

# Heat Pumps



## Healthy indoor air and year-round comfort.

If you are considering alternative options for heating and cooling your new home or looking for ways to reduce heating bills and improve your air quality, a high-efficiency air source heat pump is your solution.

### Benefits

A heat pump provides year-round climate control, producing even, comfortable heat in winter and air conditioning in summer. It dehumidifies, too, reducing mould and excess moisture that can invade walls and window frames and result in serious repairs.

A heat pump also filters the air to reduce irritants that could aggravate breathing problems. And it's a non-combustible heat source so it uses no flames, no fuel and produces no fumes. That's why the Lung Association of Nova Scotia includes heat pumps in their Formula for Healthy Indoor Air.

Heat pumps are as affordable as any other heating system. For every unit of energy used, they can produce over three units of heat. This efficiency makes them cost-effective. In fact, you can heat and cool your home for about the same annual cost as other heat-only systems.

### How a Heat Pump Works

The system works on a simple principle. The heat pump absorbs heat from the outside air in winter and circulates it in your home through ductwork. In the summer it works in reverse, removing heat and humidity from your home and releasing it outside.

The heat pump meets the full heating requirements of the house at an outside temperature of  $-4^{\circ}\text{C}$  or warmer. This is commonly referred to as the balance point. A back-up heating source provides supplementary heat at temperatures below the balance point.

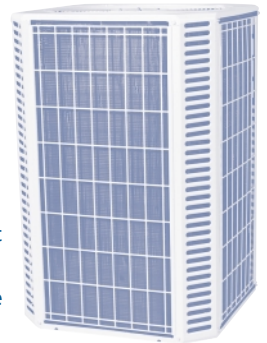
### Types of Heat Pumps

The back-up heating source depends on whether the unit is an add-on or all-electric. Add-on heat pumps are designed to be used in conjunction with another heating system such as an oil or electric furnace. An all-electric air source heat pump comes equipped with its own electric back-up built in. If the heat pump is all-electric, the electric back-up source automatically provides supplementary heat as required, maximizing efficiency and saving money. Over the entire winter, the electric back-up will provide approximately 15% of the total heating needs.

If the heat pump is an add-on, it will shut off if the outside temperature drops below the balance point, and only the furnace will heat the home. Adding a heat pump to a forced-air furnace will optimize the efficiency of the heating system.

### Installation, Service and Maintenance

A properly installed heat pump will maximize your heating and cooling efficiency and provide years of maintenance-free service. Nova Scotia Power can recommend certified installers and quality heat pumps that are backed by comprehensive warranties. Once installed, arranging for a qualified firm to service the heat pump will keep it operating at peak efficiency and extend the life of the components. Annual service plans are available from heat pump contractors for approximately the same cost as furnace service plans.



For more information, call one of our Energy Advisors at 1-800-428-NSPI (6774) (428-6774 in Metro Halifax) Weekdays 8 a.m. to 8 p.m. or Saturdays 9 a.m. to 5 p.m.

Or visit our website at [www.nspower.ca](http://www.nspower.ca)

Nova Scotia Power Inc.  
P.O. Box 910  
Halifax, NS  
B3J 2W5

Call the Lung Association for more information on lung health at 902-443-0912

Partners for Healthy Indoor Air

 Lung Association  
Nova Scotia

  
NOVA SCOTIA  
**POWER**  
An Emera Company