



## INDOOR AIR QUALITY

### WHY IS INDOOR AIR QUALITY A GROWING PROBLEM IN OUR HOMES AND OFFICES?

Our homes and offices are becoming “tighter” with less free air movement with the outdoors. This is due to:

- Improvements in building techniques and styles (concrete slab-on-ground construction), producing “tighter” buildings;
- Changes to building regulations to increase energy conservation (insulation and design regulations);
- Demand for greater comfort during very warm or cold periods;
- Need to reduce the intrusion of external noise and/or air pollution;
- Increased demand for privacy; and
- Increase demand for security.

### INDOOR AIR QUALITY FACTS

- The U.S. EPA studies show that indoor air can be 2 to 5 times more polluted than outdoor air.
- We require between 8,000 and 10,000 litres of air each day.
- We spend more and more of our time indoors. More than 90%, according to the EPA.
- Moisture a key ingredient in indoor air pollution, is generated mainly from our activities in the home. These activities include: Cooking, Washing, Bathing, Respiration, and Perspiration (adults add about 2 litres of moisture to the airstream every day), etc.
- Outdoor Pollutants (car fumes, pollen, dust, etc.) can also enter the home and become concentrated there.

### WHY IS IT IMPORTANT TO VENTILATE?

- 1.) Assists in controlling relative humidity which controls:
  - Molds
  - Dust mites
  - Rust
  - Pests / Insects
  - Reduces lifetime of airborne viruses and bacteria.
  - Controls offgasing from building materials and furnishings.
  - Overall health
- 2.) Dilutes and removes harmful airborne pollutants, and
- 3.) Replenishes oxygen levels.

### WHY NATURAL VENTILATION DOESN'T ALWAYS WORK!

(Using windows and doors for ventilation)

- Mother Nature is unpredictable, ie. too windy, no breeze, too cold or hot,
- Poor location of doors and windows often restricts good cross ventilation;
- Indoor temperature control is lost when windows and external doors are left open,
- Windows don't filter (dust, pollen, outdoor pollution and noise), and
- Home Security can be compromised