MyHomeWorks

Attic Insulation

Equipment Description

Heating and cooling your home is usually the largest portion of your utility bill. Sealing and insulating your attic can help keep these costs under control. Sealing prevents air from moving from your heated or cooled space into the hot or cold attic. Insulation limits heat flow between the living space and the attic. Heat naturally flows from a warmer to a cooler space. Insulating your home decreases heat flow and lowers your heating and cooling costs.

Types and Energy Impact

Most attic insulation is either blanket (batts and rolls) or loose fill. Batts are fitted between studs, joists and beams. This method works best for stud and joist spacing that is relatively free from obstructions. Loose fill is generally cellulose, fiberglass, mineral or wool and is good for adding to existing finished areas. It is also appropriate for irregularly shaped areas and for working around obstructions. An insulation's resistance to heat flow is measured, or rated, in thermal resistance or "R-value." The higher the value, the greater the insulating power. Properly insulating and air sealing your attic will help reduce your energy usage and decrease your carbon footprint. Attics are often one of the easiest places in a house to add insulation, especially if the existing insulation is below the recommended R-value.

Maintenance Tips

- Sealing: Make sure the home is properly sealed to prevent air flow from living space to unheated or uncooled space. Sources of air flow include attic entrance, recessed lighting, exhaust fans and plumbing vent stacks.
- Attic Access: A home's attic entrance (hatch, pull-down stairs, or a knee-wall door) is often uninsulated. A 1/4-inch gap around the perimeter of an attic entrance can potentially leak the same amount of air that is produced by a bedroom heating/air conditioning duct.
- Air Ducts: Properly insulating air ducts located in unheated or uncooled spaces such as attics, crawl spaces, garages, or unfinished basements can help improve a home's energy efficiency. Ducts are typically made out of thin metal materials that easily conduct heat. Uninsulated or poorly insulated ducts in unheated or uncooled spaces can lose 10 to 30 percent of the energy used to heat and cool your home. In addition, when ducts lose heat, rooms served by long duct runs can experience "cold blow" during the winter because they usually have lower heating-supply temperatures.
- Recessed Lights: Recessed lights need special consideration and the owner should consult the manufacturer's recommendations. In general, keep insulation three inches away from standard recessed light fixtures. Failure to follow these instructions can create a fire hazard. This does not apply to fixtures that are IC (insulation contact) rated.

Loss Prevention Tips

- Water: Check the attic ceiling for water stains or marks. They indicate roof leaks or lack of ventilation. Repairs should be made immediately to prevent damage to the house. Wet insulation is ineffective and can damage your home.
- Ventilation: Improper ventilation can lead to ice dams and trapped moisture. This can damage your home and ruin insulation. The most common mistake made by homeowners when working in their attic is blocking the flow of air at the eaves. Never cover attic soffit vents with insulation, use rafter vents and soffit vents to maintain airflow.