

DO MY DUCTS LEAK?

COMMON SENSE ANSWERS



Do my ducts leak excessively? *Most likely. ASHRAE says that 75% of all ducts in commercial buildings leak 10-25%. (That's 200-700% higher than ASHRAE's recommended standard of 3%!)*

To assess your situation, check those boxes which apply:

Evaluate ductwork construction:

- Do they use slip-and-drive connections on metal ducts?
- Do they use sheet rock, masonry for air distribution or ventilation shafts?
- Are there faulty or missing gaskets (can you feel air leaking)?
- Are there visible holes or gaps at corners, seams, connections or hangers?
- Is there pressurized external insulation – aka “the air mattress effect”?

Look at the rooms at the end of the hall (ie, far away from fan):

- Is there poor air flow in these rooms?
- Are these rooms too cold in the winter or too hot in the summer?

Look for uneven air distribution / pressurization issues within the building:

- Do some areas have excess air flow, while others areas are insufficient?
- Does airflow delivered vary upon time of year (summer vs. winter)?
- Are there issues with doors being difficult to open or close?
- Does the bathroom exhaust grille fail the “two-ply toilet-paper test”?

Ask about occupant complaints:

- Are there heating or cooling complaints?
- Are there complaints about moisture, mold, odor, or air quality?

If practical, ask about the fans (the #1 sign of excess energy consumption):

- Are they unable to setback the air handler at night or weekends?
- Do fans commonly operate at excessive speeds – ie wide-open?
- Have motors, pulleys, or sheaves been replaced to provide more airflow?

If you check two or more boxes there is a 90% chance your ducts leak excessively, and cost you money. The US Department of Energy says that sealing ducts is the most cost effective way to reduce HVAC costs. You can save money, with a good payback, while addressing other issues at the same time.

Next steps - do a leakage test, and if leaky, seal a section of ductwork.