

A refrigerator moves heat from inside the fridge to the outside, keeping the inside cold. A heat pump uses the same principle in reverse. It transfers heat from outside the house to the inside.

The outside air gets heated up by energy from the sun every day of the year. So even when the sun is not shining brightly, or it is the middle of winter, there is still a lot of solar heat energy available. Because heat pump systems only use electrical energy to 'move' heat they are very efficient. They don't actually 'make' heat themselves as normal heaters do.

It is during the heating cycle that the heat pump produces the most savings. Unlike a furnace that turns fossil fuel or electricity into heat, the heat pump collects heat that already exists in the outdoors by means of its refrigeration cycle. Consequently, a heat pump will produce two to three times more heat than the energy it uses.

In addition, a heat pump can be an effective add-on option to use in conjunction with an existing gas furnace. With a dual-fuel system, the two systems share the heating load, but never function at the same time. Each system operates when it is most cost-effective. The heat pump will be the primary heating and cooling system. However, when the temperature drops below the heat pump's ability to operate as efficiently as the gas furnace, the furnace will take over until the temperature raises enough for the heat pump to operate more efficiently.

Checklist for using a heat pump efficiently

Like any heating option, heat pumps will give the best energy savings when they are used smartly.

- Heat the spaces that you are actually using and shut doors and curtains to keep the heat in.
- Don't leave it on all day if you are not in. Learn to use the timer features so your heat pump turns on an hour or so before you get home, instead of leaving it running all the time.
- Clean the filter (inside and outside) regularly, as per the manufacturer's instructions.
- Close curtains on hot, sunny days to keep your home cool and shady.

Mattioni Plumbing, Heating & Cooling Inc. is always available to answer any of your questions. Contact us today: 484-696-1287