



AC VS. HEAT PUMP

Bay Area homeowners are often faced with the difficulty of choosing between a conventional AC and a heat pump. While both these systems work along the same lines when it comes to cooling, there are some glaring differences as well.



Heat pumps and central AC units are considered to be HVAC systems since they essentially pump or transfer heat to condition the inside temperature.

Difference in Operating Parts

A major difference in heat pumps and air conditioning units is the way they function. Heat pumps have the ability to reverse the flow of air direction and transfer and raise indoor temperatures by transferring heat from outside. They do this by making use of a reversing valve which is built into the compressor.

On the other hand, a conventional air conditioning system needs to rely on the heat strips that form part of the air handler to distribute or produce warm air.

Cost Difference

Most central air conditioners cost 5% less than the cost of heat pump systems. This means you would have to pay more for installing a heat pump as well. Heat pumps have comparatively shorter lives since they run year round to both cool and heat the inside temperature.

This can result in higher service prices where heat pumps are concerned since HVAC contractors would take into account year-round maintenance.

It is not enough to simply rely on the cost of a new air conditioning unit or a heat pump while comparing the two. Other factors that are specific to your property may cause additional wear and tear and lead to one becoming more expensive in the long run.

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How Does an AC vs. Heat Pump Work?

Conventional air conditioners and heat pumps may differ in their operating parts, but they do rely on the same principle to achieve inside air conditioning. A compressor is utilized by both systems to effectively compress refrigerant inside the system. Gas is compressed inside the compressor which causes temperatures to increase significantly.

This gas is allowed to flow through the condensing coil where it is cooled down to an ambient temperature. The gas expands as it enters the evaporator coil causing temperature in the coil to rapidly drop and cool. A blower or a fan assembly within the handler draws this cooled air from evaporator coil to condition the interior air.

A major difference in the two systems is that the process can be reversed in a heat pump with a simple switch that causes condenser and evaporator coils to raise the inside temperatures.

How to Choose the Best Option?

Several factors come into play when choosing between a heat pump and a conventional central air conditioner. The most notable factor is climate. Most top brands of central AC offer the option to install heat pumps.

Areas that are subjected to temperatures of 40-degrees or lower for a few months in a year are not ideal for the installation of heat pumps. This is because heat pumps needs to work extra hard as the temperature drops to maintain a comfortable inside environment. This causes more energy to be used which will lead to your utility bills skyrocketing.