

# Draft Proofing

## Finding and Fixing Air Leaks in Your Home

### What you will need

- Access to basement
- A ladder
- Flashlight
- Incense sticks
- A piece of paper

### What to look for

1. Look for light from the outside coming through joints in the wall.
2. In cold weather feel for drafts.
3. If uncertain of where drafts are originating, slowly move a lit incense stick around the edges of all windows and doors; if the smoke drifts to the side, it indicates an air leak that needs to be sealed.
4. Check all areas where pipes, wires, vents, etc. are entering/leaving the house.
5. Check if the original caulking is cracked; it can be re-caulked..

### Basement

- Check for any cracks that allow daylight to enter your basement, especially around foundation lines.
- Thoroughly check around all windows and doors. Leaks can occur around the casing or within the window or door unit itself. Especially check in areas where the cable or phone company has run lines through window casings.
- Check for any cracks where the floor and wall meet and where the ceiling and wall meet.
- Look around all pipes and vents where they go through any wall and seal any cracks around them. Also, seal openings around vents or pipes where they go up between floors.

### Kitchens, Bathrooms, Bedrooms, and Living Areas

- Thoroughly check around the framing for all windows and doors.
- To ensure windows and doors are closing tightly: place a piece of paper on your window sill or under the door, and then close the window or door on the piece of paper. Once closed, try to pull the piece of paper out. If it easily slides out without folding or tearing, there is a big enough air leak that you should install a new threshold and/or weather stripping.
- For rooms with sinks: Under the sink, check to see if there is a gap around the pipes where they go through the wall. If there is a space, seal it up.
- Check for air leaks along baseboards where the board meets the wall and the floor. It is easy to caulk along all outer wall baseboards.
- Air leaks can also occur where a hole has been cut in the wall or ceiling to install a switch, outlet, or a light. After removing covers, look for any locations where there is a large gap between the surface and the electrical box, This gap should be filled. **If you are sealing around outlets or light switches be sure to turn off the power during application and dry time of your product.**

## Outside your home

- Check around all windows and doors for gaps and cracks where two surfaces meet. These joints are easily sealed with caulks and foam sealants. **Use flexible, exterior caulking.**
- Look for gaps around pipes and vents and seal any holes or gaps with a caulk or foam sealant, **again making sure that your product selection can be used for exterior applications.**
- If your home has wooden or vinyl slat siding, check for gaps along the corner board (the vertical board that covers where the ends of the siding meet on the corner of your home).
- Check along the foundation line of your house for cracks that can be sealed.

NOTE : External caulking should focus on reducing moisture entering the home. Most siding is designed to vent thus sealing it will not stop drafts. For more information see: <http://joneakes.com/cgi-bin/getdetailscals.cgi?id=2043>

## Additional tips

- Mark all the leaks you find using painters tape or sticky notes. Then go back and seal.
- While inspecting your home, look for areas where two unlike materials join together. This indicates that there is a break in surfaces where air can easily travel through if not properly sealed.
- Air leaks are more easily felt in the winter, with a "draft" of cold air leaking into the house.
- If you have a fireplace or woodstove, make sure the damper is tightly closed when not in use. Some options to reduce drafts coming in the chimney include installing glass fireplace doors that close snug, or installing a chimney balloon.
- If you have an unused chimney, be certain to seal it with a chimney cap.
- Use adhesive foam weather stripping to seal around the hatch of your attic (as you would a door).

## Choosing the Right Product

• **Gaps and cracks:** When sealing smaller air leaks inside the home, here is an easy guide for the products to use:

- Gaps up to 1/2": Caulk (ask for a water soluble product for do it yourselfers).
- Gaps up to 2": Latex foam sealant
- Gaps over 2": Polyurethane foam sealant

• **Windows:** You can quickly seal around windows using caulks and weather-strip tape. You can also apply window film in the winter. If considering replacing your windows, ensure your selection is Energy Star certified for your climate zone.

• **Doors:** As with windows, sealing around doors is quick and easy. Use caulks and weather-stripping to seal the perimeter of the door, and install a threshold to prevent air from leaking from under the door.

• **Baseboards:** In older homes, it may be useful to take off the quarter round and fill the gap behind with backer rod. If the draft is small, use clear caulk to seal the cracks between the floor and baseboard and the top of the quarter round and the baseboard.

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