Daikin Brings Rooftop HVAC Innovation, Cooling Performance and Efficiency to Commercial Buildings

New heating and cooling technologies featured at AHR Expo extend Daikin’s commitment to increasing energy efficiency and reducing climate impact

ORLANDO, Fla. – Feb. 3, 2020 – Daikin today presented the Rebel Applied™ rooftop heating and cooling system at AHR Expo, the world’s largest heating, ventilation, air-conditioning and refrigeration (HVACR) technology showcase. Rebel Applied is the only packaged system to meet ASHRAE’s latest standard for performance in airflow design. Ideal for building retrofits due to its compact and customizable design, Rebel Applied delivers superior comfort, indoor air quality and energy savings.

“We believe that quality design needs quality construction to deliver ultimate value,” said Mike Schwartz, CEO of Daikin Applied Americas. “So, we opened a new manufacturing facility in southern Minnesota dedicated to the production of Rebel Applied. With advanced fabrication and automation technologies, we can tailor the build to meet specific customer needs, optimize production and deliver products that will perform at the highest levels.”

The rooftop system’s efficient footprint is up to 37 percent shorter in length and 30 percent lighter than legacy rooftop units. It is highly configurable as well; contractors can add or remove sections to adjust the length of the unit to fit on old or existing roof curb, saving time and expense for facility updates and upgrades.

Along with Rebel Applied, Daikin previewed two new ultra-high-efficiency chillers — the Magnitude® Magnetic Bearing Centrifugal Chiller and Aptitude™ Oil Bearing Centrifugal Chiller — at the exhibition.

Designed for easy installation and reliable operation, both chillers feature the smallest footprints in the industry compared to equipment with the same cooling capacity utilizing the ultra-low GWP, AHSRAE class A1, R1233zd refrigerant, making them ideal for retrofits where real estate is limited or at a premium cost. As noted, Magnitude and Aptitude use R-1233zd, the next-generation, low-global warming potential (GWP) HFO refrigerant for centrifugal chillers. R-1233zd is the only option that offers low toxicity and non-flammability (ASHRAE Class A1).

“We’re continuing the push to maximize comfort, performance and efficiency while lowering climate impact,” said Kirk Thorne, executive vice president at Daikin Applied. “The Magnitude and Aptitude chillers strike that balance for engineers, contractors and building owners. And they follow closely on the heels of our move to R-32, another low-GWP refrigerant, for rooftop units and other HVAC equipment.”
The Magnitude chiller builds on Daikin’s latest magnetic bearing technology, which eliminates oil, seals, gears and wear surfaces for longer machine life. This allows the equipment to run at peak levels, up to 40 percent more efficient than standard centrifugal chillers. The Magnitude can perform at full load efficiencies as low as 0.49 kilowatts per ton (kW/ton) with part load values as low as 0.29 kW/ton. Plus, the RapidRestore® capability, which ensures quick restart times, and high temperature of water leaving the evaporator make the technology best suited for mission critical applications like data centers and hospitals.

Ideal for comfort cooling applications, such as offices, hotels and stadiums, the Aptitude product line uses traditional oiled bearing technology, along with the reliable bench grinder design with one stage on each side of the motor to deliver leading efficiency and performance that matches the Magnitude chiller.

The Magnitude and Aptitude chillers will be available later this year.

For more information on the Rebel Applied rooftop system, and the company’s current lineup of commercial HVAC equipment and services, visit www.DaikinApplied.com.

About Daikin Applied

Daikin Applied, a member of Daikin Industries, Ltd, designs and manufactures technologically advanced commercial HVAC systems for customers around the world. Customers turn to Daikin with confidence that they will experience outstanding performance, reliability and energy efficiency. Daikin Applied equipment, solutions and services are sold through a global network of dedicated sales, service and parts offices. For more information or the name of a local Daikin Applied representative, call 800-432-1342 or visit www.DaikinApplied.com.

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