



Home Inspection Services Newsletter

July, 2009

Educational: **HVAC System types**

Below is a thumbnail of the types of heating and cooling systems which are frequently installed in the valley.

- **Packaged Heat Pump:** An electric powered unit that provides both AC and heat. The unit is generally installed on the roof. A **HP** is a Air conditioner that is modified to allow reversed refrigerant flow to produce heat when called for. These units can include strip heaters for backup if the temperature is too cold for the heat pump to be effective (usually not the case in the valley). Hot air temp is generally about 20 higher than the homes ambient temp so HP heating is slower to heat the home than a gas furnace.
- **Heat Pump Split System:** Same principle as above but allows the condenser and condenser cooling coils to be located on the ground (eliminates roof mounting). The evaporator and air handler portion of the system can be located in the attic, a closet, or the garage. The refrigerant is pumped between the two sections of the system.
- **AC unit with electric strip heaters:** This system may be “packaged” or split and consists of an air conditioner for AC and electric strip heaters (think toaster providing heat).
- **Gas Pack:** Packaged unit (generally on the roof) that consists of an air conditioner and a gas furnace.
- **AC unit with Gas furnace (split system):** The configuration is the same as the heat pump split system except that the ground unit is strictly an air conditioner and a gas furnace is located in line with the evaporator coil and air handler (attic, closet, or garage).

Think about it this way: An HVAC (heating, ventilating, and air conditioning) system consists of the following:

An AC unit (Refrigerant, condenser & fluid cooling, evaporator coil)

A Heat source (Gas furnace, heat pump, electric resistance heaters)

A distribution system (blower, distribution ducts, air return ducts)

The components can be configured (packaged in one unit or split) and located based upon the lay-out of the house, availability of natural gas, cost of the system, cost of operations, appearance of the home, etc.

Question of the Month: **Why don't inspectors fix items?**

Every inspector I know is handy and capable of fixing miss-wired electrical receptacles, loose fixtures, insulation too close to flue vents, etc. So why don't we just fix the "little" items that we write up?

The short answer is that it is not our house (we have no right to do it) and most of us are not licensed contractors and can't assume the liability. Of course, most of us tighten screws, etc but you'll never know because it won't be in the report! **Note:** Inspector's code of ethics prohibits an inspector from fixing items for a fee.

Maintenance Items for July: **Change AC air filters**

Change your AC filters monthly. Your AC system will run more efficiently and use less electricity. I prefer the pleated filter that cost about \$3.00.

Monitor your AC condensate: Know where your AC condensate drains and monitor it! If water is not draining where it's designed to, it's going somewhere! Usually creating damage!

Safety Tip of the July: **CPR & First aid**

It's swimming pool season. It would be ideal if all adults in Arizona knew CPR and basic first aid. The Red Cross offers courses on a regular basis. Invest a few hours and a minimum fee to learn CPR and basic first aid. You never know when you may be called on to make the difference between life and death. If utilized, these skills will probably be used with a family member or friend!

Inspection classes for realtors: We offer several classes for realtors. Please feel free to call on me to help.

Let our experience work for you!



Daryl Gates



Mark Andrews



Lauren Andrews

H&A Services, LLC

(480) 614-0015 (623) 561-1709

www.hainspect.com