

actsmart[®] draught proofing

Up to 25% of heat loss in a house comes from air leaks and draughts. Identifying and fixing draughts will help keep your home warm in winter, cool in summer and save you money on energy bills.

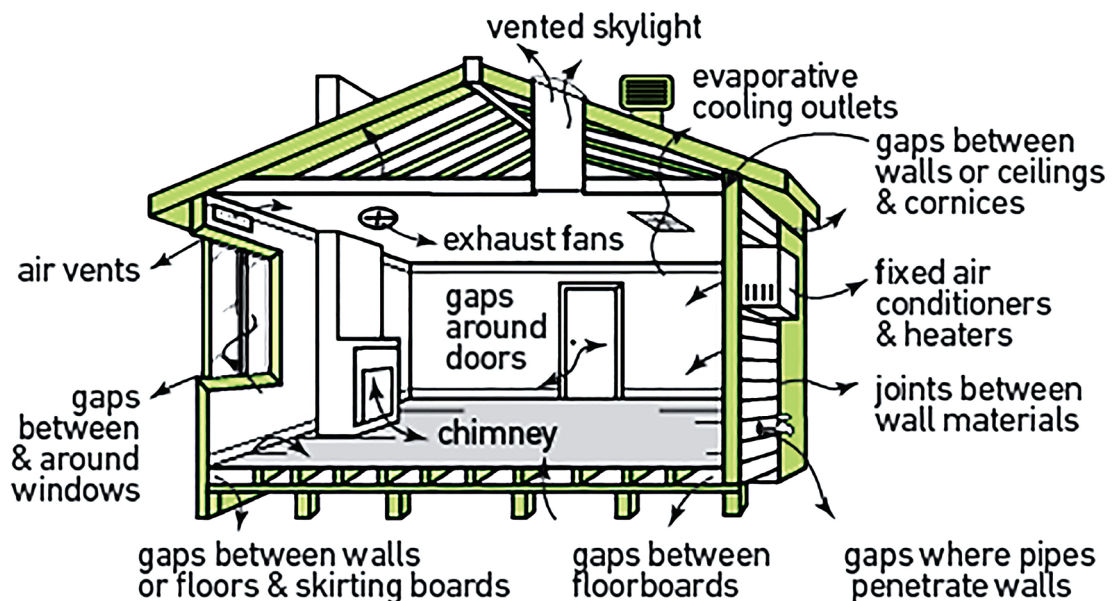


Draught proofing is one of the cheapest and easiest ways to improve the comfort of your home. It's also a great option if you're renting and wish to improve comfort levels with little or no fuss. Use this fact sheet to help identify and fix any draughts and unwanted air leakage.

Sources of draughts in a home

Even if your home is well-insulated, hot or cool air can leak in and out through gaps, cracks and exhaust fans. There are dozens of places where draughts could potentially be a problem. The main sources of draughts are shown below:

FIND & FIX GAPS



Source: Sustainability Victoria

Common draught areas

Inside your home, inspect around the following areas for any cracks and gaps that could cause air leaks:

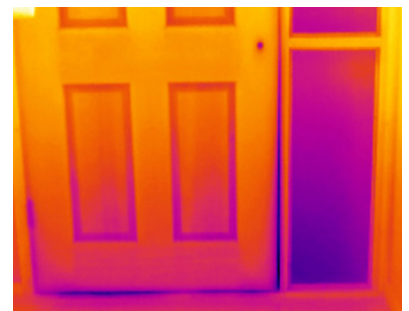
- ✓ Electrical outlets
- ✓ Switch plates
- ✓ Door and window frames
- ✓ Electrical and gas service entrances
- ✓ Baseboards
- ✓ Weather stripping around doors
- ✓ Recessed light fittings
- ✓ Architraves
- ✓ Fireplace dampers
- ✓ Attic hatches
- ✓ Wall- or window-mounted air conditioners
- ✓ Cable TV and phone lines
- ✓ Where dryer vents pass through walls
- ✓ Vents and fans
- ✓ Cornices and skirting boards

Electrical outlets

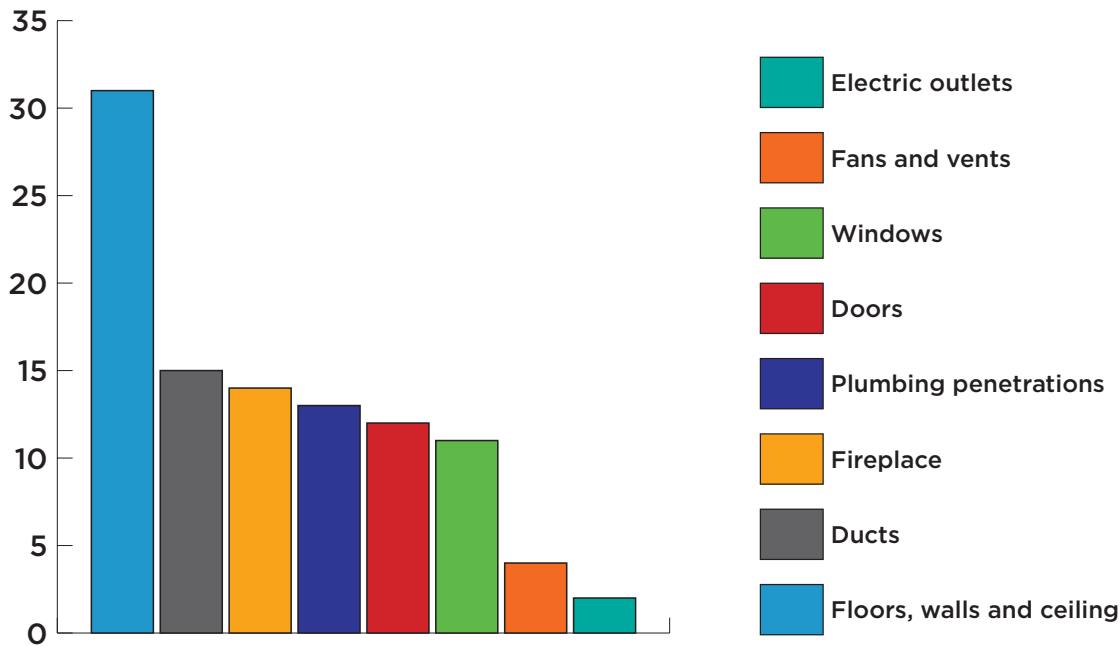
A common source of leaks, they can be difficult to trace because external wind loads can transfer the draught long distances from the original source. Sealing around switches and power points can help but this makes them difficult to remove for maintenance. Draught-proof building wraps in cavities or under cladding are ideal but are difficult to retrofit unless recladding. Wraps should also be breathable to avoid dew-point formation.

Breathable wraps allow some infiltration under wind pressure but, when combined with well fitted bulk insulation, provide the best solution. Where this is unachievable, a qualified electrician may be able to fit self-adhesive seals to the back of plates or seal outlets with spray foam injected into the gap.

Thermal imaging detects the radiation from a surface, helping to identify gaps and poorly insulated areas.



Percentage of air leakage in a typical cool or cold climate home:



Source: Sustainability Victoria

National building regulations (Building Code of Australia) have mandated minimum thermal comfort levels since 2003 and have generally led to improvement in the level of sealing in new homes. However, standards of air tightness are not mandated nor tested and certified even though additional sealing can deliver cost effective results in climates such as ACT where significant energy is spent on heating.

The best time to air seal your home is during construction or renovation.

The vast majority of Australian houses would benefit from improved air sealing.

Common products and applications

Sealant



Use a caulking gun to apply sealant and always read the manufacturer's label, wear gloves and use eye protection if necessary.

Used For:

- ✓ Skirting boards
- ✓ Architraves
- ✓ Cracks in walls
- ✓ Window frames
- ✓ General gaps

Expandable Foam



Can be very messy so be cautious in application.

Used For:

- ✓ Large gaps
- ✓ Hollows
- ✓ Cavities (eg around fire places)

Foam Core Rod



Different sizes allow different sized gaps and vents to be blocked.

Used For:

- ✓ Large gaps
- ✓ Vents

Door Bottom Seals



- Door seals come in two main install types, stick-on or screw-in. Screw-in seals take more time to install (since they have to be screwed on) but generally last longer. They are therefore better for frequently used doors.
- Door seals come in a variety of sealing types with brush and P.V.C (pictured) being the most common. Select a type that will provide a close fit to the floor surface, and use heavier duty construction for outside doors.

Used For:

- ✓ Doors

Draught excluder



Fit draught excluder to exhaust fans and tactics or replace with a self-sealing model

Used For:

- ✓ Exhaust Fans

Weather Seal



- A good seal is achieved where the seal compresses between 10–30%.
- Ensure all surfaces are clean prior to fitting.
- If the door or window does not close properly, try another seal.
- If the gap thickness varies around a window or door, try a thinner door seal and add additional layers of weather strip in areas with larger gaps.

Used For:

- ✓ Doors
- ✓ Windows

SAFETY FIRST

Improving the air tightness of your home will make it more energy efficient and allow you to control the air movement in your house. However, it is important

that you maintain safe indoor air quality by naturally ventilating the space with the air outside.

If your house is extremely well draught sealed, consider seeking advice on air quality guidelines.

For more ideas, tips and information

visit: actsmart.act.gov.au
email: actsmart@act.gov.au
or call: 13 22 81

Some work in the ACT must only be carried out by a licensed person. For more information on licensing, technical standards and other regulations that may apply, visit www.environment.act.gov.au.

make (the) change