

Air Sealing Solutions

What is Air Leakage?

Ventilation is fresh air that enters a house in a controlled manner to exhaust excess moisture and reduce odors. Air leakage or infiltration is outside air that enters the conditioned air space of a house uncontrollably through cracks and openings. It is unwise and inefficient to rely on air leakage for ventilation. During cold or windy weather too much air may enter the house and during warm or calm weather too little would enter. Additionally, a leaky house that allows moldy, dusty crawlspace or attic air to enter is not healthy. Air infiltration can account for 30% or more of a home's heating and cooling costs and contribute to problems with moisture, noise, dust, and entry of pollutants and pests.

What should be done?

The recommended strategy in both old and new homes is to reduce air leakage as much as possible and to provide controlled ventilation where needed. The conditioned space of a house needs to have an air barrier between its inner walls and the outside environment. If installed properly the sheet materials that form the walls, ceilings and floors are effective at stopping air leaks. It is critical that all penetrations, seams and cracks in these materials are sealed properly with caulk, sealant, tape or gaskets. House wrap material has become popular in recent years and is very effective on air ceiling walls. Note: Most common insulation materials do not prevent air leakage and should not be relied on to handle the problem.

Where are the Air Leakage Points?

- Ductwork and plumbing chases that lead to unconditioned spaces. (attic and crawlspace)
- Dropped ceilings and kitchen soffits.
- Recessed light fixtures.
- Attic and crawlspace access doors.
- Electrical wiring and HVAC control line penetration through the bottom and top framing plates to the unconditioned space.
- Seals around windows and doors.
- Fireplace dampers.
- Cracks and gaps in the drywall and flooring.
- Electrical receptacles.

How can the Air Leakage points be found and diagnosed for repair?

An effective way is the Vectren Air Infiltration Audit utilizing the Blower Door Test equipment as described on Vectren.com. If you would like additional energy savings tips or if you would like to schedule a Blower Door Test, please see our energy efficiency section at www.vectren.com or contact us by e-mail at marketinginfo@vectren.com.