



The Comfort Advantage Energy Efficient Home Programs focus on the use of energy efficient heat pumps. There are several types of heat pumps to choose from. Speak with your professional heating and air dealer about which option is best for your home.

### **Types of Heat Pumps**

#### **Air Source Heat Pumps**

Air source heat pumps are the most common type of heat pumps available with two basic styles: packaged heat pumps and split system heat pumps. The layout of your home will determine the style you need.

Packaged heat pumps are self-contained units where the compressor and both heat exchangers are located outside the home. These units use ductwork to distribute conditioned air to the entire home. Several types of packaged heat pumps, called packaged terminal, self-contained through-the-wall, or window heat pumps are used for single rooms and don't need ductwork.

Split system heat pumps are the most common of the two air source choices. The indoor air-handling unit and heat exchanger are separate from the compressor and the outdoor exchanger. This allows homeowners more options for installation location. These units use ductwork to distribute the conditioned air to the entire home.

#### **Dual-Fuel Heat Pumps**

Dual-fuel heat pumps are an electric heat pump and a gas furnace all in one. In the southern climate a heat pump is the most efficient way to heat a home. In the winter when temperatures drop below freezing a gas furnace provides back up heat instead of using electric strips as the air-to-air systems. In the summer it operates as a normal air conditioner.

#### **Geothermal Heat Pumps**

Geothermal heat pumps operate like air-to-air heat pumps, moving heat rather than creating heat; however, they use the ground or water to absorb or dissipate heat. Geothermal units normally use water to move heat from one location to another. Because the earth and large bodies of water have a constant temperature, pipes are laid in the deep sections of water or buried underground. Water is used to trap heat

**from the home in the summer and disperse it into the ground using the water as a vehicle. In the winter the heat is trapped and released in the home and distributed via duct work.**

**Geothermal systems are fast becoming the choice of energy conscience builders and homeowners. These systems can be installed in new homes and existing homes.**