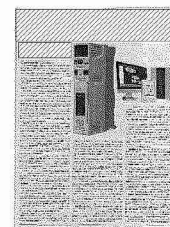


focus AHR Expo Post-Show Roundup

AHR Expo Showcases New HVACR Products

The NEWS was very busy at the AHR Expo in New York City, visiting as many booths as possible in search of new products. Below is a comprehensive list of everything we found on the show floor. Equipment is listed in alphabetical order across 10 categories.



IAQ + Ventilation

A.Q.C. Dust Collecting Systems Inc. featured its Miniflo™ stand-alone pleated single cartridge dust collector. The plug-and-play-type unit uses a high-efficiency filter cartridge said



to be ideal for handling welding fumes and fine-grinding dusts. It is self-cleaning with reverse air pulse and has a compact dust-storage bin. The unit has a sturdy, painted steel cabinet. The access door to the cartridge has quick-turn knobs; no tools are required.

activTek Environmental exhibited its AP3000 portable, self-contained air purification unit. The AP3000 uses Active-Pure (RCI) technology, needlepoint ionization, pulsating negative/positive ion field generator, and optional ozone generation. Primarily for use in office, classroom, and residential environments, the AP3000 provides coverage up to 3,000 square feet and includes a remote control.

Advantix Systems offered the DX Series, which includes multiple refrigeration and liquid desiccant circuits, advanced controls, and programming to allow independent and precise control of outlet temperature and absolute humidity. The technology uses a nontoxic lithium chloride solution to simultaneously remove moisture and cool air, allowing the equipment to achieve energy savings of up to 40 percent in commercial and industrial applications. The DX product line features a flexible modular design, which helps end users reach any sensible heat ratio and handle high air volumes.

Aeroseal LLC displayed its HomeSeal system for sealing

residential ductwork from the inside out. The Aeroseal process puts escaping air under pressure and causes polymer particles to stick first to the edges of a leak, then to each other until the leak is closed. The technology was developed within the indoor environment program at Lawrence Berkeley National Laboratory, whose IAQ scientists tested it. The Aeroseal duct-sealing system effectively seals residential homes' ductwork from the inside by using a UL-tested-and-approved sealing material. It's clean, safe, and guaranteed for 10 years in residential applications.

American Aldes Ventilation Corp. highlighted the ZRT-PDIL parallel damper in-line zone terminals, which are designed to introduce flexibility and dynamic control to central or exhaust ventilation systems. Used in both large and small systems, the ZRT-PDIL regulates ventilation air without the need for individual fans or variable air volume (VAV) terminal units. Each ZRT-PDIL is a two-position pressure independent terminal with a control damper to regulate high-limit on-demand airflow control and integral passive regulators for automatic air balancing of the minimum and maximum set points. This unique combination provides flexible control schemes without the need for expensive pneumatic, electronic, or direct digital control (DDC) systems.

American Ultraviolet released its commercial CK Series of ultraviolet lights. These UVC solutions are for on-coil HVAC installations. They feature 800-mA lamps, waterproof connections, clamps that mount to conduit, and up to eight ballasts may be mounted in a single enclosure. It includes LED lamp indication. Shatterproof lamps are optional as well as reflectors. They come in 18-, 24-, 36-, 48-, and 60-inch lamp sizes.

ACTO Rubber Products Inc. displayed the Owens Corning EcoTouch Insulation for meeting business requirements for energy efficiency and green building certifications. The insulation is composed of recycled content, has outstanding thermal and acoustical performance, and features a natural, bio-based material. It is the only fiberglass insulation product listed in the USDA BioPreferred Catalog, is made with 99 percent natural materials, is formaldehyde-free with biobased binder, is 57 percent recycled content, and is GREENGUARD Children & Schools certified.

Advanced Cooling Technologies Inc. showcased its ACT Heat Pipe Recovery Ventilators (ACT-HP-HRVs). Designed using high-performance, zero-maintenance, heat-pipe heat exchanger technology, they are built and tested to Air-Conditioning, Heating, and Refrigeration Institute (AHRI) standards. All units are manufactured for their specific application and help optimize summer and/or winter performance of HVAC systems by efficiently exchanging energy between the building exhaust airstream and the supply airstream to either pre-cool or pre-heat the air, depending on the season. The units feature passive, energy-saving technology; filtered intake and exhaust; individual fan speed controls; a low profile for drop-ceiling or raised-floor installations; optional anti-frost tilt control; and corrosion-resistant models.

Airus LLC introduced the Designer Series, which functions the same as a traditional Air Pear, but it's enclosed in a cylindrical housing for architecturally sensitive installations. The custom-made Designer Series is available with several motor/control options and can be custom painted to match the facility.

Airvector, a division of Alfa Mega Inc., displayed its ARCH Grilles & Registers, which combine convenience, performance, and appearance for high-end residential and commercial applications. A removable core is firmly held in place with strong clips to avoid rattling. The slick design has no apparent screws, and is ideal for side-wall installations. ARCH grilles are fabricated of high-quality aluminum extrusions for extra solidity and durability.

American Louver Co. introduced its aggregate return grilles and registers. The unique corner guards protect against damage, reducing returns and scrap. The grilles are

individually shrink-wrapped to keep the finish scratch-free and dust-free. They feature a consistent appearance, smooth and even finish around the frame, industry-standard "British White" finish, squared and centered cells for a balanced and uniform appearance, and sealed corner seams.

Best Living Systems LLC exhibited its MCI SynAIRg-PURE HVAC probe for improving IAQ by dealing with pollutants in a proactive way. The unique probe is placed in both the return and supply plenums to provide aggressive, clustered ion mild oxidizers and multi-cluster ions in a synergistic way, distributed throughout the area. The trademarked multi-cluster ionization (MCI) technology represents the newest generation of proactive air purification, is completely safe, and effectively destroys mold, mildew, bacteria, viruses, odors, volatile organic compounds (VOCs), and the odors associated with them in the air and on surfaces. When used as part of a holistic solutions protocol, MCI provides a comfortable indoor air environment. The synergistic probe utilizes photo-catalytic oxidation (PCO) with a no-ozone option, dielectric barrier ionization (DBI). It is easily installed in the plenum and plugged into a standard 110-V/120-V outlet, or hard-wired for continuous use.

BlueShield Technologies displayed its Bio-Defender Predator Series HVAC evaporator coil and plenum kit. The kits eliminate air pollutants, noxious odors, and toxic volatile organic compounds (VOCs). Other features include solid state technology; low-voltage LED technology; no harmful mercury, UV, or ozone output; a thin profile; and a two-year warranty. BlueShield also released its Bio-Bloc 1400 PCO advanced indoor defense system. The Bio-Bloc air purification system is placed in the duct or plenum and features eight layers of a TiO₂-coated PCO plate matrix system that covers more than 9 square feet of contact surface. The system is applicable for passive and forced-air configurations and is noted to kill a broad spectrum of bacteria, viruses, molds, and fungal spores.

Carrier Enterprise LLC unveiled the Air Knight Generation II air purification solution, which offers improved IAQ and greater HVAC efficiency, as well as easier installation and maintenance. Central to the design of the Air Knight products is the PX5 Quint MetallicMatrix Core, which provides substantial benefits, including a quicker reaction process that forms hydroxyl radicals and a superoxide ion, as well as an enhanced ability to convert nitric oxide into nitrogen and oxygen. Air Knight Generation II also comes with an IC chip design in the power supply, which allows for digital control of the lamp current.

Centrotherm Eco Systems showcased its InnoFlue® vent system, which is manufactured from environmentally friendly polypropylene. The polypropylene technology is warranted for sustained flue gases

up to 248°F (120°C), providing enhanced performance properties when compared to polyvinyl chloride (PVC) and chlorinated polyvinyl chloride (CPVC) technology. Designed as a vent system, not a DWV product, InnoFlue offers intuitive components such as test ports, condensate drains, and siphons. These components eliminate the need to field-modify your vent system in order to analyze combustion gas or simply to remove excess condensate from the system. The InnoFlue product offering includes single-wall, flexible, and concentric vent-system components. These interchangeable components allow users to switch between component types providing a solution for nearly every type of structure.

CleanAlert LLC introduced the Wi-Fi-enabled FILTER-SCAN® WiFi Air Filter Monitor and Notification System. The system notifies contractors and building operators via local, text, and email alerts when a filter needs servicing by measuring differential pressure changes in an HVAC system. By taking the guesswork out of servicing filters, the FILTER-SCAN WiFi will optimize filter life while helping HVAC contractors, building owners, and facility managers avoid higher energy bills, compromised air quality, and costly repairs. Using patented differential pressure methods to actively gauge a filter's status, the monitor is easy to install and operate; functions with a wide variety of filters; and is compatible with

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most residential, commercial, and industrial HVAC systems, including units with single- or multi-speed blowers and most variable air volume (VAV) systems. An optional wired output provides signaling to a remote building automation system (BAS) controller.

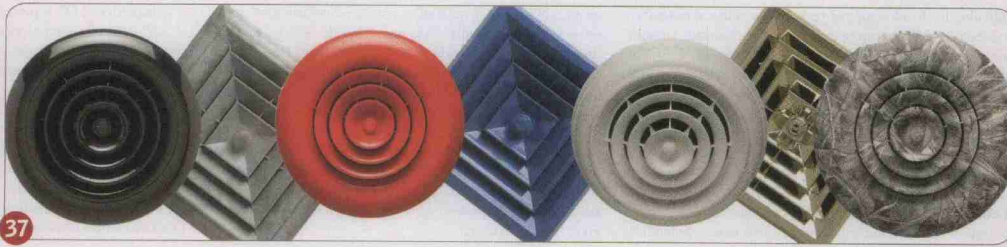
Continental Fan Mfg. Inc. displayed the MFT Mixed Flow in-line duct fans. They feature a UV-resistant plastic housing and a two-speed motor. The fans are available in 4-12-inch duct diameters with airflow capacities up to 1,051 cfm. MFT-S mixed flow in-line fans feature a specially designed impeller and housing with an aerodynamic diffuser. Also displayed were the ARI Radon fans, which were designed to help mitigate radon gas from a home. According to the company, installing an ARI fan in the attic or on the exterior of the home will safely exhaust the radon. The fans incorporate a UV- and corrosion-resistant plastic housing, and are available in duct diameters from 4-8 inches. The airflow capacity is up to 583 cfm.

Delta Products Corp. showed its BreezSignature G2 Series and BreezSmart Series ventilation fans. The Delta BreezSignature G2 boasts less than 0.3 sones level at 110 cfm and enhanced airflow at 0.25 inches of static pressure. The second generation of the series adds new features including a removable motor, an LED indicator light, and a fresh grille design. The unit's dc brushless motor is designed for long life, low noise, and low power consumption. The BreezSmart Series incorporates Delta's DC brushless motor with adjustable humidity and speed, motion sensing, and a delay timer. The unit delivers 130 and 150 cfm at less than 0.3 sones, while consuming less than 12 W of power. The unit exceeds Energy Star energy-efficiency requirements by 300 percent.

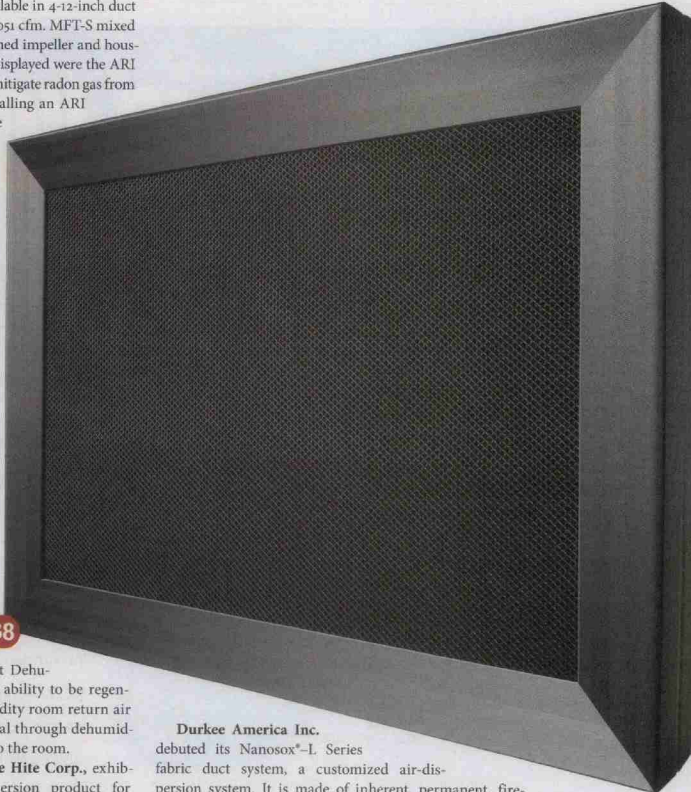
Desiccant Rotors Intl. Inc. introduced its G3MA Passive Desiccant Dehumidification Wheel. The wheel has the ability to be regenerated with the 50 percent relative humidity room return air allowing for substantial moisture removal through dehumidification of the fresh air being supplied to the room.

DuctSox Corp., a subsidiary of Rite Hite Corp., exhibited the KitchenSox™ textile air-dispersion product for commercial and industrial kitchens, and food preparation environments. According to the company, air is evenly dispersed through highly porous fabric, eliminating drafts and condensation. The fabric panels, which come in two options, DT and Rx, can be removed for laundering. The company also showed its OvalSox product. The fabric ductwork in an oval shape is patent pending and produces minimal sag when the air-handling unit is off. Applications include areas with low head room or immovable obstructions. It comes with a five-year warranty for most applications.

37 Dura-Tite Systems LLC introduced the all-in-one Quick Connect Register Boot Ceiling Diffuser Combo. The 12-inch ceiling diffusers are available now in square or round models. Custom graphic, wood grains, colors, and crown-molding-style diffusers will be introduced soon. The boots are plenum-rated (UL 2043) and meet the Air Diffusion Council's recommended 2-inch collar length. These can be used for residential, commercial, new construction, and retrofit installs. The Register Boot comes with the DuraTite Quick-Zips to attach to the ceiling, no matter the thickness. The Easy Attach Knob feature allows you to attach the diffuser to the boot without any tools.



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Durkee America Inc. debuted its Nanosox™-L Series fabric duct system, a customized air-dispersion system. It is made of inherent, permanent, fire-retardant fabric with reliable and stable properties like high pressure resistance, tensile strength, stable permeability, and more. It offers more even air distribution and energy efficiency. Four models are available, including the L/General, L-M/Antimicrobial, L-S/Antistatic, and LOO/Non-permeable.

38 Dynamic Air Quality Solutions exhibited its Activated Carbon Matrix (ACM) filtration system. The patented design utilizes an activated carbon/ceramic honeycomb matrix that features unrestricted air channels to provide a pathway for air to flow with low resistance. Because the carbon and ceramic are baked for long periods at an extremely high temperature, they are tightly bound together, eliminating dust shedding and the need for downstream filters, the company said. The system provides a purified air cleaning solution to prevent corrosion of valuable electronic equipment in process industries.

Foster, an HP Fuller Construction Products Inc. company, showed its Full Defense Fungicidal Protective Coating for shielding against mold and mildew. The product is ideal for residential and commercial mold-remediation projects and is an Environmental Protection Agency (EPA)-registered coating that kills residual mold and mildew and protects surfaces from mold regrowth. Its low-viscosity, high-solids formulation pro-

vides extended coverage with excellent hiding properties in one easy application. The product contributes to Leadership in Energy and Environmental Design (LEED) EQ Credit 4.2 and features a 10-year limited warranty.

Frescaire Espana S.L. debuted its Model 1500 and Model 5000 systems. Both units are air conditioning systems based on dew point cooling using water as a refrigerant. The water does not come into contact with supplied air during the cooling system, making it an indirect evaporative system. The hygroscopic material is humidified with water using sprinklers situated on top of the cooler. The only moving component in the system is one fan. Temperatures below wet bulb temperatures are obtained at minimal cost. The Model 1500 discharges processed air at 700 cubic meters per hour and consumes 8 liters of water per hour. Model 5000 discharges processed air at 7,500 cubic meters per hour and consumes 30 liters of water per hour.

Fresh-Aire UV displayed its free, on-site ultraviolet germicidal irradiation (UVGI) system demonstration trial and analysis for commercial/industrial HVAC a/c systems used in health care, hospitality, industry, education, and office buildings. The program is available to any HVACR contractor or their building owner clients in the continental U.S. The system is installed via a magnetically mounted assembly and plug-in power supply. Eligible buildings must have more than one air-handling unit or at least 10,000 cfm.

Heatex America exhibited the Model H2 crossflow air-to-air heat exchanger. It is designed with the best performance within crossflow heat recovery and features a new surface pattern, optimized bar spacers, a smaller frame and larger plate surface, lower pressure loss, higher efficiency, improved tightness, and higher differential pressure.

Heating & Cooling Products Mfg. Co. offered its Total-Seal transverse sealed system. The fully sealed pipe and fitting system is sealed on the transverse and longitudinal seams and exceeds Sheet Metal and Air Conditioning Contractors' National Association (SMACNA) Class 3 leakage standards. It eliminates the need for tape or mastic sealant and is available for residential and commercial applications.

Howden Group Ltd. showcased its FPX ultra low-noise fan, which has a specially shaped aerofoil design to meet the demands for low-noise applications combined with high efficiency. The FPX is available in a diameter range of 28-108 inches (711-2,743 mm), which makes it suitable for various cooling and ventilation applications. It has a tapered busing connection for quick and easy assembly. Optionally, the FPX can be equipped with blade leading-edge protection for use in wet cooling applications.

Industrial Plastic Fan LLC introduced its corrosion-resistant polypropylene fans. The plastic fans provide years of

maintenance-free use against the harshest chemicals. IPF fan casings are thermoformed and automatically welded. The impellers are injection-molded with 20 forward curved blades. Precision design and fabrication make for whisper-quiet fans. The impeller is mounted directly on the motor shaft. Accessories such as flex connectors, flanges, reducers, and vibration isolators are available options.

Intellinox Inc. launched its Ecoazur® demand-controlled kitchen ventilation system for the U.S. market. The company said that, with this next-generation system, ventilation modulates according to real-time demand. No user intervention is required. It offers a user-friendly interface and is compatible with every existing hood type. The system is said to provide energy savings of up to 50 percent and a return on investment from one to three years.

Isil Engineering Corp. displayed its ISILTAK connection device, which connects flexible duct to the main steel ventilation duct, the connection points, the fans, and the air-handling units. The ISILTAK connects without needing any assistive equipment, like aluminum tape or cable ties. The flexible duct connection to the ISILTAK is airtight, powerful, easy to use, economical, and aesthetically pleasing.

KBE Air Movement Products showcased its Electro Thermal Link reset switch smoke damper. The damper is a multi-purpose, dual-responsive fusible link that reacts (melts) when subjected to local heat of 165° F, exactly the same as an ordinary link, or when external electrical impulse of low power occurs for a short duration. The unit is specifically designed to substitute for ordinary links and/or other actuators in existing locations and in new installations of fire dampers and doors, fire-and-smoke roof hatches, fire extinguishers, sprinklers, smoke towers, and gas or chemical automatic release systems.

Lifebreath, a division of Aria Brands Inc., displayed its compact 120 ERV, which is designed for high-rise condos, apartments, and townhomes. Its variable-speed operation ensures that each suite has an efficient exchange of stale indoor air with healthy, fresh outdoor air. A new generation of HRVs was also introduced, including the 205 MAX, RNC 205, 100 ECM, 155 MAX, and RNC 155. These HRVs feature a patented, durable, efficient aluminum HEX core, which provides a counterflow design that maximizes airflow with heat-transfer characteristics.

Melink Corp. exhibited its Intelli-Hood® kitchen ventilation controls. The unit's optic sensors allow lower minimum speeds for greater energy savings and ensure robust capture and containment of all smoke. Intelligent algorithms provide automatic daily calibration. Its plug-and-play cables eliminate installation problems on new and retrofitted hoods. The system controller can control more than 30 hoods with a hood controller on each unit.

Michell Instruments Inc. showcased its MDM300 and MDM300 I.S. high-speed portable dew point hygrometers, which offer rapid spot-check measurements of dew point or moisture content in many applications, including compressed air, natural gas, and high-voltage switchgear quench gas. This lightweight ATEX-, IECEx-, FM-, CSA- and GOST-certified product allows multiple measurements per working hour. A hard-wearing but ergonomic case and an easy-to-use interface allow for comfortable operation in the toughest industrial environments.

Multifan, a branch of Vostermans Ventilation Co., exhibited its Fiberglass Cone Fan 54®, a fiberglass cone fan that features three-blade airfoil fiberglass-reinforced impellers. All internal hardware is made of stainless steel and aluminum to ensure maximum corrosion protection. It features a maximum ambient temperature of 104° F and is equipped with a belt-driven motor that is adjustable and removable by one person. Fans are available with one- and three-phase motors — 50 and 60 Hz. Five-blade fiberglass-reinforced impellers are also available.

Pal Systems Intl. displayed its Pal System line of components, accessories, professional hand tools, automatic machinery, specialized training programs for duct manufacturers, software, and technical support for its Pal ductwork. Pal ductwork is environmentally friendly chlorofluorocarbon (CFC)-free, resistant to fungi, space-saving, energy-efficient, and strong.



39 Panasonic Corp. demonstrated the WhisperGreen Select™ vent fan with Pick-A-Flow (50, 80, and 110 cfm) technology, which offers the ability to select the required airflow with a flip of a switch. A set of four unique Plug 'N Play modules allow the fan to be customized further with Multi-Speed Operation, Motion Sensor, Condensation Sensor, and Automatic LED Night Light options. The company also highlighted its EcoVent™ with Veri-Boost™ vent fan, which

helps builders meet green-building airflow requirements. This economically priced, easy-to-install, Energy Star-rated vent fan incorporates Veri-Boost to ensure that designed airflow is achieved to help meet ASHRAE 62.2, Energy Star 3.0 for Homes, Leadership in Energy & Environmental Design (LEED) for Homes, CA Title 24, CalGreen, and most green building programs, without compromising the look and style of any bathroom.

Plastec Ventilation Inc. introduced the Plastec 50 utility blower, which offers ease of installation, low noise level, and durability. The blower features UV-treated polypropylene construction, a backward-inclined polypropylene impeller, and a frequency inverter. The housing includes a protection plate around the housing and a metal stand.

PoolPak Intl. LLC highlighted the RoofPak, an all-in-one pool dehumidification system that includes an integral air-cooled condenser and choice of integral gas furnace or electric heater. RoofPak is a complete packaged unit that is generally less expensive than installing an individual dehumidifier, air-cooled condenser, and heating system. The unit is specifiable over a wide range of popular applications, and is available in the 3500 Series with a 10-ton capacity and the 4000 Series with a 12-ton capacity. These sizes are ideally suited for applications having a surface area between 1,200-2,500 square feet.

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Punker LLC showed its Series R63 D2 backward-curved fan wheel. For free-blowing operation, it is optimized with regard to noise and performance. It is available in steel and aluminum, in diameters ranging from 250-1,000 mm, and a variety of widths. Applications include plug fans and air-handling units, as well as industrial applications.

PureAir Filtration displayed its Electronic Adsorbent Bed Monitor, which improves odor control reliability and reduces surprise odor breakthrough by allowing remote media testing, so air stays odor-free. The device measures carbon/adsorbent media, transmits results wirelessly or through a wired connection, and provides alerts when media consumption is reaching capacity.

40 RenewAir LLC launched the LE Series large format ERV models. Featuring new internal airflow geometry, the LE Series is currently available for airflows up to 8,800 cfm and offers higher airflow and static pressure capabilities with lower blower horsepower, sound levels, and cost than previous models. The LE Series, which is available in both indoor and rooftop versions, can also be ordered as two easy-to-assemble modules, allowing shipment in enclosed trailers and greatly simplified site handling.

Rotobrush Intl. LLC introduced its RotoShield products for eliminating mold and odor in household ducts. The biocidal chemical in the Moldfighter kit is Environmental Protection Agency (EPA)-certified and does not require residents to leave their homes during the application process. Independent lab tests have shown that the BBJ Mold Control product kills 99.88 percent of aspergillum spores.

S&P USA Ventilation Systems LLC displayed its Premium Choice Series of ventilation fans, which provides flexibility to create the proper bath ventilation system needed for each application. These fans come with standard grilles, with an option of a lighted grille or a motion-sensing grille, and speed and humidity controls can be chosen separately. With plug-and-play flexibility, these fans can even be changed after installation.

41 Sanuvox Technologies Inc. featured its SR+ In-Duct UV Air Treatment System, which is designed to treat residential applications up to 2,000 square feet. The SR+ employs a proprietary UV process to effectively destroy airborne viruses, bacteria, mold, chemicals, volatile organic compounds (VOCs), and odors that continually circulate within the home's HVAC system and building in concentration within the home's envelope. Installation requires approximately 20 minutes, as the plug-and-play unit relies on a microprocessor-controlled sensor for automatic operation.

Semco LLC, a Flakt Woods Co., displayed its Unitary Wheel Cassette (UWC), which recovers both sensible and latent energy. The performance edge is a result of UWC's transfer core. The honeycomb-like media utilizes an aluminum substrate coated with a fast-acting desiccant. A ceramic coating on the rotor gives extremely high corrosion protection and eliminates the need for cleaning. The UWC provides airflow capacities that range from 700-15,000 cfm. The wheel is independently certified in accordance with ASHRAE 94-1991 and provides a solution to ASHRAE Standard 62, "Ventilation for Acceptable Indoor Air Quality."

Seresco Technologies Inc. showed the NV Series indoor swimming pool ventilation product line. Available in 4,000-70,000-cfm sizes, the NV Series uses Glycol Run-Around Loop (GRAL) heat recovery. The GRAL's reduced fan energy makes the NV Series more efficient in terms of power requirements.

Seungil Sentrol Co. Ltd. displayed its Electrode Steam Humidifiers. The products are user-friendly and feature various capacities up to 180 kg per hour. They include flexible and durable steam hose, external 4-20mA/0-10-V signal, and a drain pump applied/manual drain lever.

Smart Fog Inc. offered its ES100-1 and ES100-2 Series' Smart Fog Humidifiers. The unit is advertised as being free of particles.



When water evaporates, nothing other than pure humidity remains. The unit requires no drains, pumps, or fans. It can be wall-mounted or inserted into ducts. The ES100 consumes approximately 0.2 kW, and the ES100-2 about 0.4 kW of energy. Smart Fog's droplet size measures 2-4 microns and takes approximately 12,001-25,400 seconds for a particle to fall 10 feet.

Stelpro displayed its Heating Boot duct heater. The Heating Boot is installed at the outlet of air ducts to heat the air coming from the central system. It allows room temperature in a home to be adjusted on a room-by-room basis, so as to be able to maintain a lower temperature in unused rooms and thereby save on heating costs. There are three models that will fill the most common assembly layouts in residential installations. It has a galvanized steel finish and includes a 10-year warranty for the elements and a five-year warranty for other components.

Strobic Air Corp., a CECO Environmental company, introduced its Mono-Stack fume-exhaust fan featuring wheel sizes ranging from 18-36 inches, airflow capacities up to 24,000 cfm, and an available heat recovery option. The efficient nozzle design features high-velocity flume dispersion, and the

unit includes premium efficient variable-frequency drive (VFD) duty motors.

Sunroad Co. Ltd. displayed the Electret Sock Filter Sani Filter, a filter that collects 99 percent or more of dust of 0.5-1.0-micron diameter. They can be easily changed by swapping filters and don't require an engineer to replace.

Top Product Innovations showed its Series C6.0, C10.0, and R6.0 Cold Plasma Generators. The cold plasma generators (CPG) create electrically charged air molecules, known as ions, to remove airborne mold, virus, bacteria, volatile organic compounds (VOCs), pathogens, and allergens from the air within your home. Each unit produces no detachable ozone, features no replacement parts, and helps to eliminate static electricity. The C6.0 and C10.0 units are 24 vac, needlepoint bi-polar ionized with airflow capacities of up to 6,000 cfm for the C6.0, and 10,000 cfm for the C10.0. The R6.0 features airflow capacities up to 6,000 cfm and a carbon-resin electrode. Its mounting box consists of ABS UL 94 plastic.

Tri-Dim Filter Corp. highlighted its Ultra Green MERV 10 reusable filter. The patent-pending filter is cleanable, highly efficient, and has low resistance. It can be used for up to two years with proper cleaning. It features a synthetic media with a metal frame.

TVM Building Products demonstrated its T-rap return air panning. T-rap is an alternative to sheet metal when constructing return air ducts between joists and stud cavities. The product consists of corrugated insulation faced with aluminum. It helps significantly reduce duct noise. It staples easily and quickly to floor joists and stud cavities, saving on labor costs and provides a high-quality, professional finish.

UCAN Co. Ltd. featured its FT-F UVSV Series ultrasonic humidifier. Available in 4-24 liters per hour humidity outputs, it is designed for a variety of applications, from refrigerated storage to clean rooms. The evaporative mist lowers the surrounding air temperature, allowing energy-saving humidification in refrigerated storage. Its powerful drip-proof air blower provides long mist distance. It comes equipped with a germicidal UV lamp that kills bacteria and viruses and sterilizes the water in the reservoir.

USHIO America Inc. introduced a mercury-free UV germicidal lamp. The lamps can be used for deodorization and disinfection in applications including refrigerators. Features include instantaneous on-off, effective germicidal UV wavelength, compact size, and easy installation. The UV light is not affected by the ambient temperature and functions well in cold temperatures.

Vents-US exhibited its Single Room ERV Units, available in TwinFresh Comfo RA-50, RA1-50, RA-50-2, and RA1-50-2 models. The units require no ductwork, consisting of telescopic duct, 6 inches in diameter. A ceramic ERV core has a sensible recovery efficiency (SRE) rating of 91 percent at 32°F, covered with antibacterial compounds. The Series' reversible-axial EC fan operates at 5.7 cfm per watt. Quiet, the unit operates at 0.1 sones with a MERV-6 filter, providing antibacterial air purification. One TwinFresh Comfo ventilator can serve rooms up to 350 square feet in size. Each ventilator is controlled independently, allowing ventilation for each room individually.

WingFan Ltd. & Co. showed its Blex® blade extensions for ZeroTip® clearance. The Blex blade extensions are made from highly durable nylon textile. The flexible fabric is ideal to adapt the fan diameter to the contour of the shroud, thereby reducing the clearance to ZeroTip. The noise created at the fan blade tips by air slippage and turbulence is significantly reduced due to minimized tip clearances.