Aeroseal for Healthcare and Labs: Improving IAQ, Energy Efficiency, and Patient Comfort

Visit Our Website

Aeroseal.com

Where indoor air quality matters most

Leaky ductwork is a key contributor to poor indoor air quality, directly impacting the health and well-being of a building's occupants.

Improve building efficiency and create a lasting positive impact.

Aeroseal provides a holistic approach to energy efficiency and building performance, providing a range of benefits that extend beyond individual buildings to positively impact communities and the environment.

An Invisible Problem

Did You Know?

75% of commercial buildings have air duct leakage, adding up to $2.9 billion in wasted energy costs each year.

It is difficult to see and gauge the loss in air through leakage that cannot be seen.

According to the U.S. Department of Energy (DOE), leaky ductwork is one of the biggest contributors to energy waste in U.S. buildings today, leading to more carbon emissions and wasted energy costs that pay for escaping air.

Duct leakage is a leading building fault contributing to energy waste, massive energy loss and CO2 emissions.

Leakage is also a contributor to the consistency of indoor air quality affecting both labaratory and patient rooms.

A Proven Solution

Aeroseal redefines air sealing, with the ability to seal remotely. The solution offers a combination of speed, precision, and real-time measurement that sets it apart as the benchmark solution in the industry.

- Minimal disruption to patients and staff;
- Low/no VOC sealant;
- Better indoor air quality;
- Improved patient comfort; and
- Protection from dust, allergens, and pollutants into indoor spaces.

How It Works

Pressurize the Space

External or system fans create pressure.

Inject Sealant Particles

Vents and returns are blocked, and the space is prepared for sealing per ICRA standards. A controlled algorithm creates a fog of micron size particles.

Seal the Space and Prevent Future Leaks

Results are more effective at a fraction of the price of traditional methods and are immediate and verifiable.

Visible Results

Increased Energy Efficiency

Additional strain on HVAC systems from having to keep up with wasted air can put pressure on the HVAC system and potentially reduce its lifespan. Recommending Aeroseal or including the system in building plans can extend the life span of systems.

Immediate Improvement Without Construction Costs

Automated technology improves duct leakage by 90% or more without the need to demolish existing systems or construct any additional infrastructure.

Trackable Effectiveness With Quick Payback

While leaky air is difficult to see, the results are real, trackable and have a real effect on energy costs. Aeroseal's proven system can show the effectiveness immediately, while energy costs will show the longterm benefits of investing in a system that will pay you back. Varying by industry, most commercial buildings see payback vary from 2-8 years.

90%
Average
Leak
Reduction

Did You Know?
Most commercial buildings have air duct leakage ranging from 10 to 25%, requiring HVAC systems to work harder to maintain comfortable temperatures.

Quality Improvements That Matter Most

Energy Efficiency

Aeroseal helps reduce energy waste by sealing leaks in ducts and building envelopes. This results in more efficient and cooling systems, as the conditioned air is less likely to escape through gaps and cracks.

Improved Comfort

By sealing air leaks, Aeroseal helps maintain a more consistent and comfortable indoor temperature. This is particularly important in regions with extreme weather conditions, as it prevents drafts and uneven heating or cooling.

Environmental Impact

Lower energy consumption translates to a reduced carbon footprint. Implementing Aeroseal as part of an energy efficiency program contributes to sustainability goals by minimizing the environmental impact associated with energy production and consumption.

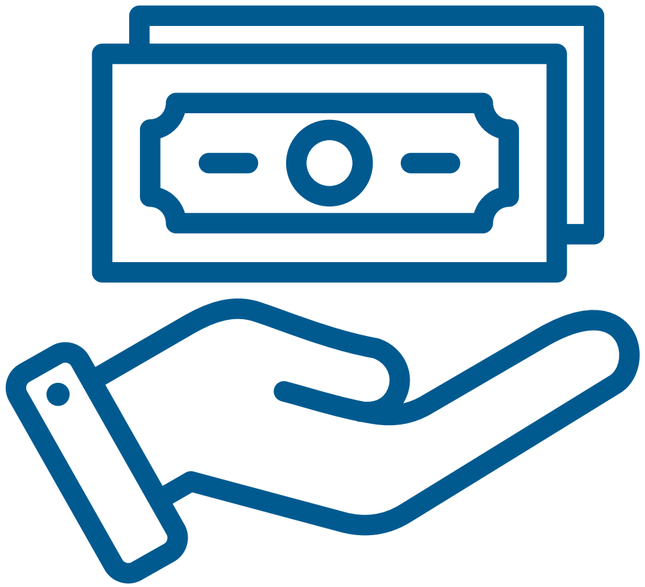
Indoor Air Quality

Aeroseal helps prevent the infiltration of dust, allergens, and pollutants from the outside environment into the indoor spaces. This can contribute to better indoor air quality, creating a healthier and more comfortable living or working environment.

Compliance with Codes

Improving the airtightness of ducts and building envelopes through Aeroseal may help buildings comply with energy codes and standards. This is particularly relevant in areas where energy efficiency requirements are becoming more stringent.

Investing In A Foundation For The Future



Cost Savings

Increased energy efficiency and reduced energy waste lead to lower utility bills. Over time, the cost savings from improved efficiency can offset the initial investment in Aeroseal technology.

Program Incentives

In some regions, governments and utilities offer incentives or rebates for implementing energy efficiency measures, including Aeroseal. Participating in such programs can help offset costs and encourage the adoption of energy-saving technologies.

Enhanced Building Value

Investing in energy efficiency measures, including Aeroseal, can increase the overall value of a building. Improved efficiency, lower operating costs, and compliance with environmental standards can make a property more attractive to potential buyers or tenants.

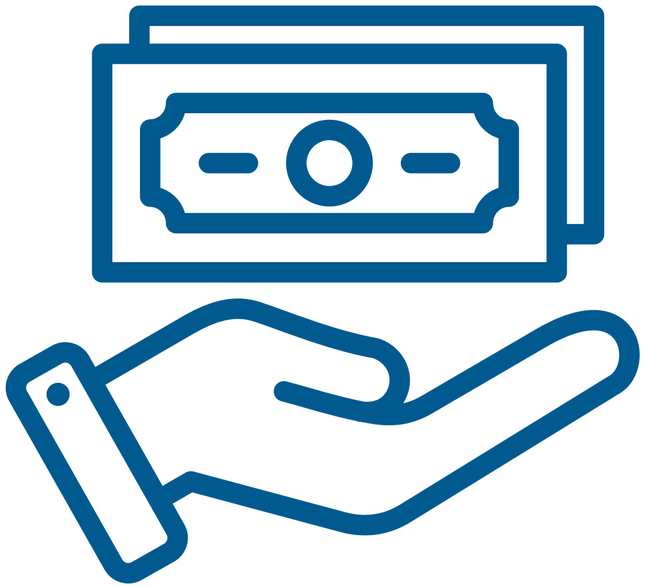
Long-term Durability

The Aeroseal process creates a long-lasting seal that can withstand changes in temperature and pressure. This durability ensures that the benefits of the sealing process persist over time, contributing to the long-term sustainability of the building's performance.

HVAC System Performance

Sealing duct leaks can enhance the performance of heating, ventilation, and air conditioning (HVAC) systems. When air is distributed more effectively through sealed ducts, HVAC systems can operate more efficiently and maintain optimal performance levels.

Prevent Leaks and Start Saving Money



For Healthcare Facilities

The average payback is 4-6 years. Meaning you'll prevent leaks, earn back your investment, increase your efficiency and make a notable impact on your cost savings.

New York State Medical Facility

Case Study

Building: New York State Medical Facility
Before Aeroseal: 29,836 CFM Leakage
After Aeroseal: 870 CFM Leakage
Results: Seal ductwork to 97% leakage reduction; saved $22,694 in annual energy usage/costs

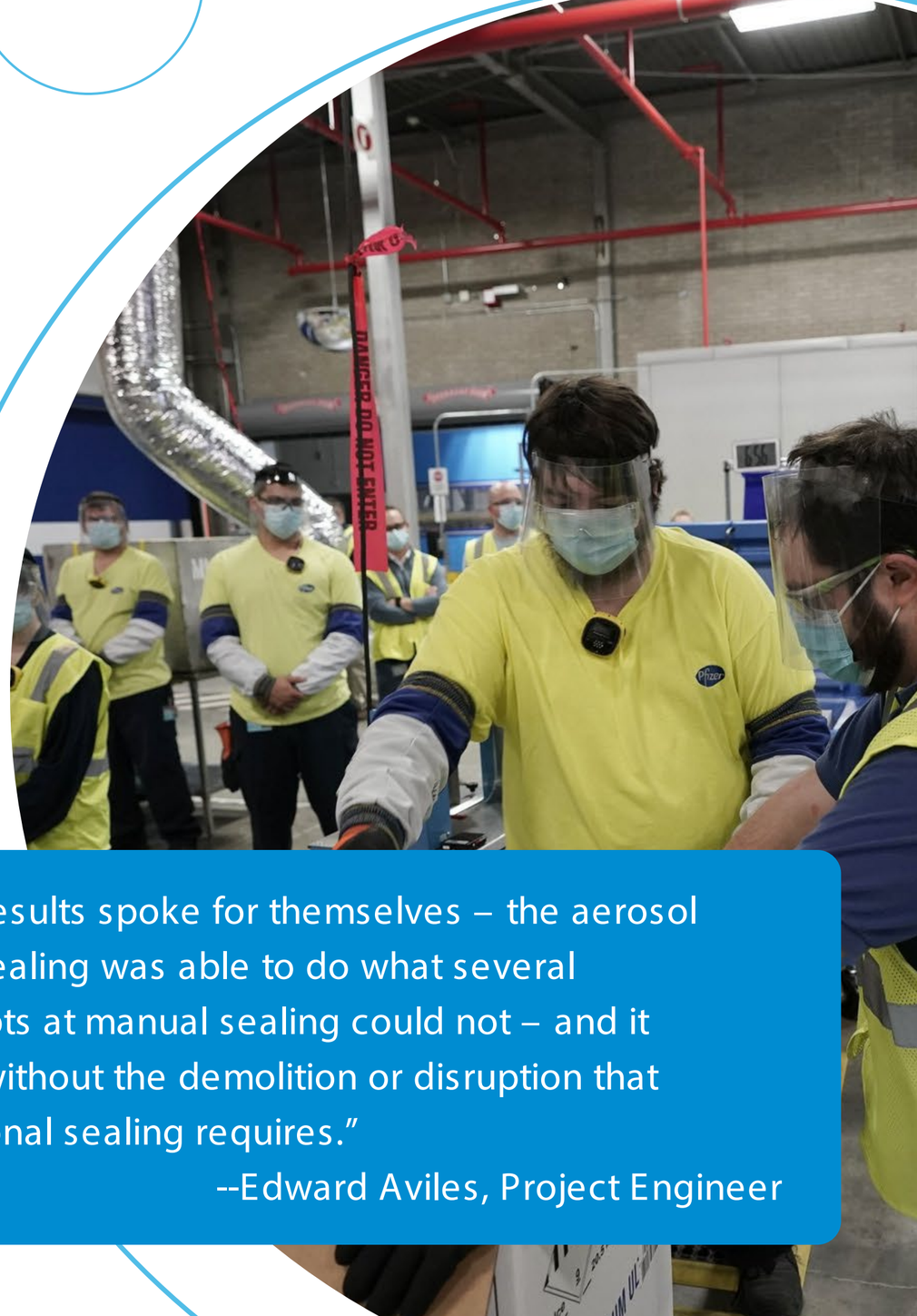
"The preparation put into this project before the sealing even began was extraordinary and reflected the team's understanding of the special requirements demanded by this unique environment."

-ESCO Facility Director

Pfizer

Case Study

Building: Pfizer Dry Compress Building
Before Aeroseal: 2,424 CFM Leakage
After Aeroseal: 77 CFM Leakage
Results: Pfizer saved $35,000 annually



"The results spoke for themselves – the aerosol duct sealing was able to do what several attempts at manual sealing could not – and it did it without the demolition or disruption that traditional sealing requires."

--Edward Aviles, Project Engineer

Nemours Children's Facility

Case Study

Building: Nemours Children's Facility
Before Aeroseal: 4,912 CFM Leakage
After Aeroseal: 713 CFM Leakage
Results: 85% leakage reduction; Stopped spread of germs through ductwork; improved HVAC airflow throughout facility

In order for a hospital to be clean, you have to manage the building's airfl ow. By sealing the exhaust shafts using Aeroseal, we ensured that the right amount of stale and potentially infectious air is being adequately and continually removed from the building.

- Derrick Rhodes

We see buildings differently.

Let us help.

Learn more about how proven results can help you see the unsee-able.

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Appendix: Sealant

What You Should Know

Vinyl Acetate Polymer:

- The same base for chewing gum, hair spray and water-based paints
- Keeps elasticity – life expectancy over 30 years
- No VOC off-gassing after curing – 2 hours to cure
- UL certified and in ASTM compliance for:

UL certified and in ASTM compliance for:

- Surface burning
- Mold growth and humidity
- Interior duct burning
- Leakage reduction
- Durability

Meets NFPA 90A standards

Uses only one gallon for every 2,000-3,000 CFM of leakage

Appendix: Certifications

What You Should Know

- ASHRAE Standard 152
- ASTM E2342-10
- FEMP Top Strategy

- GBI Climate Impact Reduction
- NFPA 90A Standards
- NGBS Certified Product

- CEC Title 24 Standards
- UL 1381 Sealant Durability
- USGBC Eco-Friendly, LEED

Task force approved measure

Approved energy savings