

# Air Diagnostics Inc

5110 Summerell Ave.  
Gastonia, NC 28056

PHONE (704) 824-8333  
FAX (704) 823-9574

January 5, 2006

## The Attic Tent

The purpose of this letter is to compliment you on the unique design and application of your product. I have installed an attic tent in my new home and now enjoy the energy savings as well as an increase in the comfort of my home. I have been in the heating and air conditioning industry for over 28 years. Over the years I have worked directly with the engineering and design staff of several major mechanical contracting companies with hands on field application. In addition to holding multiple mechanical licenses, I am nationally certified in air balancing, air flow diagnostics, system performance & efficiency testing, IAQ and carbon monoxide.

The attic tent is unique because it deals with one of the main problems affecting the performance and efficiency of an HVAC system and that is "INFILTRATION" or air loss. The whole concept of conditioning a space is based on controlling the variables that affect that space. The attic tent actually works with the HVAC system to optimize performance. When a system is operating, the structure / envelope is either in a negative or a positive pressure, depending on the condition of the air distribution system. A house or occupied dwelling of any sort must maintain a slight positive pressure at all times. The purpose of this is to prevent unfiltered externals from being drawn into the condition space, thus affecting the indoor air quality (IAQ). It is not uncommon for a home to be in a negative pressure and no body ever knows, because it is never checked. Usually a home owner just learns to live with excessive dust, allergies (due to pollutants) and even higher than normal utility bills. Before and after test have been performed with the attic tent and conclude that it does effectively stop air movement through the attic access area. I have measured the air loss from the pull down attic stairs of my own home and converted it to BTU's. We calculated approximately a half ton of cooling loss through this area. In addition, I have performed smoke test in several homes (this makes invisible air flow patterns visible) and found a tremendous amount of air movement around the attic access. Several products have been tried such as a box, plastic etc. None of these sealed the hole and prevented air movement. The attic tent is flexible, easy to install and seals the hole tight. I believe the attic tent is as important as thermal windows, shingles and insulation in any home.

The air balancing industry has a monthly newsletter that provides us with updated reports from engineering staff dealing with these common problems. Here are some quotes from them:

*Quality People, Quality Performance, Quality People, Quality Performance, Quality People, Quality Performance*

“When an area is operating in a severe positive or negative pressure, a significant amount of conditioned air can be expelled to the outside. Hot or cold and even dirty air can be pulled into a room through loose fitting doors, windows or other envelope penetrations by negative pressures”.

High Performance Contracting  
August newsletter – Article “Balance more than just the air”

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“Positive pressure controls ventilation into a building, and keeps air from being pulled in from undesirable locations”.

November 2004 – Newsletter

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“The amount of air required to pressurize a building increases depending on how leaky the building envelope is”.

November 2004 – Newsletter

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“A negative pressure of .015 w c in a mechanical room or area containing vented equipment can cause a furnace, water heater or other gas appliance to back draft and carry deadly carbon monoxide into the building, posing a serious health exposure to the occupants”.

November 2004 – Newsletter  
Article – “Dangers of negative pressures”

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“Other pressures act upon a building as well. Wind is a pressure that acts on a building and changes from moment to moment. It exerts a positive pressure on the windward side and a negative pressure on the downwind side. Stack effect, the upward flow of warmer air, creates pressure differentials”.

November 2004 – Newsletter

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**Rick Pressley**  
**President / Owner**