

# TOGETHERWESAVE EASY ENERGY TIPS

## Sealing Ductwork

Many Kentucky homes are wasting energy and valuable dollars because of leaks in the duct system.

In forced-air heating and cooling systems, efficiency can be improved by as much as 30 percent by sealing these leaks.

By eliminating leakage in the ducts, the home's heating and air conditioning system can provide comfort with decreased run-time. This will result in lower utility bills and improved air quality. It will also extend the life of the equipment.

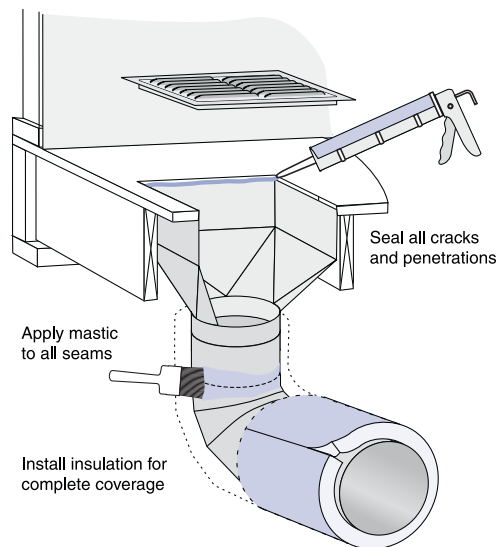
In most homes, the ducts are usually located in the attic, crawl space or basement.

Provided the ductwork is accessible, sealing it is a relatively simple procedure and often makes an immediate improvement in the circulation of conditioned air throughout the house.

This is accomplished by applying a substance called mastic with a paintbrush to every duct seam, with special attention paid to the return side of the system.

Mastic is a gray paste-like substance containing fiber, which is easily spread across the seams of the ductwork. It dries to a solid cement-like quality, providing a permanent solution to unwanted leakage on both the return and supply side of the ductwork.

Mastic can be purchased at companies that sell



wholesale supplies to heating, ventilation and air conditioning contractors.

Once the leaks are fixed with mastic, additional savings can be achieved by insulating the ducts located in unheated areas with either foil-faced fiberglass duct insulation or foil-faced "bubble wrap." The insulation is simply wrapped around the duct and tied or taped into place.

If the ducts are inaccessible, it's advisable to hire a contractor to conduct a pressure test with a special fan. This "blower door" test can determine if you have serious leakage. Some duct connections simply may have come apart.

In most cases, a little time spent addressing this issue can make a major difference in the energy efficiency of your home.

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Another key step is to seal the band joist. The band joist is the wooden beam just above the home's foundation. It sits atop the entire perimeter of the foundation. It's a major beam that all the first floor joists are connected to.

To do the job, cut 1- or 2-inch thick foam board pieces to insert between the floor joists, just above the foundation. Then seal the edges of the foam board pieces on all four sides with a bead of caulk or expanding foam.

Access doors to a crawl space should be insulated and made as air-tight as possible.

Install rigid foam board along all the walls, leaving a 3-inch gap at the top of the foam board to allow monitoring of any termite activity.

Each home is unique, but most homeowners can realize great gains in energy efficiency by sealing the crawl space beneath their house.