

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 & Split System Heat Pumps. The layout of a home will determine the style needed.

Packaged Heat Pumps are self-contained units that allow the compressor and both heat exchangers to be located outside the home. These units use ductwork to distribute the 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 more options on where the units are installed. 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 the temperature drops 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 minded builders and home owners. These systems can be installed in new homes and existing also.

