

Leaky ductwork often accounts for up to 20 percent of total heating and cooling costs. Leaky ducts may cause you to introduce unhealthy air into your home. Protecting your health, safety and comfort are the most important reasons for sealing ducts.

Duct leakage can impact health and comfort, and waste money in energy costs. Don't fall through the cracks—**seal your ducts today.**

### Health & Safety Problems!

Improperly sealed ducts can draw contaminated air into your home, compounding existing health problems such as allergies and asthma. This air can be contaminated with dust, mold, excess humidity, and potential toxins such as pesticides, combustion gases, and radon, all of which can be hazardous to your health.

### Uncomfortable Rooms!

Sealing your ducts can increase the ability of air conditioners, furnaces, and heat pumps to evenly heat or cool all of the rooms in your home.

### Pollution!

Leaky, inefficient ducts contribute to air pollution through wasted energy. Meeting the ENERGY STAR specification for Ducts is equal to planting 265 trees per year for each household.

## What is the ENERGY STAR® Label?

The ENERGY STAR Label helps consumers recognize energy-efficient products that save money on their utility bills. The U.S. Environmental Protection Agency (EPA) and the Department of Energy (DOE) created the ENERGY STAR label as the symbol for energy efficiency because of the direct link between wasted energy and air pollution. Manufacturers and builders voluntarily display the label on products and new homes that meet high efficiency ENERGY STAR guidelines, including heating and cooling equipment, household appliances, TVs, VCRs, residential light fixtures and new homes.



Money Isn't All You're Saving



## EPA The ENERGY STAR® Specification for Ducts

### What Have Your Ducts Done for You Lately?



Money Isn't All You're Saving

Ducts work as a team with your heating and cooling system to keep you comfortable in your home. The duct system delivers the warm or cool air from the equipment to all of your rooms. This is similar to the water piping. You certainly wouldn't want your pipes to leak so why not stop your ducts from leaking?

Ducts can also run within the walls, floors, and ceilings. The major duct locations are in the attic, crawlspace, or basements. Ductwork in older homes and new homes usually experience duct leakage problems.

If your home has **leaky ducts**, then you may be experiencing:

### Excessive Energy Bills!

Duct sealing can save you up to \$140 dollars per year on your heating and cooling bills.

### Lower Equipment Capacity!

Buying energy-efficient equipment is not the only solution. No matter how energy-efficient your equipment is, it will not perform at its best if the duct system that is delivering the warm or cool air is leaky.

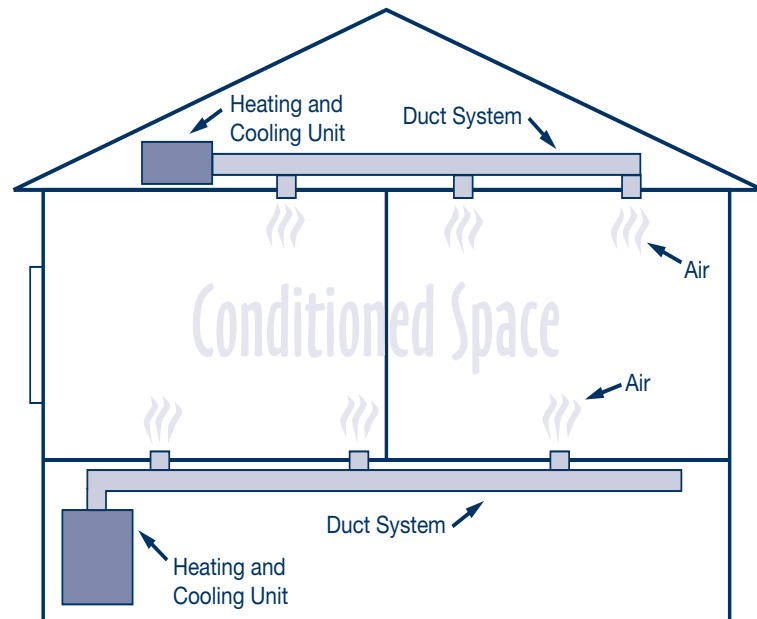
Knowing your duct system is the first step in analyzing how well it works. The HVAC system in your home works hand in hand with the duct system to provide proper airflow, heating, and cooling.

The ducts in your home should:

## Leak very little air

While no duct system is perfectly “air tight”, most air leakage comes from an accumulation of many small leaks in the duct system. By locating and sealing the most accessible leaks, most duct systems can be improved enough to meet the ENERGY STAR specification for Ducts. The specification is available on the Web site at [www.energystar.gov/ducts](http://www.energystar.gov/ducts).

The following diagram shows two common placements for duct systems.



Ducts can be located either in your basement, attic or in a **conditioned space**. The heating and cooling system is connected to the duct system enabling it to heat and cool your home. Since air is invisible, you cannot distinguish between efficient and inefficient ducts by simply looking at them. However, there are tests that a knowledgeable contractor can perform to determine whether your family will be more comfortable and safer with the ENERGY STAR specification for Ducts.

## Have adequate airflow

HVAC equipment that is operating as designed can provide proper airflow. Your duct system must then adequately deliver the proper amount of air to each room in your house. Many of the problems related to the HVAC system’s efficiency and energy usage, and your comfort and health are due to improper airflow.

## Be properly insulated

Industry standards for duct insulation varies, depending on the location of the ductwork in your home. Insulation is especially important if ducts are located outside the heated or cooled part of your home.

## Be sealed with proper materials

Not all duct sealing materials perform the same. You might find it surprising that a typical gray fiber backed duct tape should not be used to seal ducts. Proper sealant materials include an aerosol sealant, fabric mesh and duct mastic, or metal backed tape.

## Be tested for combustion safety

Make sure combustion appliances are not backdrafting into your home causing you to breath unhealthy air.

## Have diagnostic testing

To determine the amount of duct leakage, improper infiltration and combustion safety issues, diagnostic testing is recommended for proper analysis of your entire house. Testing equipment such as duct-blower, manometers and flow hoods are commonly used by professionally trained contractors. These tests indicate the severity of the duct problem in your home.

Qualified practitioners have the expertise to evaluate your duct system and to conduct the necessary tests to fix the problem. Technicians use diagnostic instruments to test air flow and duct leakage.

Being an informed consumer can help you pick the right person for the job. **When choosing a contractor, the technician should be able to answer the following questions to your satisfaction:**

- Have you been trained in duct sealing?
- Do you operate duct blower testing equipment?
- How do you seal ducts? Say no if they use duct tape.
- How long have you been in business?
- Can I see current proof of a valid contractor’s license, proof of coverage for workers’ compensation, and certificates of insurance coverage for liability and property damage?
- Are you a member of the Better Business Bureau?
- Can I get the name of 3-4 references and that I could contact about your work?
- Will you be supervising and/or present during repairs?
- What is the warranty for labor and parts?

Get Your  
Ducts Sealed  
Today!



Saving money and protecting your family are high priorities. Many factors affect the efficiency of your ducts such as climate, location of your ducts, and the amount of insulation around your ducts. Start Saving Today. **To learn more about ENERGY STAR specification for Ducts or to determine whether your home is a good candidate for duct sealing, visit [www.energystar.gov/ducts](http://www.energystar.gov/ducts)**