HOME AND GARDEN COLUMN

AIR CONDITIONING

Behind the scenes, day after day, your air conditioner keeps you cool during summer heat and removes gallons of moisture from the air. If you have to replace a unit that is not working or have an older unit that needs service, consider replacing it with a new Energy Star air conditioner that will save you money as it keeps you cool.

Talking to a contractor about air conditioners may seem like speaking a foreign language. Know a few key facts before shopping around.

HVAC contractors are heating, ventilation and air conditioning (HVAC) specialists.

Air conditioners do more than keep you cool. They also extract moisture from the air removing humidity. The amount of moisture in the air is measured as relative humidity.

Your air conditioner is an important tool in helping to prevent problems with mold growth on walls, upholstery, leather and other surfaces that collect dust and dirt. Since moisture is the key factor, keep relative humidity low. Most people feel comfortable between 30% and 50% relative humidity. If the relative humidity rises, there is more moisture available in the air to promote the growth of mold and bacteria. They grow well at temperatures above 70° and relative humidity greater than 60%.

The SEER or sensible heat ratio of the replacement unit describes the total cooling output during normal usage divided by the amount of electricity used. Minimum SEER allowed by Florida Building Code is 10, but a higher number is a good investment. In this case, bigger is better. Older units are likely less than 8 and some are now made up to 17 or higher. Bigger is better, but it also costs more.

Another thing to consider when shopping for an air conditioner is the SHR or sensible heat ratio. This number is rarely on marketing brochures so ask the contractor for written verification from the manufacturer. The SHR describes the moisture removing capability of air conditioning system. Look for a SHR of 0.7 or less. A SHR of 0.7 means that 70% of the air conditioning load is used for cooling and 30% is used to dehumidify the air. In Florida, we want units that use a greater percent of the energy to remove moisture from the air and therefore have lower SHR numbers. In this case, lower is better.

When selecting an air conditioner, ask questions to get one properly sized for your home energy needs. The SEER, SHR and the number of tons of cooling to do the job need to be balanced so you don’t have problems with mold and mildew. Size does not pertain to the physical dimensions of the unit but the system tonnage. Again, bigger is not better.

If the unit is too big, it will cool the house quickly, but will not run long enough to remove moisture and lower the relative humidity. You can feel sticky or clammy even though the air is cool. Energy auditors, energy raters and trained HVAC contractors can tell you more. Always verify the size of the unit needed. Don’t just replace what you have with the same size as older building codes had different requirements.

Builders and HVAC contractors must use the new Manual J, version 8, released in 2002 to accurately determine the correct latent load or moisture potential and properly size your unit. Ask them. The new calculations adjust for home orientation, size and type of windows, shading, square footage and other factors.

New Energy Star windows reduce solar heat energy entering the home keeping it cooler inside. They may cost more up front, but they can reduce the tonnage of air conditioning needed and therefore, the cost of the unit.
Some air conditioners also provide heat, either through a heat strip that heats the air or through a heat pump. HSPF or heating system performance factor is a measure of heating efficiency. More efficient units have an HSPF of 9 or greater but the minimum allowed by Florida Building Code is now 6.8. Here, bigger is better.

In Florida, air conditioning systems are not just for cooling. Moisture control may be more important for health, air quality and comfort.

Call the University of Florida/IFAS Osceola County Extension Office for more information on home energy and water conservation at 321-697-3000 or email efoe@osceola.org

Bugged by bugs? Angry with ants? Troubled by termites or peeved at pantry pests? Residents interested in managing pests in and around the home should attend Household Pest Control for Homeowners August 5 at 7 pm or August 7th at 2:00 pm. Call 321-697-3000 to register.

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