AIR LEAKS

Some amount of outside air is necessary to keep the indoor air quality at safe levels. However, controlling the amount and way in which air enters is important to maintain occupant comfort level.

ADVANTAGES

- Heating and cooling systems run most efficiently and save money and energy

HOW TO CHECK FOR AIR LEAKS

Basic building pressurization test
To do a building pressurization test, you will need to depressurize the building as much as possible and then check for leaks.

To depressurize the building (to increase infiltration through cracks and leaks for easy detection):
Step 1: Close all the exterior doors, windows and fireplace flues
Step 2: Turn off all combustion appliances (gas burning furnaces and water heaters)
Step 3: Turn on all the exhaust fans or use a large window fan to remove the air from the rooms

To check for leaks:

Use an incense stick or a lit candle. The air from the leaks causes the smoke or candle flame to waver, indicating the leak. When you find a leak, mark with a piece of chalk or light pencil mark.

Where to check for leaks:

- Indoor
  Gaps between the baseboard and flooring
  Gaps at the junction of the wall and ceiling
  Electrical Outlets
  Switch plates
  Baseboards
  Attic Hatches
  Wall or window-mounted air conditioners
  Anywhere that there is a pipe or wire coming in – like plumbing, cable or electric wires

- Doors and Windows
  Rattle test: If doors and windows rattle, it means that there is space around them for air leaks.
Paper test: Shut the door or window on a paper. If it slides out easily without tearing, there is a leak.
Weather stripping and caulk test: Improperly laid, worn out and misaligned caulk and weather stripping aids leaks.

- **Outdoor**
  Where two materials meet: ex: wood siding meets stucco
  Between the foundation and ground floor slab, or any structural intersections

Other ways of checking for leaks:

**Blower Door Test:**
All the air is sucked out of the house using a blower door apparatus, and professional energy auditors go around the house with a smoke torch to determine leaks.

The blower door test is included in some home energy audits. Sign up for a No Cost Energy Audit through CEA’s website [here](#).

**Thermal Detector:**
This instrument detects temperature changes. It has a light that that turns blue on detecting cooler air or red on detecting warmer air.

**HOW TO SEAL AIR LEAKS**
Once the source of air leaks are determined, they can be sealed by

- **Caulking**
- **Weatherstripping**
- Increasing or correct installation of [insulation](#)

Source: [www.energysavers.gov](http://www.energysavers.gov)