

**Vapor Sorption Analyzer
Pinpoints Quality Control Issues**

Fluctuations in temperature and humidity can significantly influence a product's shelf life. The AquaLab vapor sorption analyzer (VSA) uses isotherm generation technology to track changes in the amount of moisture in a product. It combines dynamic and traditional isotherm methods to provide hundreds of data points based on water activity changes. These data are useful for shelf-life estimation, packaging calculations, temperature abuse modeling, component mixing models, and ultimately for improving quality control.

Decagon Devices, Inc.

Booth 1385

www.aqualab.com

**Sanitary Containers
are Easy to Drain**

The KTT-CTH-316L Series stainless steel containers have seamless interiors and exteriors for sanitary applications, and slanted bottoms to ensure complete drainage. When the lids are clamped into place, the containers are air- and water-tight due to a platinum-cured silicone gasket. Ethylene propylene diene monomer (EPDM), Viton fluoroelastomer, and Buna-N nitrile rubber gaskets are also available. The containers are offered in volumes from

35 to 200 L. Side handles are standard; stainless steel dollies are optional for enhanced portability.

Eagle Stainless Booth 2140

www.eaglestainless.com

**Respirator System
is Now NIOSH Approved**

The Sentinel XT loose-fitting powered air-purifying respirator (PAPR) has received the approval of the National Institute for Occupational Safety and Health (NIOSH). The respirator incorporates a brushless long-life motor, a lithium-polymer battery capable of delivering 12 hours of operation on a single charge, and a battery-life indicator gage. The battery and blower combined weigh only 2.2 lb. The XT features Sentinel Clear, a panoramic clear hood with a 320-deg. field of view. Retention clips securely attach the hood to the operator's suit.

ILC Dover Booth 1219

www.ilcdover.com

**Cartridges Provide
Sterile Filtration**

Suitable for small-scale biopharmaceutical applications, the Junior series of filtration cartridges is proven to



withstand several sterilization cycles by steam or autoclave. The product family consists of Biofil Junior cartridges, for clarification and bio-burden reduction; Fluorofil Junior cartridges, for sterile venting and wet-gas filtration; Microfil Junior cartridges, for prefiltration of cell cultures; and Polyfil Junior cartridges, for use in healthcare applications. All Junior cartridges are available in 2.5-in. and 5-in. lengths.

Porvair Filtration Group

Booth 3176

www.porvairfiltration.com

**Sanitary Mixers are Standardized
for Common Tank Volumes**

The Ph line of sanitary mixers includes more than 75 preconfigured models within the direct-drive PhD series, the gear-drive PhG series, and the gearmotor-agitator PhGM series. All mixer models are constructed of

Type 316 stainless steel and feature external dry-running mechanical seals with ethylene propylene diene monomer (EPDM) USP Class VI elastomers. A general arrangement drawing, parts list, wetted parts materials certification, and certificate of conformance are included with the mixers.

INDCO, Inc. Booth 3658
www.indco.com

Single-Use Tubing is Scalable to Process Requirements



BioFlex single-use tubing assemblies provide secure fluid paths and accommodate flowrates in excess of 100 L/min. They can be used to connect single-use and stainless-steel process equipment, and can integrate sterilizing-grade and clarification-grade capsule filters. BioFlex assemblies are provided sterile and ready for immediate use. They incorporate user-specified tubing material, connectors, and filters to eliminate onsite assembly concerns.

Meissner Filtration Products, Inc.
Booth 2817
www.meissner.com

Molded Connections Create Continuous Manifold Assemblies

Molded Tri-Clamp fittings, Bio-Closure container sealing systems, and connections such as wyes, tees, crosses, and reducers are now



available in AdvantaFlex bio-pharmaceutical-grade thermoplastic elastomer (TPE). When used with TPE tubing, this allows entire single-use molded manifold assemblies to be manufactured from TPE. Molded connections provide a crevice-free, seamless transition for continuous, unrestricted flow. All AdvantaFlex tubing assemblies are custom-made to specifications.

AdvantaPure Booth 3055
www.advantapure.com

Explosionproof Vacuum Minimizes Combustion Hazards

Part of a line of combustible-dust vacuums, the CFM 118/50EXP is designed to collect the dust and debris that often accumulate on floors and overhead areas in manufacturing facilities. It is CSA-certified explosionproof and dust-ignition-proof for use in Class

I, Group D and Class II, Groups E, F, and G environments. The vacuum is completely grounded, constructed of nonsparking Type 304 stainless steel, and equipped with conductive hose and accessories to eliminate static charge. It features a 13.2-gal



easy-empty collection container, an antistatic filter, and a downstream HEPA filter to capture debris as small as 0.3 μm .

Nilfisk Industrial Vacuum Div.
Booth 2623
www.NilfiskIndustrialVacuums.com

Device Measures Total Organic Carbon Levels



Erroneous measurements of total organic carbon (TOC) can impact manufacturing operations and lead to equipment deterioration. The AMI Line TOC analyzer is designed for pure and ultrapure water applications in the pharmaceutical and semiconductor industries. The device enables continuous measurement of TOC, or discrete-sample measurement with results in less than 2 min. The TOC analyzer features an automatic function test that can be performed daily, weekly, or on demand.

Swan Analytical USA
Booth 1960
www.swan-analytical-usa.com

System Rapidly Applies Container Outserts



The Model 277 Autosert outsert applicator attaches outserts to round, square, or rectangular pharmaceutical containers at high speeds. It handles outserts with dimensions of 0.875–2.5 in. (22–63 mm) wide by 1.125–4 in. (29–100 mm) high and up to 1.5 in. (38 mm) thick, at speeds up to 220 bottles/min. It uses hot-melt glue adhesion to secure heavy outserts.

NJM Packaging Booth 2463
www.njmpackaging.com

Portable Particle Counter is Designed for Hygienic Environments



The 3910 portable particle counter simultaneously measures six particle sizes at flowrates up to 50 L/min. The device features a large LCD touch screen, weighs only 14.2 lb, and has a small 8.1-in by 7.9-in. footprint. It is certified for ISO 21501-4 and 21 CFR Part 11 compliance.

Applications include cleanroom and bench verification, filter testing, facility certification, and food process investigations.

Kanomax USA Booth 2171
www.kanomax-usa.com

Software Upgrades Improve Powder Rheometer



Powder Rheometer Software Version 5 has several new features and capabilities to support the FT4 Powder Rheometer for optimization of powder-handling processes. The FT4 measures the density, compressibility, and permeability of bulk solids to quantify powder properties in terms of flow and processability. Software Version 5 has an intuitive graphic interface that displays real-time test information, and provides step-by-step guidance to assist new users during test selection and execution.

Freeman Technology Booth 2136
www.freemantech.co.uk

Syringe Assembly Machine Automatically Detects Defects

The Type 515 plunger-rod insertion machine can assemble up to 60 syringes per minute. Syringes with diameters ranging from 16 to 52 mm and heights from 30 to 130 mm are

manually fed into a chute, and then are transported through four different stations. At the first station, a plunger rod is threaded into a syringe. At the second station, a backstop is placed on the flange of each syringe. The third and fourth stations check the plunger rod and backstop integrity. Advanced controls allow the system to detect a defective product (such as excessive silicone in the syringe, undersized stoppers, or defective thread on the end of the rod), and abort the process. The defective part is tagged and automatically discharged to the reject station.

Bausch Advanced Technologies Booth 3063
www.bausch-group.com

Mini-Reactor Enables Lab-Scale Cell Culture



The DASbox mini-bioreactor system provides the full functionality of industry bioreactors for laboratories with limited space. Designed as a modular system with working volumes of 60–250 mL, DASbox gives users flexibility during bioprocess development. Up to 24 bioreactors can be linked in parallel, and only 3 in. of bench space per bioreactor is needed. The system features advanced temperature and agitation control, pH and dissolved oxygen monitoring, and multi-pump and gas-mixing modules. The system's software suite, DASware, enables remote access from other computers and mobile devices.

DASGIP BioTools, LLC Booth 3478
www.dasgip.com

Family of Weighing Systems Adds Mid-Range Model



Part of a range of checkweighers, the HC-Medium (HC-M) is an industrial PC-controlled conveyor belt system equipped to handle 250 pieces/min. Its stainless steel frame ensures stability at high conveyor speeds. The system includes a user-friendly, menu-driven operator interface with a 10.4-in. display. An array of sorting devices (pneumatic pusher, air blast, flap belt, etc.) is available to reject products with incorrect weight without disturbing production. The HC-M is equipped with electromagnetic force restoration (EMFR) weigh cells for repeatable measurement.

OCS Checkweighers, Inc.
Booth 2711

www.ocs-cw.com

Compact System Supports High-Purity Testing Needs

The multipurpose Heating/Pumping/Filtering (HPF) Station is used to increase fluid temperatures, recirculate deionized water, eliminate particles, and dispense precisely measured amounts of fluids. It is compatible with both corrosive acids and high-purity solutions, and features a micro-processor-based temperature controller for controlled heating and dispensing

of fluids. To ensure safe operation, the HPF station includes a liquid-level safety interlock, a pump-heater safety interlock, an over-temperature thermocouple on the heater, and a high-process-temperature limit switch. A scale, barcode, and ultraviolet (UV) light can be added to the unit.

Heateflex Corp. **Booth 1867**
www.heateflex.com

Wireless Sensing Nodes Feature Metal Housings



DX99 wireless nodes transmit data collected by sensors over a secure wireless network. They now have a compact metal housing rated for Class I, Div. 1 hazardous locations. DX99 nodes include an integrated battery for powering the radio transceiver and external sensors, and they can transmit and receive data at distances up to 3 miles. A built-in site survey tool allows the installer to determine the quality of the wireless link. Input options include discrete, analog, thermocouple, and resistance temperature detector (RTD) signals.

Banner Engineering
Booth 3189

www.bannerengineering.com

Barcode Verifier Validates Pharmaceutical Labels

The LVS 7500, a print-quality inspection and barcode verifier for thermal and thermal transfer printers, now features an enhanced design with simplified user interface and integration software. Some of its functions include: master-to-label comparison,



barcode verification, barcode validation, optical character recognition, optical character verification, field matching, and number/data validation. The software includes functions for automatic setup, job retrieval, and an alarm matrix with line and printer stop capabilities.

Label Vision Systems, Inc.
Booth 3081

www.lvs-inc.com

Company Offers Biotech Development Services



EAG Life Sciences is dedicated to supporting regulatory projects for pharmaceutical process and device development. The company provides current good manufacturing practice (cGMP) and good laboratory practice (GLP) contract analytical services, including combination drug-device testing, method development and validation, extractables and leachables studies, and process stability characterizations. Genotoxic impurities analyses, reference standard characterizations, and impurity/degradant analyses are also offered.

Evan Analytical Group
Booth 1241

www.eaglabs.com