

S&S Air Conditioning

Cleaning the Air

By Cindy Sharpe

When most people think of central air conditioning systems, they think of heating and cooling. But today's air conditioning systems are as sophisticated as today's homes; they are capable of doing so much more than just temperature regulation.

True, a homeowner expects a builder to install a unit that will keep the home cool or heated; however, savvy builders are realizing that offering homeowners air conditioning options will not only make their customer happy, it also provides a profitable revenue stream to the builder.

Dave Martin, general manager of S&S Air Conditioning serving West Central Florida, is very familiar with how air conditioning upgrades can add to the bottom line. His company founded its air conditioning division in 1994 and since then he has seen the business flourish.

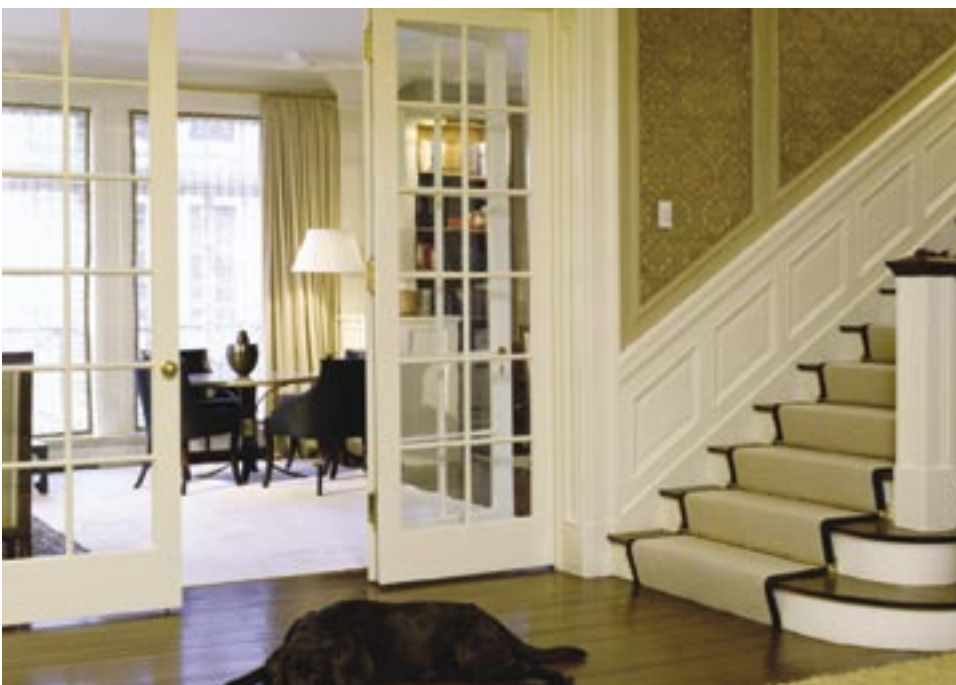
"It's amazing how easy it is to sell an air conditioning upgrade... all you have to do is talk to the family, and you'll learn that they not only want a comfortable home, but they want a healthy home and an energy efficient one, too," Martin said. "Air conditioning upgrades allow a builder to give the homeowner what

they want, while providing the builder an opportunity to increase revenue."

Take for example, heating and cooling. Gone are the days when only one room thermostat controls the temperature for the entire home. Today's advanced systems offer zoning systems that allow for rooms or areas in the home to be independently controlled. So unoccupied rooms can be set higher, while busy rooms, such as the kitchen or family room, are set cooler.

"A zoning system not only gives the homeowner greater flexibility for controlling the comfort of their home, but it is an excellent energy saving feature. Why cool the entire home to one set temperature if you are not using the entire home?" Martin said.

Another energy saving option for homeowners is a programmable thermostat. This advanced thermostat allows the homeowner to set "routines" for the heating and cooling of their home. For example, when you leave the home for work, you can set the thermostat's "routine" to raise the temperature around the time the homeowner leaves, as the home will be unoccupied. But a half an hour prior to the homeowner returning home, the thermostat can be programmed to lower the temperature automatically, so that





when the residents re-enter the home, it is at a comfortable temperature.

Programmable thermostats provide homeowners another energy saving feature... a convenient way to save on cooling and heating costs.

Beyond temperature control, air conditioning options offered today help to keep homes healthy. Today's homes are built nearly airtight, which does not allow for fresh air circulation inside the home. The result is a home with "polluted air," according to the Environmental Protection Agency. Inadequate ventilation can increase indoor pollutant levels by not bringing in enough outdoor air to dilute emissions from indoor sources and by not carrying indoor air pollutants out of the home. High temperature and humidity levels can also increase concentrations of some pollutants.

According to the EPA, in the last several years, a growing body of scientific evidence has

indicated that the air within homes and other buildings 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. Thus the risks to health may be greater due to exposure to air pollution indoors than outdoors.

People who may be exposed to indoor air pollutants for the longest periods of time are often those most susceptible to the effects of indoor air pollution. Such groups include the young, the elderly and the chronically ill, especially those suffering from respiratory or cardiovascular disease. People exposed to poor indoor air quality may complain of chronic allergies, sinus problems, eye problems or breathing problems such as asthma.

Some experts believe that the increase in the number of asthma sufferers may be due to the airtightness of today's buildings. Asthma is a major

public health problem in the United States and, according to the medical community, asthma has been on a steep rise since 1980. Indoor allergens and irritants can play a significant role in triggering asthma attacks. Though many cases of asthma probably go undiagnosed, health officials estimate that at least 20 million people in the U.S. have asthma, including 6.3 million children. As a matter of fact, asthma is the most common chronic childhood disease today.

Homeowners need to recognize potential asthma triggers in the indoor environment and reduce their exposure to those triggers. Some of the most common indoor asthma triggers include secondhand smoke, dust mites, mold, cockroaches and other pests, household pets, and combustion byproducts.

An effective approach to lowering the concentrations of indoor air pollutants in a home is to increase the amount of outdoor air coming indoors. Most

home heating and cooling systems, including forced air heating systems, do not mechanically bring fresh air into the house. Advanced designs of new homes are starting to feature mechanical systems that bring outdoor air into the home.

According to the EPA, if too little outdoor air enters a home, pollutants can accumulate to levels that can pose health and comfort problems. Unless they are built with special mechanical means of ventilation, homes that are designed and constructed to minimize the amount of outdoor air that can “leak” into and out of the home may have higher pollutant levels than other homes.

“When we speak to our customers, we often find that many people need a healthier home due to allergies or other medical conditions. Most often

they are not aware that a healthier home is easy to achieve, because there are a multitude of products available that can circulate and clean the air,” Martin said. “Some of these advanced air cleaning systems work like ‘electronic indoor Swiffers®,’ taking irritants and pollutants right out of the air even before they get indoors.”

Energy recovery ventilation systems provide a controlled way of ventilating a home while minimizing energy loss. They reduce the costs of heating ventilated air in the winter by transferring heat from the warm inside air being exhausted to the fresh (but cold) supply air. In the summer, the inside air cools the warmer supply air to reduce ventilation cooling costs.

The decision to use whole-house ventilation is typically motivated by



concerns that natural ventilation won’t provide adequate air quality. Whole-house ventilation systems provide controlled, uniform ventilation throughout a house. These systems use one or more fans and duct systems to exhaust stale air and/or supply fresh air to the house.

Most energy recovery ventilation systems can recover about 70–80 percent of the energy in the exiting air and deliver that energy to the incoming air. However, they are most cost effective in climates with extreme winters or summers (like Florida), and where fuel costs are high.

Another means to effectively clean the air is by installing an Ultraviolet Air Treatment System that will kill a high percentage of microorganism contaminants, such as mold, in the air passing over it. This system continuously emits high-intensity ultraviolet (UV) energy to kill airborne bacteria passing by the UV light.

When a U/V air treatment system is paired with a high-efficiency air filtration system that includes an electronic air cleaner, the result is dramatically “scrubbed” air throughout the home.

According to the EPA, air cleaners may reduce the health effects from some particles – small solid or liquid substances suspended in air, such as dust or light spray mists. Some air



cleaners, under the right conditions, can effectively remove certain respirable-size particles (for example, tobacco smoke particles). These invisible particles are of concern because they can be inhaled deeply into the lungs. Removing such particles may reduce associated health effects in exposed people. These effects may range from eye and lung irritation to more serious effects such as cancer and decreased lung function.

The effectiveness of an air cleaner depends on how well it collects pollutants from indoor air (expressed as a percentage efficiency rate) and how much air it draws through the cleaning or filtering element (expressed in cubic feet per minute). A qualified air conditioning technician can help a homeowner find the right air cleaner for their needs.

“These air cleaning and ventilation systems can make a dramatic difference in the air quality of a home,” Martin said. “Most families with children are concerned about indoor air quality, so when they are appropriately educated about the systems and products available to them, they can be very receptive to any number of air ventilation or air cleaning upgrades.”

“Home buyers know that they want a comfortable home, a healthy home and an energy efficient home, but they are not sure what technology is available to them to help them meet these needs,” Martin said. “Here’s where a builder, working with a qualified, professional air conditioning contractor, can not only meet – but exceed – their customer’s needs.”

S&S Electric prides itself on being a “multi-functional” subcontractor that combines electrical, air conditioning, and home communications and entertainment installations.



Builders can greatly improve the process, Martin says, by seeking out and working with subcontractors that can provide a wide range of products and services from a single organization.

“The time to be talking about air conditioning upgrades is immediately after the sale,” says Martin. “We don’t expect builders to become experts in the HVAC industry, or even to make recommendations to their clients. We want to work together with them to do that. But if they refer the client to us early on to discuss choices and possibilities, then we can put together a home air conditioning package that will not only excite the buyer and add value the buyer receives from the builder, but it will also add substantially to the project’s bottom line.”

To learn more about S&S Electric, and the array of value – added services they provide to the building industry, visit them online at www.ss-electric.com, or call (800) 762-3056.



Announcing S&S Air Conditioning

The S&S Electric management team and staff take the business of indoor air comfort and quality seriously. They realize that whether you are a home owner or builder, you want your customers and families to have a pleasant, comfortable and healthy home environment. S&S Electric has been installing air conditioning systems since 1994, and because of the growing demand for quality and technically advanced air conditioning systems, the company has formed S&S Air Conditioning to focus solely on providing indoor air comfort and quality. Home buyers and builders will continue to receive the same quality service and products that they have come to rely on, and will continue to work with the same management team whom they have forged working relationships with. For more information, visit S&S Air Conditioning online at www.ss-airconditioning.com or call 1-800-762-3056.

