



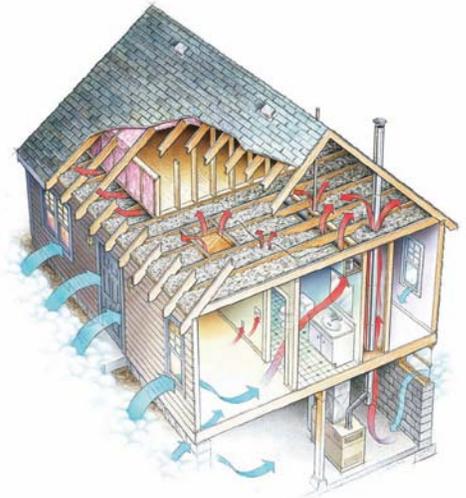
# DIY FOR 2011



## **Basic Information About Sealing Air Leaks:**

Drafts, or “air leaks” in your home *do* exist. They cause conditioned air escape from your home and allow unconditioned air to enter your home. This becomes more inconvenient in the cold winter months when you are trying to keep your home warm. Air leaks cause cold air to enter your home, increase your home’s heating requirements, and run up your utility bill. The same happens in the warm summer months with your AC. Studies conducted by the US Department of Energy (DOE) show that up to 40% of your home’s energy consumption is due to air infiltration.

You may understand that air infiltrates the home through obvious areas around windows and doorways but, that is only the beginning. Air makes its way through any crack or hole in your home’s exterior. Examples of areas that allow air to infiltrate are any hole drilled for electrical or plumbing (outlets, wall switches, lighting, water lines and drains), where walls meet floors or ceilings, and even between the foundation and the floor joists. The naked eye may not see these cracks, holes, or leaks in your house, but unless you have had a blower door test performed during an energy analysis of your home, there is no doubt that they exist.



Sealing air leaks will enhance the performance of your home and increase its energy efficiency. This short tutorial will help you determine the most probable places for air leaks and provide you with materials to seal them. (Note: we recommend an energy audit with blower door testing prior to this process. For more information why, send an email to [info@aspenenergyefficiency.com](mailto:info@aspenenergyefficiency.com) )

## **Common places for air leaks:**

1. Windows & doors
2. Attic hatch
3. Electrical wiring holes
4. Plumbing penetrations
5. Recessed lights, outlets, and wall switches
6. Basement rim joists (where the foundation meets the wood framing)
7. Around knee walls
8. Any visible hole or crack on the exterior or interior of your home

## Air Sealing Materials:

**Weather Stripping** – There are several varieties of weather stripping depending on the application. It is flexible and used for air sealing around doors and windows. It is not used to permanently seal a hole or crack.

**Caulk** – Caulk forms a flexible, permanent seal and is used for cracks, gaps, or joints that are typically less than 1-half-inch wide inside or outside your home. Caulking is also the preferred way to prevent water damage inside and outside your home when applied around faucets, water pipes, drains, bathtubs and other plumbing fixtures. High temperature caulk is also available for sealing around flues and chimneys.



**Expanding foam (spraycan)** – Expanding foam is exactly that, expanding and can be used to fill larger cracks and holes. The most common use for expanding foam is where intentional holes have been made to run conduit, plumbing, etc.



**Vapor/Air Barrier** – This is typically plastic sheeting and can cover large areas quickly and effectively. It is the material you find behind your drywall covering the insulation. Use it in crawl and attic spaces where insulated walls are exposed.

**Insulation** – Insulation comes in many variations from fiberglass batts to blown-in cellulose. Check with your auditor or contractor for the proper material given the application. Once you have properly air sealed added insulation will effectively keep conditioned air within your home.

**Reflective foil** – Reflective foil is a radiant barrier that comes in rolls and is primarily used to stop the gain of heat in warm summer months. With 97% reflectivity, it can reflect a majority of the radiant heat from the sun away from your home. Install in attics at the roof line and crawl spaces.

*Sealing air ducts will no doubt make your home more energy efficient. Insulating materials minimize the amount of escaping heat and entering air. Not only will insulating measures reduce your utilities bill, but it also helps reduce the amount of fossil fuel combustion needed to heat and cool homes. If less fossil fuels are needed to heat our homes, then the amount of carbon dioxide emitted into the atmosphere will decrease the threats of climate change.*



### THE CITY OF ASPEN

#### UTILITIES

