

≡ CASE STUDY ≡

## PITTSBURGH HOMEOWNER TURNS TO DUCT SEALING INNOVATION FOR COMFORT AND FINDS ENERGY SAVINGS AS A BONUS

### Local Aeroseal Dealer Called For Help In Getting Even Heat Throughout The Home

Ever since Erik B. moved into his Pittsburgh-area home, he and his family struggled to get enough heat and air-conditioned air to all the rooms in the house. No matter how he set the thermostat, some rooms remained uncomfortable during hot summer days and cold winter nights. He first tried insulating his home to solve the problem, but that did little to help. He then noticed that air was blowing stronger out of some of the vents than others. Internet research led him to information about the role duct leakage often plays in robbing homeowners of comfort and energy savings.

He also found information about a new approach to duct sealing that works from the inside of the duct system to find and seal all the leaks – not just those on the outside, easily accessible by hand.

#### In Brief

**Building:** 60 year old, 2-story home.

**Location:** Alison Park, PA.

**Furnace type:** High-efficiency; 80K btu.

**Air Conditioner:** 2.5 ton system.

**Aeroseal Company:** Aeroseal of Pittsburgh.

**Goal:** Improve comfort of home.

**Before Aeroseal:** 390 CFM of leakage.

**After Aeroseal:** 26.2 CFM of leakage.

**Results:** Balanced temperatures between rooms.  
93.3% reduction in leakage, plus 12% energy savings.



After a call to his local Aeroseal dealer, Aeroseal of Pittsburgh came to his home, free of charge, and tested his ductwork for leakage. Results indicated that while his energy-efficient furnace and air conditioner were working properly, he was losing nearly 390 CFM of treated air through duct leaks. According to computer calculations, all of the little leaks added together were the equivalence of a 54 square inch hole. Erik decided to have the ducts cleaned and the leaks aerosealed shut.

On the scheduled day, the Aeroseal team arrived in the morning, laid down drop cloths in the intended work area, and began by cleaning the duct system. By early afternoon, they had cleaned and prepared the ductwork for sealing. It took about one hour to seal the entire duct system. At the end, the computerized Aeroseal process generated a report that showed that leakage was reduced by more than 90%. More significantly, Erik immediately felt the difference with strong air coming out of vents throughout his home. As a bonus, he calculated that he would now be saving \$300 - \$500 year on his utility bill.

“The temperatures throughout my home have felt much more balance since they were arosealed. The force of the air coming from the problem vents has increased substantially, and my furnace and AC now run less to better heat and cool the house. The team at Aroseal of Pittsburgh was professional and highly respectful of my home. I would definitely recommend Aroseal if you are looking for increased home comfort.”

Erik B., homeowner

“Erik’s story isn’t unusual. Most of the homes we test in this area have leakage rates in excess of 20% – an amount that really makes a difference in indoor comfort and energy usage. With Aroseal, you can easily reach and seal the entire duct system, not just the small fraction of exposed ducts that you may be able to seal by hand. It usually takes us less than a day to clean and seal an entire home.”

Andy Haak, owner, Aroseal of Pittsburgh

#### Aroseal – The Technology

- Developed at Lawrence Berkeley National Laboratory in 1994.
- Research for arosealed technology was partially funded by the U.S. Department of Energy.
- Aroseal is the only duct sealant technology that is applied from the inside of the duct system. It is delivered as a non-toxic aerosol mist that seeks out and plugs leaks.
- Aroseal has proven to be 95% effective at sealing air duct leaks.

For more information on this sealing project or about Aroseal in general, contact Aroseal at (937) 428-9300. You can also visit the Aroseal website at [www.aroseal.com](http://www.aroseal.com).

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