more than 600 leading suppliers. The following items offer a sneak peek at some of the many products to be exhibited.

Radar Level Transmitter

The Sitrans LR 250 radar level transmitter features “Process Intelligence” advanced signal processing. The two-wire device runs at 25 GHz and uses a 1.5- to 4-in. antenna for easy installation and minimal interference from vessel walls. A high-frequency narrow transmission pulse means the complete vessel capacity can be measured. The unit can be programmed with an infrared handheld programmer or remotely using Simatic PDM (Process Device Manager) software without opening the housing.

Siemens Energy & Automation Inc., Spring House, PA; 800-964-4114; www.sea.siemens.com/ia

Extreme Grade Gaskets

Several lines of gaskets to be displayed include the Extreme Grade line, which is available in four styles to fit a variety of applications, promises a 20 percent better seal, and is environmentally friendly since it lowers leakage rates and reduces emissions. For hostile environments, the leak-free, no-dilution Hydra-Just Sealing System can be used to replace mechanical seals in most industrial pumping applications, and it provides fair warning when the seal should be changed. The Multi-Swell self-loading general service gasket, which virtually eliminates insufficient load problems by creating its own load when it comes into contact with oil or water, is twice as soft as conventional gaskets, conforms to irregular flanges, and ensures tight seals with lower loads.
Garlock Sealing Technologies, Palmyra, NY; 800-448-6688; www.garlock.com

Ultrasonic Level Transmitters

The Rosemount 3100 Series ultrasonic level transmitters are for monitoring liquid

level in tanks and open air applications where long maintenance intervals are required. The units feature a non-contact sensor made from an inert material for corrosion resistance and low maintenance, while the integral or remote-mounted temperature sensor enables automatic corrections for changes in tank and tank free space temperature changes.

Emerson Process Management, Chanhassen, MN; 800-999-9307; www.emersonprocess.com/rosemount

Fluid Bed Processor With Air-Lift Device

Circular vibratory fluid bed dryers, coolers, and moisturizers are available with a new air-lift device that allows rapid disassembly, cleaning, and inspection of the fluid bed processing chamber. The unit requires only one air inlet and outlet and boasts fewer weld seams, reducing overall size and construction cost, especially when finished to 3A, FDA, and BISSC sanitary standards. The air-lift device is available on fluid bed processors in diameters from 18 to 84 in. (460 to 2,135 mm). At less than half the size and weight of rectangular fluid bed processors of equivalent capacity, this circular fluid bed unit allows all primary system components to be consolidated on a shippable frame.

Kason Corp., Millburn, NJ; 973-467-8140; www.kason.com

V-Port Ball Valves

Triac V Series control port ball valves boast precise and consistent flow control. These V-port valves are available with a 30-, 60-, or 90-degree V notch. The 30 V models allow for fine tapered control throughout the valve rotation while the 60 V and 90 V units offer a larger Cv in addition to controlled flow. Other V notch angles are available by special order.

A-T Controls Inc., Cincinnati, OH; 513-247-5465; www.a-tcontrols.com

Automatic Pycnometry System

The AccuPyc II 1340 gas displacement pycnometry system provides fast, fully automatic, and high-precision volume measurements and density calculations on a wide variety of materials. Most analyses take less than three minutes using a gas displacement technique to determine absolute density of powders, solids, and slurries having volumes from 0.01 to 350 cm^3. The instrument can be operated with a keypad or an optional Windows interface that provides reporting and archiving capability.

Micromeritics Instrument Corp., Norcross, GA; 770-662-3688; www.micromeritics.com

Flowmeter With No Moving Parts

The MFM220 2-in. magnetic-style full-port flowmeter features accuracy of approximately 1 percent from 30 to 300 gpm, with no moving parts to fail during use. It includes a digital readout in metric or English and displays overall total volume and batch total volume. The unit is self-calibrating and measures all viscous liquids. Powered by six AA batteries, it is made of glass-reinforced polypropylene and has a temperature range of 0&#176to 150&#176C.

Banjo Corp., Crawfordsville, IN; 765-362-7367; www.banjocorp.com

Vacuum Belt Filter

This continuous-indexing vacuum belt filter, known as the BF 3.5-21, is 3.5 meters wide with 73.5 $m^2$of filter area. Built for a custom order for two belt filters for filtration, washing, and drying of high-valued product in an alkaline slurry, it was supplied as a complete turnkey installation with pumps, tanks, four candle filters, piping, wiring and controls.
BHS-Filtration Inc., Charlotte, NC; 704-845-1190; www.bhs-filtration.com

Ash Analyzer

The Computrac MAX 5000 dry ash analyzer promises reliable results in a fraction of the time required by traditional test methods, which demand hours in a muffle furnace to oxidize sample material. The unit tests samples at temperatures up to 600&#176C, reproducing high-temperature test results while virtually eliminating the need for furnaces. A linked test option enables operators to measure moisture, solids, and ash in samples ranging in weight from 200 mg to 100 g.
Arizona Instrument LLC, Tempe, AZ; 800-528-7411; www.azic.com

Liquid Ring Vacuum Pumps

The NASH TC 8, TC 9, and TC 10 two-stage liquid ring vacuum pumps are designed to handle large amounts of liquid carryover without difficulty. The TC 8 has an overall capacity of 725 to 1,200 cfm/1,230 to 2,040 m^3/hr and vacuum to 0.8 in. HgA/27 mbar abs; the TC 9 has an overall capacity of 1,000 to 1,550 acfm/1,700 to 2,600 m^3/hr and vacuum to 0.8 in. HgA/27 mbar abs; and the TC 10 has an overall capacity of 1,100 to 1,900 acfm/1,800 to 3,400 m^3/hr and vacuum to 0.8 in. HgA/27 mbar abs.
Gardner Denver Nash, Trumbull, CT; 800-553-6274; www.GardnerDenverNash.com

Peristaltic Metering Pump

The Flex-Pro A3 peristaltic metering pump offers outputs to 33.3 gph/126 lph and output pressures to 125 psi/8.6 bar as well as automated ppm dosing and self priming against maximum line pressure. Bypass valves are not required, and the pump will not vapor lock or lose prime. Other features include a digital touchpad with menu-driven software and a VGA backlit LCD display of motor speed, input signal values, and service and alarm status.
Blue-White Industries, Huntington Beach, CA; 714-893-8529; www.bluwhite.com

Sensors With Patented Polymer

InPro 4260 Series pH sensors feature a patented polymer, the Xerolyt Extra, to provide high accuracy with extreme longevity under demanding situations. The electrode design includes an open junction, which solves the problem of diaphragm fouling that is often found in applications with sticky media and solutions with high-particle content or when sulfide-bearing solutions are present.
Mettler Toledo Ingold, Bedford, MA; 781-301-8808; www.mt.com/pro

Injection Metering Pump

The ProMus hydraulically actuated, high-pressure diaphragm chemical- injection metering pump offers flows to 101 gph and pressure up to 3,500 psi. Built to API-675 specifications, it is aimed at industrial process applications where accuracy and dependability are crucial. It’s available in SS, PVDF, and Hastelloy-C liquid ends.
ProMinent Fluid Controls Inc., Pittsburgh, PA; 412-787-2484; www.prominent.us

Tank Cleaning Monitor

SprayCheck TW works from the exterior to verify and validate the operation of tank cleaning systems with no modification of the tank. It promises highly sensitive monitoring and complete reporting on tank-washing nozzle performance. The system is based on an acoustic sensor linked to diagnostic software. The user glues or welds the monitoring device to the outside of the tank and wires it to a computer. Once a baseline reading of a cleaning cycle is taken, the system “listens” for any unacceptable variations from the baseline. Its diagnostic tools reveal changes in rotation speed and frequency, spray loss, nozzle clogging, and pressure variation.
Spraying Systems Co., Wheaton, IL; 630-665-5000; www.spray.com

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