

## Inside Your Air Ducts

The air duct system within your home is responsible for distributing air (cold or hot) throughout your home and returning it back to your equipment so that it can be treated, heated or cooled again, and then redistributed. Clean, maintained and well-installed ductwork enables your heating and cooling system to run more efficiently and maintain consistent temperatures, while providing better overall comfort to you and your family.

Layers of dirt in ductwork can affect your operating costs and comfort. Most dirt accumulates in the return ducts of your system, which leads back to your heating and cooling system. The dirt that does not get filtered by your filter will blow right back into your home. Did you know that air passes through the duct system at an average speed of 1000 feet per minute? Air moving at that speed kicks up a lot of harmful contamination and sends it right back into your living and breathing space!

Dirty ducts will quickly clog up a furnace filter and cause your furnace or air conditioner to work harder. And a system that has to work harder means higher utility bills for you. This dirt build-up will also affect the longevity and performance of your equipment. As your system works harder it will also work less efficiently, breakdown more frequently and cause more wear and tear on the equipment, decreasing the life of your equipment.

Changing air filters on your heating and cooling system regularly can help prevent this build-up. Also having your air ducts professionally cleaned will also greatly improve the quality of air in your home.

Maintaining your ducts is also important. You should have your ductwork periodically checked by a professional heating and cooling technician for leaks. Leaky ductwork can cause your utility bills to be 20-30% higher than they should be. Leaky ducts will affect a system's ability to deliver even heating and cooling throughout your home.

Poorly installed ductwork will result in poor performance as well. It can cause bad airflow, leaky ductwork systems and higher than usual utility bills. For these reasons it is important to have your ductwork installed correctly by a qualified installation technician whether for retrofit or new construction.

A qualified technician will take into consideration the load size. They will look at factors such as square feet of your home, number of occupants, which direction the house is facing, shading around your home, the number of doors and windows and many other factors. This is important because undersizing ductwork causes the system to strain mechanically and can be noisy and oversizing a system costs more and does not maintain the desired airflow.

The condition of your ductwork plays a key role in the overall energy efficiency of your home's comfort system and affects how comfortable your home is. As a major part of your heating and cooling system, your ductwork should be cleaned, maintained and installed correctly. All of these factors will help ensure high efficiency equipment performance and equipment longevity, as well as decreased utility costs and increased home comfort.

Sources: [www.bayonet-inc.com](http://www.bayonet-inc.com)  
[www.energysaver.gov](http://www.energysaver.gov)  
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