

# SEK Heat & Air's HVAC Q&A

*By Chris Cotter, General Manager – Adapted from articles published in the SEK Q&A Times*

## *Question:*

Why is indoor air quality important, and how can I control it?

## *Answer:*

60,000,000 people in the United States are affected by allergies, and mold is one of the most common allergens. The dark, cool and moist surfaces that typically exist in an HVAC system are very favorable places for mold growth. Applying **UV light** in these vulnerable areas can make a huge difference in the spore counts in the air.

By reducing the density of mold spores, the indoor air quality is enhanced and allergy symptoms reduced. Fresh outside air is healthy to breathe, in part, because natural UV from the sun controls the level of airborne microorganisms. With a UV system installed in your HVAC system, the numbers of airborne bacteria and viruses that cause colds and other illnesses will be reduced as the air is circulated through the system.

(That smell when the AC turns on, especially after it has been off for awhile) What is it? Chances are its MOLD, and those mold spores spread around, landing everywhere in the house. Or, if mold is growing in a damp place elsewhere in the house, the air conditioner helps distribute the spores as the air is recirculated. UV (Ultraviolet) can play an important-if not vital- role in controlling home damaging mold. As insurance companies raise rates and even exclude mold damage from their coverage, UV can be a big help.

**Air filtration** plays another big role in indoor air quality. The EPA considers a MERV 11 filter a premium performance filter for residential applications. They are 99% efficient on pollen and many other irritants such as dust mite allergens. A UV system uses about the same amount of electricity as a standard light bulb. Yet it, along with a MERV 11 filter, can help your HVAC system increase its efficiency - so you may use less power overall. When mold becomes established on cooling elements it begins to insulate it from the passing air. This makes the heat transfer from the air to the elements more difficult. When this happens, the HVAC system begins to run a little longer and cycles more often to accomplish the same temperature setting. This obviously uses more energy and in addition, increases wear and tear on the system.