



GUIDE TO EFFICIENT COOLING OF YOUR HOME

Summers get extremely hot in El Paso (triple digit temperatures), so, it is important that you understand the different types of air conditioners found in El Paso residential properties and how to operate and maintain them for maximum effectiveness in these hot months. Our hottest months are from June – August.

El Paso has a mixture of both Evaporative Coolers (also known as swamp coolers) and Refrigerated Coolers (also known Central AC or Refrigerated air). Both cool effectively in this climate, but there are some differences that are important to know to ensure proper operation and comfort.

Approximately 80-85% of El Paso's residential AC's are Evaporative as these are most conducive to dry climates where humidity is below 25%. In recent years, Refrigerated AC's are becoming more common as the climate in El Paso has changed somewhat (higher humidity) and as the cost to convert and run Refrigerated AC's has come down. It is still quite pricey to install a Refrigerated AC system (\$5000- \$15,000 depending on units efficiency and size of home) vs. a new evaporative AC unit (\$1,200 - \$1800). Most new homes built within the last 5 years have refrigerated air. Older homes tend to have evaporative, although some have converted to refrigerated AC's in recent years.

REFRIGERATED AC

Central Air or Refrigerated air conditioning units cool the air with a chemical like Freon. Freon changes from gas to liquid and back into a gas again during the cooling process. When Freon reverts back to gas, it removes heat from the surrounding air. Central air works better if the home is air tight and sealed (all doors/windows closed). The temperature in homes is controlled using a thermostat. Once a set temperature is reached, the unit will shut off and will turn on again once the temperature rises.

Refrigerated AC units require that filters be changed monthly for best efficiency. If filter is not changed monthly and gets clogged, the condenser will freeze and unit will cease to cool and may damage unit.

To ensure unit cools efficiency and to avoid service call fees or damage charges to unit, replace filters monthly.

Refrigerated AC units are generally located at ground level outside house (this is called a split system which works in conjunction with a separate furnace, generally located inside home). Package units are generally located on the roof and are both an AC and heating unit in one.

EVAPORATIVE (SWAMP) COOLERS

Swamp coolers use a fan to pull air through pads moistened with water. The hot dry air is cooled when it absorbs water molecules and is distributed by a blower (a rotating fan called a squirrel cage). Since evaporative coolers rely on water and air to cool, the temperature indoors varies by outdoor weather conditions. When the humidity rises, the coolers work much less efficiently. El Paso's humid months are generally July-August.

Evaporative coolers are for the most part, located on the roof unless they are window units. There are several types of swamp coolers but the most common are the four panel coolers (3 – 4 panels which hold the cooling pads that need to be replaced yearly. Master, Aero or Ultra cool units have one large pad that needs to be replaced every 3-5 years. Both have to be serviced and started every year once temperatures start to climb and are then shut down in the winter (drain water from pan, motor and water pumps unplugged, and the copper water supply line disconnected to prevent water in the line freezing and bursting). **In order for evaporative coolers to cool and circulate air efficiently, a window will need to be cracked, or partially opened during operation. The house cannot be completely sealed or air tight or house will not be cooled.**

Whether you have **Refrigerated Air** or **Evaporative Air**, our firm will cover the cost to start and/or service your AC unit every year. Do not attempt to start or service the AC unit yourself. Although a technician doesn't need to be sent to your home to start up Refrigerated AC's (you can switch from heat to AC with a

flip of a switch), we still require that tenants are responsible to change out air filters every two months. Our technician will call you to set up appointment to go by and check unit every year once temperatures start to rise (around late March to early April every year).