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WHAT IS A HEAT PUMP?

Heat pumps are growing in popularity because higher energy costs and chances of future fuel shortages have led homeowners to seek ways to reduce their heating and cooling costs. The new generation of heat pumps available today are extremely reliable and cost efficient - **especially in the Okanagan!**

COST-EFFICIENT HEATING (Air-to-Air Heat pumps)

A heat pump provides both heating and cooling capabilities in one system. Although the initial cost for a heat pump may be higher than for a regular furnace, this system will both heat AND cool your home. And, because the heat pump uses energy more efficiently over time, the savings will more than make up for the initial higher cost. A heat pump will supply about two times more heat than energy used. **The greatest savings with a heat pump usually occurs during the heating season.**

To find out how much a heat pump will help you save annually, check operating costs and electricity prices with your local electric utility. In British Columbia, energy costs to heat and cool a home with a heat pump are generally 15-20% less than conventional heating and cooling systems.

HOW A HEAT PUMP WORKS

An “air-to-air” heat pump has two parts - and indoor unit with a coil and a blower that pushes the warm or cool air through your house (like a standard furnace); and an outdoor unit with another coil, fan and a compressor or pump (like a standard air conditioner). Unlike the standard system, in which the furnace operates only in winter and the air conditioner operates only in summer (using the furnace blower to move cool air), the heat pump uses both indoor and outdoor units year-round.

In summer, the refrigerant removes heat from the air inside your home and exhausts it outside, while cooled air is forced through the duct system to cool your home.

In winter, the procedure is reversed. The refrigerant absorbs heat from the outside air, and the compressor pumps the refrigerant to the inside unit where the heat warms the inside air. The blower pushes the heated air through the duct system to warm your home.

EVEN WINTER AIR HAS HEAT

This may seem strange, but heat exists in all air. Even air as cold as -460°F. contains some heat. The heat pump uses this natural heat in the outside air to warm your home - at a lower cost than heating the air artificially.

GENERAL NOTES ON OPERATION

- ✓ All heat pumps have an outside and an inside-the-house component - the outside unit usually looks like a typical air conditioner and the in-house unit is usually found inside your furnace and is not fully visible.
- ✓ Here in the Okanagan, heat pumps usually have a “back-up”, “auxillary” or “emergency” heat source. Typically, this is a standard electric or gas furnace that would be found in any home.
- ✓ When temperatures reach the freezing mark, heat pumps can “ice up”. This is a typical occurance and the pump is programmed to thaw itself out. When this happens, the “back-up” heat source is automatically activated.
- ✓ When the outside temperature gets too low for the heat pump to be efficient, it will automatically turn on the “back-up” heat source inside the house.
- ✓ Heat Pump heat is **not as hot** as a conventional furnace. Expect slower warm-ups on cold mornings.