FläktGroup®

SEMCO®

EXPERIENCE
IN THE FIELD

MODULAR DUCT SYSTEMS
MD PANEL SOLUTIONS

There are many benefits to acoustical panels beyond just acoustics. Since they have grown increasingly popular over the last 50 years, acoustical panels have found a variety of different applications beyond sound attenuation in the HVAC field.

A case in point is Saint Thomas West Hospital located in Nashville, TN. The 42-year-old, 550 bed hospital recently completed an outdoor-air retrofit to improve IAQ and energy recovery sustainability measures to its seven-level, 800,000 sq.ft. K Tower. The retrofit brings the circa-1973 building into current ASHRAE Standard 170, "Ventilation for Health Care Facilities", recommendations. It is also part of a network wide ongoing environmental stewardship mission inspired by its non-profit parent organization Ascension Health (St. Louis, MO). The retrofit enhanced the IAQ the hospital supplies to its patients and employees.

Engineering the retrofit was not easy, however, because the building does not have space to add additional ductwork to deliver conditioned outdoor air from the retrofit project's rooftop ERVs. The only alternative beyond a destructive and space consuming internal duct system was a vertical ductwork riser installed externally down the side of the building.

Instead of conventional insulated ductwork, mechanical contractor, Nashville Machine Co. (Nashville, TN) suggested 4" thick acoustic panels for the 5' x 5' rectangular air-distribution riser that runs down the building's exterior. The panels supplant metal ductwork serving the dual purpose of supplying conditioned outdoor air from the rooftop ERVs and returning exhaust air from each floor to the ERVs, all inside the same 5' x 5' riser. An interior dividing panel creates two separate 2.5' square runs.

The most critical factor in choosing panels over sheet-metal ductwork was aesthetics. The panels, because of FläktGroup® SEMCO®'s ability to customize, factory powder-coat, and color match them to the building's beige exterior, actually appear as an accoutrement. Project architect FreemanWhite (Brentwood, TN) and consulting engineer TME (St. Louis, MO) paid strict attention to aesthetics, that the panels were factory designed, and assembled in sections where their seams matched the building seams.