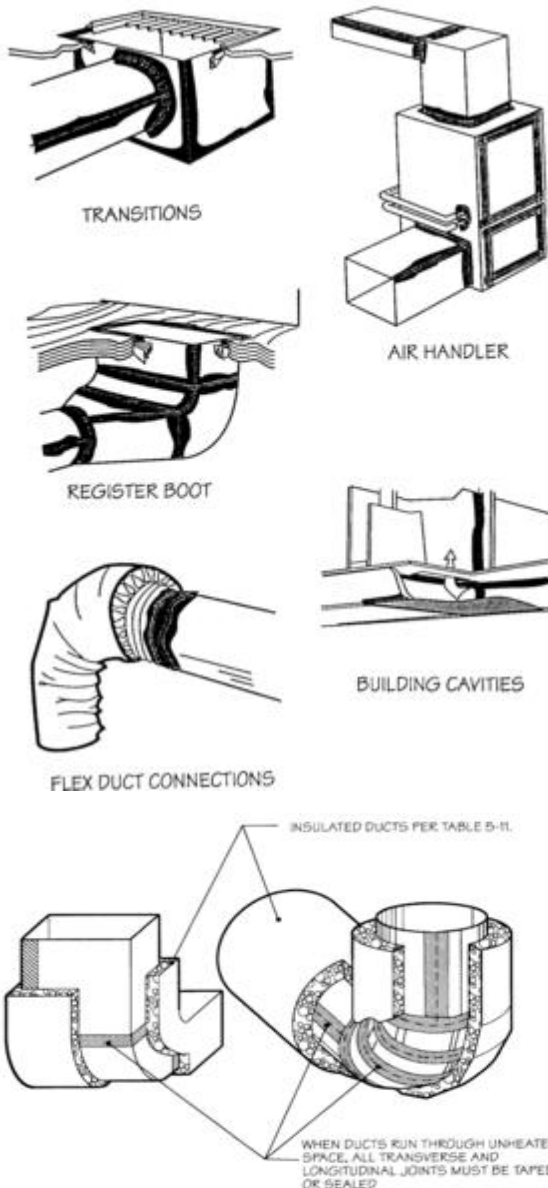


Understanding Duct Sealing:

The following information is offered to assist taxpayers with properly obtaining energy tax credits and is for educational purposes only. This information does not replace the assistance of a professional tax preparation specialist, professional accountant or attorney.

Most residences in the USA utilize some form of duct system to move heated or cooled air throughout the structure. Tests performed on ductwork by various energy agencies and professionals have shown that air leakage via ducts can be significant and are capable of adding a sizable cost to the annual energy bill. Ducts that are located in attics, crawl spaces or other locations exposed to outside air can be especially problematic since air leaks in the ductwork can introduce moisture, mold, pollen and other unwanted pollutants into the interior environment.

You can seal your ductwork to reduce, or even eliminate, air leakage if you use the right products in the correct manner. It is important to emphasize that you should not use the common gray duct tape or duck tape to seal your ducts. This type of tape is only a temporary solution in that the glue will tend to dry on the tape in a relatively short time and then the tape will pull away, rendering it ineffective. A better choice is to use the shiny aluminum tape that is commonly available at hardware and building supply stores. The best option is to use mastic, which is designed to be used to seal ductwork. Most energy programs recommend the use of water-based mastic. However, the black petroleum-based mastic will also work quite well. If you use the black mastic, be sure to open windows or doors to ventilate the area during installation. Water-based mastic does not off-gas petroleum distillates and is safer to use. Plus, water-based mastic can be cleaned with water.



If you look at the graphic on the left, the darker lines indicate the areas where mastic or aluminum tape should be applied. Basically, any seam or connection should be coated with mastic or have the aluminum tape. The mastic can be applied using a narrow paint brush. The water-based version looks similar to gray pudding and the black petroleum-based version can come in a sticky roll or in a bucket having the consistency of warm road tar. We suggest that you use an old long-sleeved shirt and gloves when applying mastic. A pair of safety glasses and an air filtration mask is also recommended, especially for the black mastic.

Some residential buildings have flex ducts, which resemble soft colored pipes with a large slinky inside. Flex ducts also need to be sealed. If you look at the lower graphic on the left you will note that all the seams in the metal ductwork that connects to the flex duct must be sealed, as well as where the metal ducts connect to the flex.

Be sure to save the receipts and/or paid invoices showing the purchase of the materials used to seal your ductwork. A percentage of the cost of certain materials will qualify for energy tax credits. Please note that the cost of labor is not allowed for energy tax credits.

Water-based mastic should be available from your local building supply or hardware store. If not, you can purchase water-based mastic from: www.HighEnergyBills.com

Graphics Courtesy of: EnergyCodes.gov