# **Rosie's Air Conditioning Consumer Guide**



## Ranked #1, 10-years in a row

## Rosie on the House is every Arizona homeowner's best friend!

- Arizona's most trusted contractor and home improvement referral network
- Resource-packed website with countless DIY Q&A's
- Weekly articles in Arizona's most popular newspapers across the state
- Celebrating 31 years of being Arizona's #1
  weekend broadcast





### ARIZONA'S MOST TRUSTED Contractor & Referral Service





### **Rosie's Air Conditioning Consumer Guide**

One of the most expensive purchases you will ever make for your home is an air conditioner -- whether you are replacing existing equipment or choosing a heating, ventilating and air conditioning system (HVAC) for a new home.

Once your AC system is up and running, it could be a decade or more before you replace it. Since you will be living with it for a long time, you want to choose wisely. The equipment, the duct design, the warranties and the installation contractor are all very critical to the success of your new system.

If done correctly, a new air conditioner will result in more comfort year-round, lower energy bills, and better air quality, particularly because of recent improvements in cooling equipment technology and installation procedures. Here are basics to remember through the process:

#### 1 | Pick A Contractor You Can Trust

Unless you have worked in the HVAC field, you cannot expect to completely understand all the details in air conditioning; no homeowner can. This creates a situation where you might be taken advantage of and you need to proceed carefully.

Do pick a contractor based on recommendations from friends or neighbors or a reputable referral network and submitting them to the screening process outlined here. Never choose one after talking to a telemarketer or because someone came to your door to make a solicitation. Be suspicious of mailings offering cut-rate prices.

Check on how long the contractor has been in business. Choose someone who has been around at least five years has a proven commitment to the job and can be counted on to return if you have problems.

HVAC contractors must register with the Arizona State Registrar of Contractors. Get the license number and check it out at www.azroc.gov on the Internet under "contractor search." Then check with the Better Business Bureau to see if a contractor has had complaints filed against him. Finally, ask each contractor you interview for past customers' names and call a few. Did the contractor do what he promised? Has he returned to fix problems that came up after installation? How do the customers like the air conditioner they chose? What impact have they seen on their utility bills, indoor air quality and comfort?

#### 2 | Be Ready to Take The Contractor's Advice

Research on the Web or with others who have bought air conditioners is always good. But be cautious about insisting on a specific brand or size of air conditioner. Once you choose an installer you trust, you can let him suggest brands. He may know about options that suit your home better than what you had in mind. A good contractor also knows what manufacturers give the best warranty.











#### 3 | Your Air Conditioner Should Fit Your Home

Make sure your contractor does research about your house, the microclimate you live in, and the condition and placement of your air ducts. That way he can determine how much air conditioning you need and whether you need to repair or realign ducts to improve your cooling efficiency.

Be very suspicious if a salesperson makes a proposal without visiting your attic to look at your furnace and air handler or without checking the AC in the yard or on the roof. He or she is not doing the necessary homework.

#### 4 | Bigger Is Not Always Better With Air Conditioning

AC experts tell us that for years we have "over-tonned" houses in Arizona by installing air conditioners too large for the size of the house.

A quick explanation starts with a few definitions: The cooling power of air conditioners is often described as "tons of refrigeration." A ton of refrigeration is roughly equal to the cooling power of one ton (2,000 pounds) of ice melting in 24 hours. Residential central AC systems are usually from one to five tons in capacity.

The industry used to recommend installing one ton of refrigeration for every 400 square feet of floor space in your home. But times have changed, and energy efficiency has improved. You can probably go with 20 percent less in tonnage than before. You can go down about half a ton in your AC without even noticing a change in comfort and it will cost less to buy, less to run and provide better indoor air quality.

Be wary of contractors who recommend increasing tons because of warmer areas in your house. That cannot be solved by increasing the capacity of your air conditioner.

An over-sized AC stops and starts more often; that costs more kilowatt hours and puts increased wear on your equipment. Over-sized air conditioners do not run long enough to dehumidify the air. A smaller unit will run longer and perform more efficiently. It's the equivalent of an economy car running on cruise control on the open highway or a large pickup truck in stop and go city traffic.

Your contractor should perform a heat-load calculation before deciding what size air conditioner you need. That calculation should consider the size, shape and orientation of your house, insulation, window area, air infiltration, climate, number of residents in the house and their comfort preferences. This heat load calculation is called a Manual J calculation. Ask to see the results for your specific home prior to having a unit size determined.











#### 5 | You Need to Change Your Entire HVAC System Including the Furnace

If you replace just the outside HVAC unit with a condenser and compressor without replacing the furnace and air handler, you might not be happy with your comfort level or energy bills. Those separate units are designed to work together and need to match in capacity and efficiency. Otherwise, you might not get the benefits of the SEER rating promised by the equipment manufacturer.

#### 6 | What Does A SEER Rating Mean?

In shopping for a new HVAC system, be sure it has an Energy Star label. Energy Star products, certified by the Environmental Protection Agency, are at least 20 percent more efficient than air conditioners that meet minimum federal standards.

An Energy Star HVAC will have a Seasonal Energy Efficiency Ratio ranging from 14 to 21. This number measures energy efficiency -- something like "miles per gallon" for a car. The higher the SEER, the more efficient and the less costly it will be to operate. An HVAC with a rating in the middle will probably work best and pay for itself more quickly than units with the highest ratios and prices. The longer you plan on being in your home, the more financial sense it makes to invest in higher SEER. The only exception to this rule is if the manufacturer and installer's rebates and incentives allow for an upgrade at no additional cost; in which case, we suggest going ahead with the upgrade.

## 7 | If You Have Hot Spots in Your House Ask Your HVAC Contractor How To Improve Your Duct Work

Even the most energy-efficient unit will underperform when coupled with bad ducts. Many homes in Arizona actually lose much of their cooling and heating capacity due to leaky air ducts. According to an APS study, as much as 33 percent of the potential heating and cooling could be leaking out. You may need to reseal or reconnect some ducts or reroute their path through your house.

Another very common problem we find is an insufficient volume of return air. Asking your equipment to cool the indoors to a comfortable level in the middle of the summer and starving it for air would be like asking a marathon runner to only breath through a straw during their race.











#### 8 | Whether You Get Three Bids Or More, Price Should Not Be Your Only Criteria With An Air Conditioner

Ask yourself:

- Does the contractor offer service on equipment they install, as well as equipment installed by others? •
- Is the service available 24/7?
- Is the contractor locally owned and operated or will you be calling a 1-800 number taking you to a call center located who knows where!

We also recommend visiting the contractor's office, looking at the appearance of their trucks, chat with their employees, and visit their website. Assess the contractor as a whole before you decide they are the right fit for you.

That lowest bid might come from someone who hasn't analyzed your ducts and filtration system. That contractor might not include a decent guarantee either; some reputable firms guarantee parts and labor from five to 10 years.

If the HVAC estimator or salesperson at your house simply recommends replacing your old equipment with new equipment of the same size and doesn't check the integrity of your ductwork, you have the wrong contractor at your house.









