



PROJECT PROFILE

USX TOWER

Project At a Glance

Location Pittsburgh, PA

Area Served 450,000 sqft

Situation

A mechanical problem arose with a centrifugal fan serving 14 floors which would require a hole in the building to repair.

Solution

Minimize building impact by replacing the fan with a Q-PAC System able to fit through any existing AHU door.

Q-PAC's modularity saved the 16th tallest building in America from 2 weeks of downtime and future maintenance

Challenges

Existing double inlet centrifugal fans were estimated to take up to 2 weeks of down time to repair, which would cause a major disruption for the 8,000 – 10,000 people in the tower daily. The fans were built into the building in 1967 and would require a hole cut in the building and numerous cranes to repair the 12ft x 10ft, 6,000lb fan. The original AHU required a solution that could fit through their 30in wide door.

Actions

The Q-PAC team worked closely with our manufacturing rep, ThermalTech, and our installing contractor, K&I Sheet Metal, in Pittsburgh, PA to:

I. Design a 24 fan solution to meet exact cfm capacity of the previous 1967 fan.

2. Provide a pre-engineered product with power and control wiring completed for ease of installation.

3. Provide on-site Q-PAC field installation and fan system start-up support to assist the mechanical contractor

Results

A Q-PAC fan system was installed over a short period of time without an electrician and ahead of schedule. It replaced the existing AC motor fan with a maintenance-free solution leading to major savings on labor-hours. With the additional requirements of a LEED building, the Q-PAC fan systems were able to handle the extra static pressure needed to deliver the air to the space. Q-PAC brought the building's AHU up to date with "a state of the art, cutting edge, and classic" technology.

Notable Highlights

- Reduced energy use by 2/3rds
- Non-disruptive installation
- Enough SP to meet LEED requirements