How to Determine if the Ductwork Needs to Be Replaced in Your Home

Ductwork is the circulatory system of your HVAC equipment. Defective ducts can result in a variety of consequences, including loss of system efficiency with increased utility costs, unhealthy indoor air quality and inconsistent heating and cooling inside the home. Since the major portion of ductwork in most homes is hidden from routine sight, duct defects may go unnoticed by homeowners for long periods of time.

1

Evaluate the age of the ducts. Residential ductwork installed at original construction of the home was often designed and constructed for lowest cost and not intended to last the life of the house. The seals, joints and seams in original equipment ducts may be assumed to be deteriorating in as little as 10 years after construction.

2

Visually inspect the ductwork in areas where it is exposed, such as attics and crawl spaces. Examine the joints between spans of ductwork for deteriorating duct tape used as sealant during original construction and for disconnected spans. Look for streaks of dust radiating from seams in ductwork that indicate the location of air leaks, and for any evidence of rust and corrosion.

3

Check the air flow in rooms. Rooms with reduced volume of air flow may be served by duct segments that have become partially or completely disconnected or collapsed spans of ductwork. Temperature variations in air flow may be caused by air leaks in ductwork or by thermal loss from ducts with deteriorated insulation.

4

Schedule a duct blower test with an HVAC contractor. The definitive test for duct viability, this method utilizes a blower fan to pressurize ducts, pressure sensors inside the ducts and an air flow sensor in the blower. After the ductwork is pressurized to a standard level, the amount of air flow through the blower required to maintain pressure is calculated by a computer to arrive at an exact figure of air leakage in relation to total air flow through the system.

From：https://homeguides.sfgate.com/determine-ductwork-needs-replaced-home-64882.html