## **Indoor Air Quality/Air Purification System**

Read any of the national housing magazines and it's there. Some of your hometown and national newspapers have had stories on it. Most recently, some investigative news shows on television have aired stories on it. What is it that we're talking about? Indoor Air Quality (IAQ) and the affect it has on your home and family.

In the last several years, a growing body of scientific evidence has indicated that the air within homes can be more seriously polluted than the outdoor air in even the largest and most industrialized cities. Other research indicates that people spend approximately 90 percent of their time indoors. Therefore, for many people, the risks to health may be greater due to exposure to air pollution indoors than outdoors.

Poor indoor air quality occurs as a result of inadequate ventilation by not bringing enough outdoor air inside to dilute emissions from indoor sources and by not emitting indoor air pollutants out of the home. High temperature and humidity levels can also increase concentrations of some pollutants. In today's energy efficient homes, higher levels of insulation, house wraps, and tighter windows, doors and exterior walls all reduce heating and cooling costs, while at the same time decrease the amount of fresh air entering a home. Thus, the consequence is minimal air exchange that can contribute to excess condensation and poor indoor air quality.

Inadequate indoor air exchange and poor indoor air quality can show itself in many ways. Excess humidity can be the first sign by showing up on the interior of windows in the form of condensation. Under the wrong circumstances, left unchecked, moisture-laden air can infiltrate wall and ceiling cavities and potentially cause structural damage. Smelly or stuffy air is an obvious sign, as well as mold and/or mildew formation anywhere within the home.

While indoor mold always has been a problem, it has been aggravated by changes in construction techniques brought on by the energy crisis of the 1970's. Efforts to create energy efficient houses without accompanying efforts to regularly exchange the air inside have been linked by the American Lung Association to a dramatic increase in cases of asthma in the last three decades.

Another sign of polluted indoor air is a phenomenon known as "ghosting". Ghosting can appear as black, gray and/or brown streaks above heating elements, and on walls and/or ceiling, following wood framing members. Ghosting occurs when highly contaminated air is heated and circulated, and then is molecularly attracted to slightly cooler surfaces, such as areas where wood framing members are located. Although causes of contaminates for ghosting are numerous, the most common are candle soot emissions, cigarette smoke and improperly adjusted or unvented gas appliances.

Needless to say, the potential for health related problems exists with poor indoor air quality. The Environmental Protection Agency (EPA) ranks indoor air quality as a major concern, because if left unchecked, problems can show up as respiratory in nature, and can be most vulnerable to people with allergies.

We consider air exchange and indoor air quality to be a very important issue that must be addressed. We offer a whole house Broan, Guardian Plus, HEPA Air Purification System as an option we strongly recommend you consider. Our research in various systems shows this system to be ideal for the task of improving indoor air quality.

We realize this system represents an added cost, but we strongly believe that consumers will be anxious to have the protection this system provides for what is nearest and dearest to them – the health of their families and their homes.