Granite Ridge Builders

BUILDING A
SOLID INVESTMENT

BLOWER DOOR TESTS

Professional energy auditors use blower door tests to help determine air tightness in a home.

How They Work

A blower door is a powerful fan that mounts into the frame of an exterior door. The fan pulls air out of the "envelope" of your house, lowering the air pressure inside. The higher outside air pressure then flows in through all unsealed cracks and openings. These tests determine the air infiltration rate of a building.

Blower doors consist of a frame and flexible panel that you can place in a doorway, a variable-speed fan, a pressure gauge to measure the pressure differences inside and outside the home, and an airflow manometer and hoses for measuring airflow.

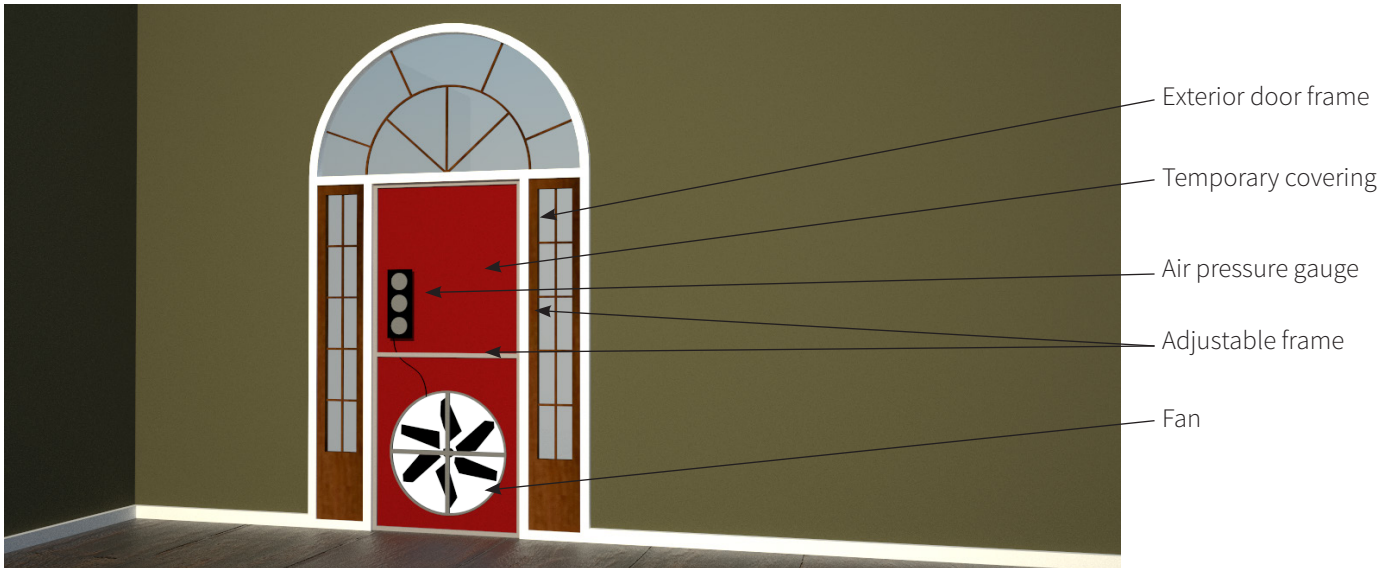
There are two types of blower doors: calibrated and non- calibrated. It is important that auditors use a calibrated door. This type of blower door has several gauges that measure the amount of air pulled out of the house by the fan. Non-calibrated blower doors can only locate leaks in homes. They provide no method for determining the overall tightness of a building. The calibrated blower door's data allows the auditor to quantify the amount of air leakage and the effectiveness of any air-sealing job.

What exactly is the home envelope?

The exterior of your home is also called the "envelope" or shell. The insulation, outer walls, ceiling, doors, windows, and floors all work together to control airflow in and out of the structure, repel moisture, and pre-vent heat from being lost or gained inside your home. A high-performance envelope helps to maintain a consistent temperature even under extremely hot or cold conditions.

Reasons for establishing the proper building tightness:

- Reducing energy consumption due to air leakage
- Avoiding moisture condensation problems
- Avoiding uncomfortable drafts caused by cold air leaking in from the outdoors
- Making sure that the homes air quality is not too contaminated by indoor air pollution



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