

DRAUGHT FINDER

TEST | LOCATE | REPORT | RATE

10 Hilltop Rise, Farmhill, Douglas, Isle of Man, IM2 2LF
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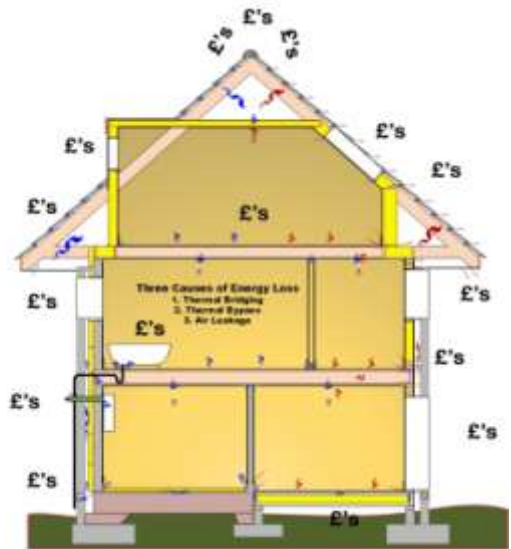
14. DIY Home Air Pressure Test

It's always cheaper to "reduce your need" rather than "buying more".

Air leaks in your home can increase your heating costs from 5% to 40%. With this simple do-it-yourself (DIY) home air pressure test, you can locate the biggest leaks and seal them.

It may not catch the smaller air leaks that our professional pressure test would, but it doesn't as much as the professional air pressure test.

This DIY test works best when it's cold outside and warm inside your home, as it's easier to "feel" where the air leaks are.



The DIY Home Pressure Test

1. Close up your house and turn off the heating and cooling sources. We'll be drawing air **INTO** the house during this test, so make sure you extinguish all sources of fire such as a fireplace, range cookers, or gas boiler or water heater. Close all windows and doors, skylights and all trickle vents above windows and the damper on the fireplace, (*or seal of the fire place by using a plastic bin bag taped to the surround - **Warning:** There is a risk of pulling soot down the chimney!*)

2. Turn **ON** all exhaust fans in your house. These are normally found in the kitchen (over hob), in bathrooms and utility rooms. If you don't have any exhaust fans, then open a window and set as large a portable fan in the window that will fit. Try to close up the area around the fan blades to keep the air flowing out, without letting more air in, say with a sheet of 25mm insulation board taped into the window opening.

3. First place to check for leaks is the fireplace. If there are leaks around the damper, you could be getting some nasty smells and soot coming into the house. If so, stop the exhaust fans and fix the damper.

4. With the exhaust fans on, search for leaks using a stick of incense. (**Warning:** *take care with these although they are smouldering it could cause a fire!*) These sticks give off a trail of smoke that will easily take off in any breeze from an air leak. You could also use a "wet hand". Carry a bowl of water with you and keep your hand damp while you run it around the windows, doors, outlets and switches. A cool breeze from an air leak will feel very cool if your hand is damp. (**Do NOT use a candle for the leak test due to the open flame - too much opportunity for an accident!**)

5. Check all openings for leaks: around doors and windows, electrical outlets and light switches, around ceiling light fittings, especially sunken down lighters, skylights, attic access doors, at the bottom, top and corners of walls, also at the floor to skirting joints.

6. Turn off the exhaust fans and fix the leaks, decorators caulk works wonders. But use foam for larger gaps taking care not to get any on the surrounding surfaces - it's a bugger to remove! Make sure you get the right type of foam for the job - some types can expand and enlarge a crack!



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- For windows, you will first find any draughts (air leaks) from the gaskets. Once you have repaired these seals, repeat the DIY test and look for leaks from under the window cill, the reveals between window frame and wall joint and same along the top of the frame. Do same test for doors too!
- Window Shrink Wrap (secondary glazing option) can also make a big difference in draughts and heating bills.
- For doors, you can buy foam weather stripping for the sides and top, but for a better longer lasting seal use the soft silicone pre-formed sealing strips. The seal should be used on the door faces that close together (face to face) otherwise it is likely to be pushed off!
- The bottom of outside doors are sealed with a special threshold strip - measure the opening size before heading to the hardware store.
- For power outlets use a kid's protective cover or plug an appliance in!
- Make sure your ventilation ductwork is sealed around when it penetrates the wall.
- Also check waste pipes passing through walls to outside and seal around with caulk on the inside. Check under kitchen sink, bathroom toilet and basin but importantly the bath waste by removing the bath panel - there will be a lot of air coming up through the hole!



7. After fixing the leaks, repeat. Turn the exhaust fans on once more and look for smaller air leaks. You may find "new" smaller leaks that were not noticeable when you had much larger leaks letting the air in.

Outside Air Leaks

Now that you are finished with the DIY home air pressure test, take a quick look at the **outside** of the house. First place to pay special attention to is the electrical outlets and pipes for electrical conduit. Make sure these are sealed. Any plumbing pipes that pass through the wall should also be sealed around. Also look for any cracks in the mortar, spaces between bricks, joints between different types of materials, etc. Caulking works well, though make sure you are using the correct type for the material you are working with. Expanding foam is also available and can be very helpful for larger openings.

You should notice a much warmer or cooler, draft-free home!

Warning: Don't be tempted to seal every air leak you find. Your house needs to be ventilated to remove moisture (the ventilation fans should do this if they have been sized correctly!)

If you find you have condensation or worse still mould forming in new places or far worse than before, the building is too tight and you'll need to provide a controlled ventilation system to prevent this.



Our Air Tightness Test will provide some guidance on just how tight your home is and whether you need to consider a ventilation upgrade depending on how tight you want to make your home!

Still have draughts ? - Call Trevor 435052 to arrange for our Combined Blower Door Test and Infrared Thermal Inspection where we will find more air leaks and other energy sapping thermal bypass and thermal bridging problems.

Find & Seal Air Leaks = SAVE Energy & Money



Trevor Clark

Independent - Qualified L1 Thermographer for Infrared Inspections
Building Air Tightness Testing to EN:13829 UK TSL1 Standards

Registered & Approved by Department of Infrastructure
Building Control & Standards for the purpose of Isle of Man Building Regulations 2014

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