PRINCETON UNIVERSITY
JADWIN HALL,
PRINCETON NEW JERSEY

SETTING

- Type of Building: Existing
- Function: Department of Physics
- Scope: Two 6-story exhaust shafts
- Project Completion Date: May 2013

Challenge: Sealing significant leaks in two of the building's 6-story exhaust shafts. While building renovation included total replacement of much of the original HVAC system and metal ductwork, these two exhaust shafts consisted primarily of unlined masonry and brick veneer. With little to no access to the shafts' interior, engineers were looking at the very expensive and disruptive possibility of having to break down and totally rebuild the structures. Without sealing the leaks, engineers would be unable to meet their goals of balancing the HVAC system, eliminating exhaust issues and reducing the building's energy usage.

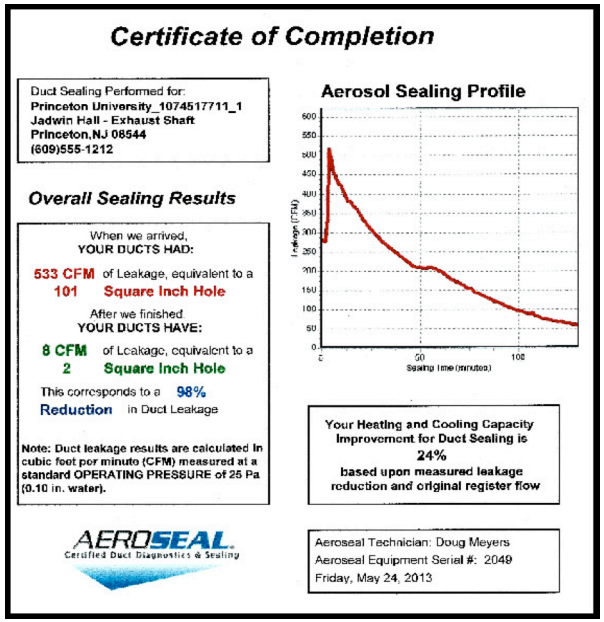
AEROSEAL®
Duct Sealing From The Inside

Solution: Aeroseal. A hole cut in the plate was used as an entry point from which the Aeroseal sealant was blown in and throughout the interior of the two shafts.

Aeroseal can seal all types of ductwork; metal, flex duct, aluminum…even masonry and brick surfaces. The entire project took only three days to complete. One day per shaft plus setup and breakdown>

Results: Aeroseal eliminated 98% of leaks – reducing leakage from 533 CFM down to 8 CFM. With leaks effectively sealed, the TAB team was able to balance the system. More importantly, exhaust issues were resolved and energy use was reduced.

"Aeroseal worked quickly and effectively to solve a potentially project-derailing obstacle, said Aric Duvalla, Princeton University's Assistant Facilities Supervisor. I imagine there are other campus projects that could use this technology as well."



TEAM

- Owner – Princeton University
- Contract Managers – Irwin Leighton
- Engineers – Vanderweil Engineers
- TAB Company – RCC Engineering
- Sealers: Aeroseal of Philadelphia