

# *its*<sup>TM</sup> *heat pumps*

## Domestic Heat Pumps



# What Is A Heat Pump

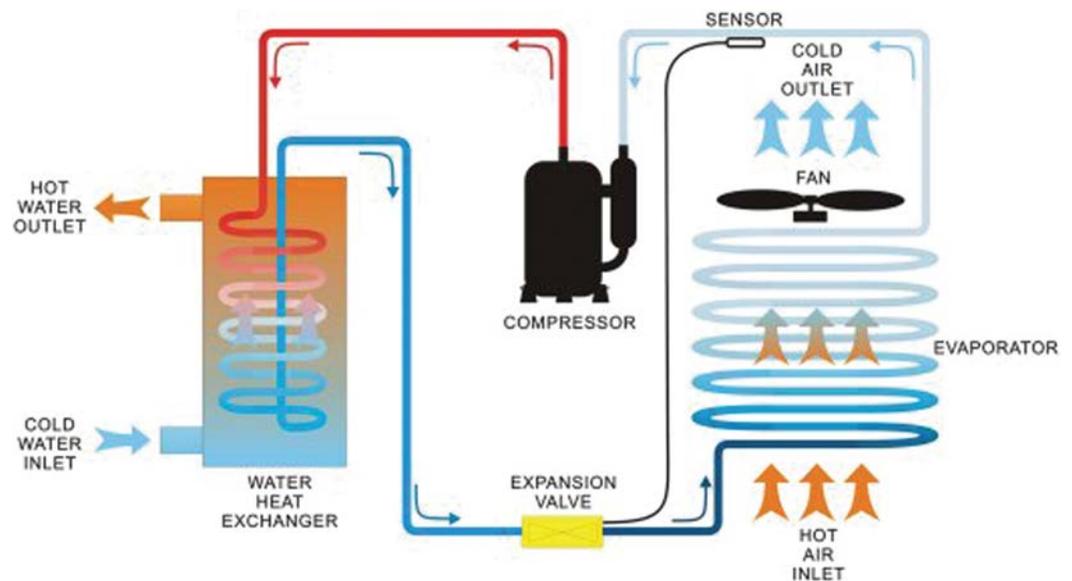
A domestic hot water heat pump is a very efficient water heating device. It uses a small amount of electricity to produce up to four times more heat energy. So by connecting an ITS heat pump to your existing hot water cylinder you can divide your hot water electrical consumption by up to four. Unlike a solar geyser, a heat pump is not directly dependent on the sun and therefore it can operate day and night, winter and summer, ensuring the highest possible saving and piping hot water 24/7.

## How long have heat pumps been around?

Heat pumps have been around for decades and have been extensively and very successfully used in commercial applications for many years. In fact, your household fridge is also a heat pump.

## How does a heat pump work?

A heat pump works like an air conditioning unit in reverse. It extracts heat from the ambient air surrounding it, enabling it to heat the refrigerant which is then compressed causing it to get even hotter. This is then run through a heat exchanger in which the water is heated. The refrigerant is then allowed to expand again, thus cooling it down and enabling it to again absorb heat from the surrounding air. So only a little electricity is used to run a fan and compressor while the heat energy is provided indirectly by the sun.



# Domestic Hot Water Heat Pumps

Heat pump technology is one of the cutting edge technologies in renewable energy water heating products. Even though this water heating technology has been used in South Africa for many decades the recent increase in international demand has brought the component costs down making the product extremely affordable for the residential and commercial users. Using a refrigeration cycle to extract energy from the surrounding air (indirectly using solar energy) it can provide you with 60°C of hot water day or night, winter or summer at a third of the cost of electrical geyser element heating.

ITS is known to be a leader in the design and manufacturing of heat pump heating technology and manufactures some of the most efficient systems on the market. The ITS heat pump range is available in domestic and industrial models.

**ITS is the leading supplier on the Eskom Heat Pump Rebate Programme.**

## Key features

- **Quiet operation with no solar collectors on the roof** - ITS Heat pumps look and sound like a standard aircon. They can be installed in a secluded area on your property.
- **Class leading efficiency ensuring maximum saving** - Due to their amazing efficiency, ITS heat pumps will save you a lot of money each year.
- **Can be used in conjunction with solar heaters** - Solar water heaters and ITS heat pumps can be used in conjunction with one another, creating a hybrid system.
- **Environmentally friendly** - ITS heat pumps use the natural energy in the ambient air and therefore seriously reduces the green house gas emissions associated with the use of electricity.
- **Safe and reliable** - ITS heat pumps have been designed by a team of highly qualified engineers and boast many safety features ensuring reliable operation for many years.
- **Fully automated anti freeze function** - ITS heat pumps can operate in sub-zero temperatures and can defrost themselves automatically.
- **Beautiful finish and superior corrosion resistance** - ITS uses high purity metals and quality finishes in the manufacturing of our heat pumps to ensure the product will remain in good condition even after many years and offer superior corrosion resistance.
- **5 Year warranty** - ITS Heat pumps have a limited extended 5 year warranty and a full 1 year warranty. The system life expectancy is more than 10 years
- **System Contoller** - Each heat pump comes with a digital system controller which intellegently controls the heat pump to ensure the highest possible efficiency. These controllers are very user friendly.



**its**<sup>TM</sup>  
heat  
pumps & solar

# ITS Heat Pumps - The most cost effective solution to heating your geyser!



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