

Washington State Energy Code Requirements



Photo courtesy of The Energy Conservatory

Did you know that testing ductwork in your house is now required by the Washington State Energy Code (WSEC) if you are repairing or replacing certain parts of your heating or cooling (HVAC) system?

Your HVAC contractor must test the ducts in your home and provide the results to you and the building official that issued your permit. Once you have the results, you can choose whether or not you want the contractor to seal your ducts.

Some houses are exempt from these requirements. If your house has any of the following, you do not have to test your ducts:

- All of the ductwork is contained inside your house or less than 40 linear feet is outside of the conditioned space.
- The ducts have been previously tested and sealed.
- The ducts contain asbestos.

More information

For more facts about duct sealing, you can watch the video "Duct Sealing for Comfort, Energy and Indoor Air Quality."



This video can be found on our website:
www.energy.wsu.edu/code

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Benefits of Duct Sealing

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Why should you seal your ducts?

Sealing the ducts in your home is an easy decision that can help you reap several benefits.

Energy Savings

Duct sealing can help you save on your monthly heating and cooling bills, resulting in more money in your pocket. Leaky duct systems typically contribute to 20-40 percent of a home's heating and cooling costs. Duct sealing can increase a heating and/or cooling system's efficiency to a greater degree than upgrading to a high-efficiency furnace and with less of an investment.



Additionally, if you plan to install a new heating and cooling system, having efficient ducts may make it possible for you to downsize to a smaller, less costly system.



Improved Comfort

If you find that some rooms in your home get too warm while others stay too cool – or if you experience uncomfortable drafts – it might be due to leaks in your duct system. Sealing ducts can help keep the temperature even.

Cleaner Air

Sealing your ducts can also improve the air quality inside your home and safeguard the health of your family. Leaky ducts can cause the air in your home to carry pollutants like car exhaust, pesticides, insulation fibers, mold or mildew, and more. Duct leaks can also draw in combustion gases from fireplaces, wood stoves, gas and oil furnaces, and water heaters.

Help the Environment

When you seal the ducts in your home, it reduces the amount of energy your home uses. The less energy we use, the less pollution we create. If we all do our part to conserve energy, we will have a cleaner, healthier environment.

Cost vs. Savings

The cost of sealing your ducts will vary based on the market and the going rate of labor where you live. The type of existing ductwork system that you have in your house will also impact the cost of duct sealing.

Evaluating the payback is impacted by many variables such as: the climate where you live, where your ductwork is located, how frequently your heating and air conditioning equipment is running, and the cost of energy from your local utility.



In general, research proves that duct sealing has a quick payback and is one of the most effective energy saving measures you can perform on your home.

- National Renewable Energy Laboratory and U.S. Department of Energy (DOE) research concludes that the cost of sealing and/or insulating ductwork can often be paid for in three years from energy savings alone.
- According to a study by DOE's Energy Information Administration, duct sealing yields the greatest energy savings out of 12 measures studied – and it was the least expensive.
- Research by Lawrence Berkeley National Laboratory concludes that 25 percent of the energy typically used – and money spent – for heating and cooling is wasted through duct system energy losses in forced air distribution systems.