
WELCOME TO THE *World* OF

2018 AHR EXPO
HAS FULLY EMBRACED
CUTTING EDGE TECHNOLOGY
IN ITS SEARCH FOR THE
BEST HVACR PRODUCTS
IN THE INDUSTRY.

Tomorrow

BY JORDAN BRANDES

Attendees of last year's AHR Expo know that IoT (Internet of Things) was a hot commodity in the HVACR world, even though at that time it was still on the fringes of the industry. With another year of R&D under their belts HVACR manufacturers landed in Chicago for the 2018 AHR Expo and brought the future with them.

The innovations at this year's conference went beyond just IoT, such as material science, the control of a material's structure, which is being harnessed to create better filters and help AC/R systems work more efficiently. Many of the new products on display at the show highlighted the demand for constantly changing the industry's approach to products used by technicians on a daily basis.

Many companies are using IoT to connect thermostats to smart phones, while others are changing their whole

system from the bottom up with IoT integration. One company, for instance, introduced a thermostat that can connect to a smart assistant like Google Alexa or Siri, adding voice control for users. Another has now connected all of its home devices with smart software so a single app allows users total control of everything from the company's air conditioners to its ovens and refrigerators. The list goes on as more and more manufacturers have discovered the power of technology and fully embraced it.

The following is a sampling of products that captured our attention at the 2018 AHR Expo. For a more comprehensive list of exhibitors and products visit www.ahrexpo.com.

AHR 2018



IoT Thermostat

The Glas Thermostat from *Johnson Controls* monitors humidity, TVOC and eCO₂ levels indoors, as well as outdoor pollen and air quality, and reports directly to the user via an unobtrusive glass monitor. Once connected to the app users can control air quality and monitor energy savings from anywhere. **Circle 1 on the reader service card.**



Combination DAC Economizer

The FUSION-TEC wall mount from *Bard Manufacturing* is a fusion DAC economizer and air conditioner that creates free cooling opportunities through a counterflow/reverse airflow process. Productive outdoor air for free cooling is brought into the system from the lower portion of the chassis. The heat in the shelter/e-building is pushed up and out of the economizer exhaust at the top of the chassis. **Circle 2 on the reader service card.**



Ice Machine

The Indigo NXT ice machine from *Manitowoc* has a front-facing evaporator that allows food zone access without removing the top or side covers. The inside has smooth rounded corners that easily wipe clean, and all food zone parts that need sanitizing can be removed without tools. **Circle 3 on the reader service card.**



Smart Control

The LG SmartThinQ app allows users to control any and all LG devices within the structure from any android or iPhone. All smart devices can now sync up with Amazon Alexa or Google Assistant, and also allow voice control from anywhere in the building. **Circle 4 on the reader service card.**



Industrial Ceiling Fan

The Titan line of industrial ceiling fans from *Hunter Industrial* is available in five sizes with diameters ranging from 14 ft.-24 ft, with a maximum affected area of 22,500 sq ft in its largest model. The fans integrate with local BMS systems and allow users to control multiple fans at once with a touch-screen panel. **Circle 5 on the reader service card.**



Differential Pressure Manometer

The SERIES 490A hydronic differential pressure manometer from *Dwyer Instruments, Inc.* is available in several basic ranges of differential pressure measurement, and can tolerate most liquid media compatible with 316LSS stainless steel. The device stores up to 40 readings at a time and is available in seven user-selected English and metric units. **Circle 6 on the reader service card.**



Water Leak Alarm

The FloodBuzz Pro-02 water leak alarm from *Archetype, Ltd.* was designed specifically to monitor air-conditioner condensate pans. The alarm allows moisture/water to build up to 1/8 in. before sounding a 110 dB alarm when water touches the two prongs on the bottom of the product. **Circle 7 on the reader service card.**



Radiant Ceiling Panels

QMark radiant ceiling panels from *Marley Engineered Products* are designed to provide localized spot heating or primary heating where it is needed. The panels can be specified by dimension and output level for each room to ensure optimal integration with a building's traffic flow and design. **Circle 8 on the reader service card.**



IAQ Meter

The *testo* 400 air velocity and IAQ meter comes programmed with clearly structured menus for volume flow, K factor, degree of turbulence, heating/cooling output, mold detection, and long-term measurement. Customers have the choice between a universal handle in wireless or fixed-cable form. This allows users to switch, in seconds, from an indoor air quality measurement to a volume flow measurement at a vent. **Circle 9 on the reader service card.**



Combustion Boiler

The CBEX Dryback Elite boiler from *Cleaver-Brooks* achieves 3% O2 across its 10:1 turndown range. The standard package offers 30 ppm NOx with <10 ppm CO. The unit is specifically designed to fit inside a shipping container for a complete operable boiler room shippable worldwide up to 1000 HP. **Circle 10 on the reader service card.**



Solar Heating Thermostat

The Microsol E differential thermostat for solar heating from *Full Gauge Controls* comes with three sensors that control the water circulation pump based on the temperature differential between the solar panels and the thermal tank or swimming pool. The thermostat ensures the yield of the heating system, and can prevent freezing pipes in winter. **Circle 11 on the reader service card.**



Ion Generators

Clear Sky self-cleaning ion generators from the *RGF Environmental Group, Inc.* were developed to produce bipolar ions in the conditioned space of homes and commercial buildings. The units reduce particulates, allergens, smoke, bacteria, viruses and mold spores. They are designed to be mounted in the HVAC air handler and installed using a magnetic mount. **Circle 12 on the reader service card.**



Attendees got a first-hand look at some of the HVACR industry's latest technology at the 2018 AHR Expo.



Equipment Pad

The ArmorPad equipment pad from *RectorSeal* provides support and lift for HVAC condenser outdoor units. The pad is constructed of a dense foam core base enveloped in a shell of durable polymer on five sides that aesthetically simulates the texture and color of gray concrete. The pad accepts and securely holds drilled-in hurricane clip anchors in high-wind zones. **Circle 13 on the reader service card.**



Bivoltage Compressor

The FMFT bivoltage compressor by *Embraco* is an intelligent and fast-cooling solution for light commercial applications. It improves temperature control, has much lower noise and vibration compared to current solutions, and is one of the most efficient compressors available for users in its capacity range. **Circle 14 on the reader service card.**

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A/C Security Cages

A/C security cages from **Diversitech** protect mini-split outdoor condensing units from theft, vandalism or damage. Available in three sizes that match more than 90% of all mini-splits on the market today, the protective metal enclosures feature a textured finish to complement common mini-split cabinet colors. **Circle 15 on the reader service card.**



YZ Chiller

The **YORK YZ** magnetic bearing centrifugal chiller uses an integral, variable speed drive and magnetic bearing technology that features a single moving assembly suspended in a magnetic field that does not require lubrication. The chiller can also operate with condenser temperatures below the evaporator temperatures, eliminating the need for a water-side economizer. **Circle 16 on the reader service card.**



AC/R Performance Enhancer

The Cool-Shot Ultra from **Errecom** is a solution that works as a synthetic catalyst that allows AC/R systems to work more efficiently. It reduces CO₂ emissions and extends the life of the AC/R system. When the air conditioner is in heat-pump mode it produces hotter air, escalating temperatures a further 9°F. **Circle 17 on the reader service card.**



Smarter Building Platform

The HVAC² Smarter Building platform from **Ventacity** uses auto-detection based commissioning to deliver plug and play technology into all of its systems. The platform integrates and networks with all HVAC equipment giving users macro- and micro-options for building management. **Circle 18 on the reader service card.**



Companies from all over the globe put their new products on display at the 2018 AHR Expo.



AF 100 EasyPEEL Tape

The AF 100 tape with EasyPEEL from **ShurTape** is recommended for use in application temperatures ranging from -20°F to 260°F and in humid conditions when sealing joints, connections and seams on rigid fiberglass ductboard and flexible air duct. The split liner provides additional stability to the tape, which helps prevent it from rolling onto itself and reduces the amount of tape wasted on the job. **Circle 19 on the reader service card.**



Load Reduction System

The HLR 1000E load reduction system from **enVerid** is an air quality management solution that uses sorbent filters to block contaminants from entering a building while allowing clean air through. Sensors in the HLR module determine when sorbent elements are saturated, and the system automatically switches to regeneration mode. Sorbents are then flushed with heated air to purge them of adsorbed contaminants. Once the sensors determine that the sorbents have returned to their clean state, the unit reverts once again to air-scrubbing adsorption mode. **Circle 20 on the reader service card.**

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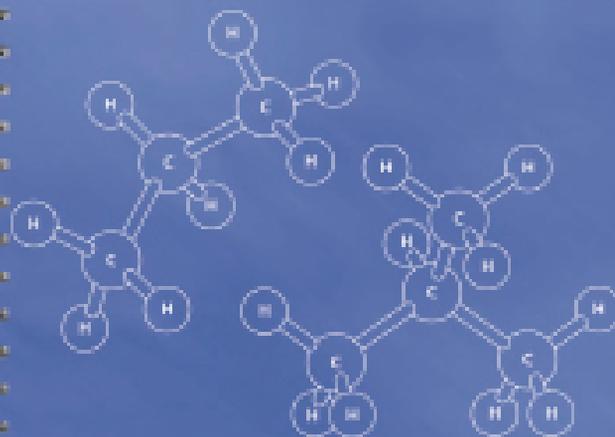
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