The eight-story Franklin Templeton building was built over 20 years ago, in 1997, with a single, belt-driven centrifugal fan for ventilation. Significant repair and maintenance expenses over the recent years far exceeded the annual budget allocated and necessitated replacement with a more efficient solution.

JOB PROFILE

Commercial Office

At a Glance

Location
St. Petersburg, FL

Area Served
280,000 sq. ft.

Situation
Upgrade the outdated belt-driven centrifugal fan and install a new filtration system with UV lights without modifying the AHU housing.

Solution
The constructed solution consisted of a modular, 10-fan system designed to reduce the footprint in the AHU and was installed within 8 hours.

Q-PAC's integrated, modular fan system overcame installation constraints to significantly lower annual maintenance expenses.

Challenges

Limited options were available to replace the aged, belt-driven centrifugal fan due to the project requirements of not using special rigging or demolition services, accessing the equipment room through the 34" x 72" equipment room doorway, and having to use the existing AHU housing without modification.

Actions

The Q-PAC team worked closely with Carroll Air Systems and ISS Mechanical representatives to:

1. Understand the building's unique AHU physical layout and building ventilation performance requirements
2. Custom design an integrated, modular fan system using Q-PAC's automated selection and submittal tool
3. Internally fabricate the bulkhead wall and pre-wire the electrical harnesses assembly with plugs
4. Kit, label, and package the complete fan system for doorway accessibility and easy contractor installation
5. Provide on-site Q-PAC field installation and fan system start-up support to assist the mechanical contractor

Results

Q-PAC systems delivered on Franklin Templeton's expectations over the other retrofit options considered by eliminating the need for rigging and demolition services, enabling equipment room doorway accessibility with small fan system components, significantly reducing the time to install the new fan system, and eliminating the need to replace fan belts and grease bearings.

Notable Highlights

- Significantly decreased maintenance expenses
- Reduced install time from 2+ day to 7 hours
- Replaced fan system without modifying AHU
- Eliminated rigging and demolition requirements