

# **Homeowner's Guide to Ventilation**

*This document will introduce you to the basics of home ventilation. Once you understand them, you'll know why ventilation is important, how your home is ventilated, and what you need to do to maintain a healthy environment.*

## **Good ventilation is important**

In any home, good ventilation is important because it helps protect your health *and* your home. Good ventilation is as critical to your comfort and safety, as a reliable heating system, smoke detector or roof. Good ventilation protects you, your family, and your guests from unpleasant odors, irritating pollutants, and potentially dangerous gases like carbon monoxide. Good ventilation also minimizes the likelihood of the growth of mold and mildew, which can damage your home and may cause allergic reactions in certain individuals. Good ventilation protects your home from damage by eliminating excess moisture from the air. Too much moisture rots window sills, peels paint and invites insect infestation. Damp insulation in walls and ceilings means lost heat, higher fuel bills, and destructive mold growth.

*Your new home has been built to today's high energy code standards. The leaky, cold, drafty homes of old, have been replaced with well insulated, well sealed, energy efficient homes of today. Ventilation occurred naturally in old homes through leaks and drafts. Today's tight homes require good ventilation to bring fresh air into the home.*

## **Ventilation means fresh air**

Ventilation supplies fresh air to your home and dilutes or removes stale air. There are many ways this can happen. For example, opening windows to air out your home can supply fresh outdoor air that dilutes stale indoor air. Turning on the fan over the kitchen range or in the bathroom removes odors and moisture. Whole house fans provide general controlled ventilation of your home.

There are several ways to identify if you have a ventilation problem. Do you have condensation forming on the inside of your windows? Is there a musty odor or mold and mildew in your closet or bathroom? These conditions are indications that your ventilation needs attention.

## **Your home's ventilation**

While just opening a window may seem like an easy, low-cost way to provide fresh air, your home has been built with several fans to make sure the air goes where it is needed. Your home is equipped with a whole house fan connected to a 24 hour timer that has been pre-programmed to run at specified times to provide enough general fresh air for the typical lifestyle. Your home has also been designed with exhaust fans in the bathrooms and kitchen range to take care of individual ventilation problems.

## **Ventilation basics**

There are three ways to ventilate your home.

*Windows*

*Spot ventilation*-for localized pollution sources

*General ventilation*-to dilute pollutants from sources that exist in many locations or move from place to place.

General ventilation has been provided by your whole house, exhaust-only, fan located in your laundry room. General ventilation is essential, but spot ventilation is also needed in those places where strong sources are located, such as bathrooms and kitchens.

### **Spot ventilation**

Spot ventilation uses exhaust fans to collect and remove moisture and pollutants before they spread throughout your home. The exhaust fan is generally turned on only when the source is producing pollutants. Bathrooms and kitchens produce high levels of moisture and odor and need to ventilate properly to avoid problems to your home.

### **General ventilation**

General ventilation is provided in your new home through your whole house fan. The whole house fan will run automatically, and is controlled by a 24 hour timer. General ventilation is designed to control pollutants and moisture. General ventilation mixes fresh outdoor air with stale indoor air to lower the concentration of pollutants. Fresh air is provided by a fan, which exhausts stale air from the house, and draws fresh air inside through “trickle-ventilator ports” in some of your windows. Your general ventilation (whole house) fan timer has been pre-set to run during the peak hours for producing moisture and odors. If you notice condensation on your bedroom windows, you should leave the bedroom door open to improve airflow. If this does not reduce the problem, consider adjusting the timer on the fan to run longer to remove the moisture in the air. We have preset the timer for the typical lifestyle; your lifestyle may require adjustments to the timer. Your window “trickle-ventilator ports” need to be open (full or partial depending on your conditions) in order for the whole house general ventilation can work.

### **Ventilation adjustments**

By using your spot and general ventilation systems properly, your home should remain moisture and odor free. You may find that you need to make adjustments in your timer between the summer and winter months to provide the necessary ventilation for a comfortable home. The timer on your whole house fan can be adjusted by moving the pins on the dial to cause the fan to run longer or shorter. Remember, cooking, bathing and breathing cause an enormous amount of moisture to be released into your home, it is very important to control this moisture with good ventilation.