SAMSUNG

VRF Case Study

Old meets new.

Maximizing revenue-generating space with flexible installation and design capabilities at Hotel Saint Louis.



Project: Hotel Saint Louis | Product: DVM S Heat Recovery | Location: St. Louis, Missouri

BACKGROUND

Hotel Saint Louis is a historic landmark built in 1893 as an office building called the Saint Louis Union Trust Company building. The building was designed by famed architect Louis Sullivan, who was reported to be a mentor to Frank Lloyd Wright and is credited as being the creator of the modern skyscraper.

The building was vacant for about 5 years before it underwent a multi-million-dollar renovation and reopened as a boutique hotel. It's a multi-use structure in terms of having a two-story lobby, restaurant, ballroom, 12 stories of hotel, and above that some permanent residences. There's also a restaurant, spa, and pool on the top floor.





CHALLENGE

Due to the history of the original design, it was important to keep the look and feel of the space intact while modernizing the amenities and maximizing revenue-generating space.

Another challenge was the building's 12-foot ceilings, which added significant length to the piping and made it necessary to be selective in how the systems were mapped out to keep them within installation guidelines.

SOLUTION

The design team renovating the Hotel Saint Louis collaborated with NSC APG, a Samsung manufacturer representative in St. Louis, Missouri, who recommended a design that featured Samsung HVAC's DVM S Heat Recovery Variable Refrigerant Flow (VRF) system.

They used the Heat Recovery system for all of the guest rooms, which are connected to ducted indoor units. The compact design of the ducted indoor units made them easy to conceal by mounting above the ceiling. A dropdown return air filter grill provides easy access for service and filter cleaning, all while minimizing the intrusion of HVAC into the original structure of the historic building.

Additionally, the new design utilized part of the roof for a restaurant, bar, and swimming pool area, which used a ton of real estate that might have ordinarily been used by mechanical equipment. Thankfully, Samsung HVAC's modular units have a much smaller footprint.

This equipment also has the ability to run longer piping distances between indoor and outdoor units. Outdoor units were mounted on the 16th and 17th floors with lines running down from above and on the 2nd floor with lines running up from below.

While hotels haven't traditionally used VRF extensively in the past, the trend is beginning to head in that direction due to its smaller footprint and zoning capabilities. Installing Samsung HVAC's VRF units and being able to place more compact systems in different locations gave them the ability to maximize revenue-generating space.

To learn more about Samsung DVM S, visit SamsungHVAC.com