

Save up to 70% on your  
home water heating costs!



**ecospring**  
HOT WATER SYSTEMS

[ecospring.co.nz](http://ecospring.co.nz)



# Smart Water Heating for your home

EcoSpring Water Heaters are the next generation in water heating. Using heat pump technology, naturally occurring thermal energy is harnessed and used to heat the water. This efficient process can reduce your water heating costs by up to 70%.



## Reduce Power Bill

Save money, with water heating costs reduced by up to 70%.



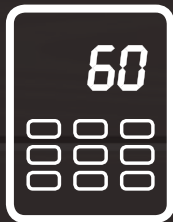
## Renewable Energy

Harnesses naturally occurring thermal energy from the air to heat the water.



## 4-Year Payback

Typically, the initial investment will be paid back in an average of 4 years (subject to usage).



## Advanced Controls

Offers three operating modes (Economy, Hybrid & E-Heat) to maximise performance and efficiency.



## Timely Heating

24 hour timer allows accurate water heating control to take advantage of the higher daytime temperatures & eliminate noise during the night.



## Low Operating Noise

At only 49-55dBA\* the EcoSpring has a very low noise output, and with an outside installation you'll hardly know it's there.

\*Measured one metre from unit in Economy Mode

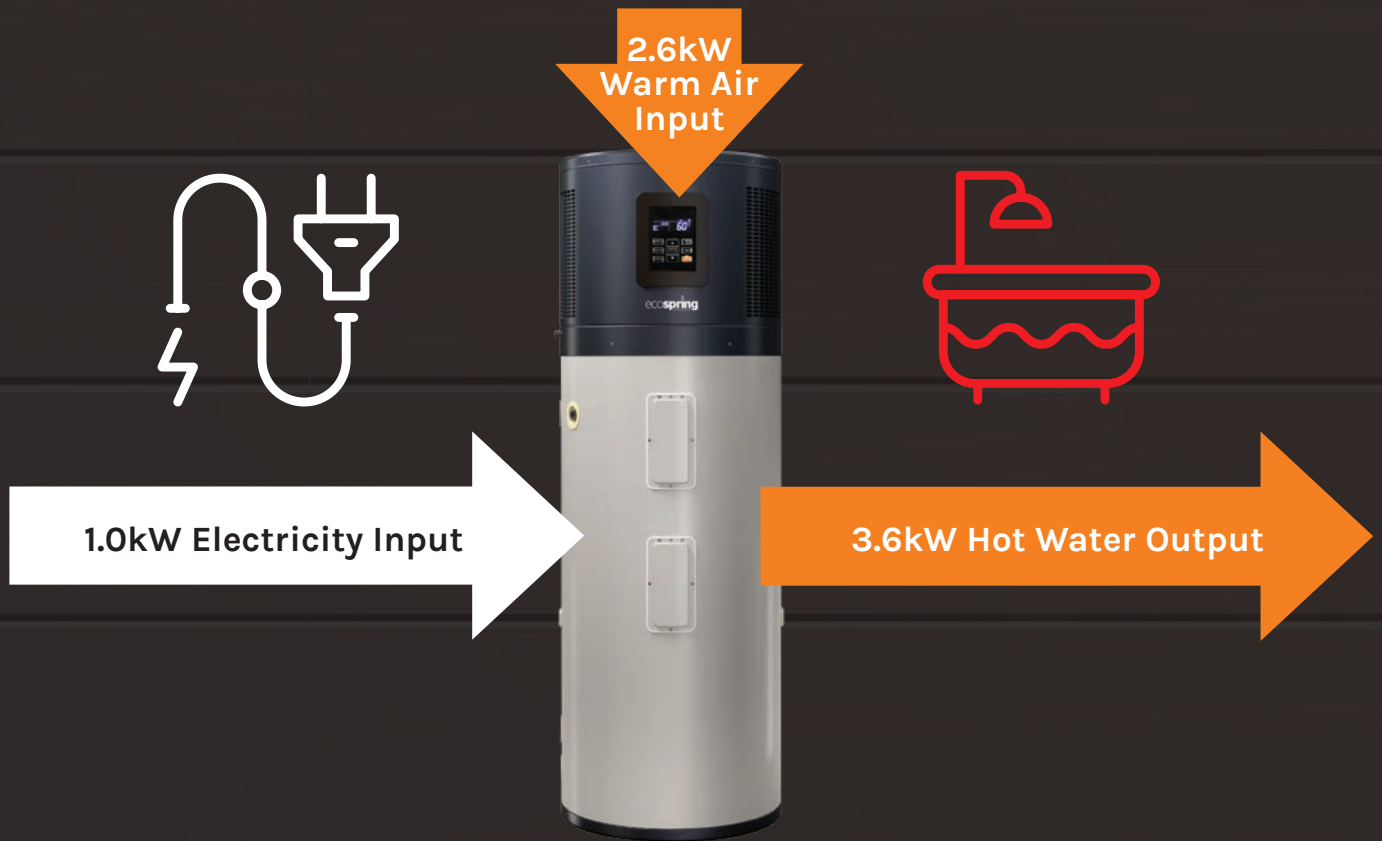
# Endorsed By All Major Plumbing Merchants

When it comes to EcoSpring, it's a real endorsement when all major plumbing merchants in New Zealand stock our product. They supply product throughout New Zealand and can recommend a qualified plumber for best practice installation.



# The Energy Equation

A heat pump is like an energy amplifier. From 1 kW of power input, it can create over 3.6kW of output heat. That's a remarkable performance efficiency of over 300%. Conventional electric storage water heaters can only convert 1 kW of input power into 1 kW of output heat.



**1.0kW Electricity Input + 2.60kW Atmospheric Heat Input = 3.60kW Hot Water Output\***

## Ideal House - 8 homestar rated



We installed an EcoSpring ES300 in our home which was designed to 8 Homestar rating, as well as being a Positive Energy Passive House.

Not only has it contributed to our goal of low energy consumption, but it has also impressed us with its quietness, ease of operation and quick recovery time. We have already recommended it to others and would gladly choose to install one in future projects.

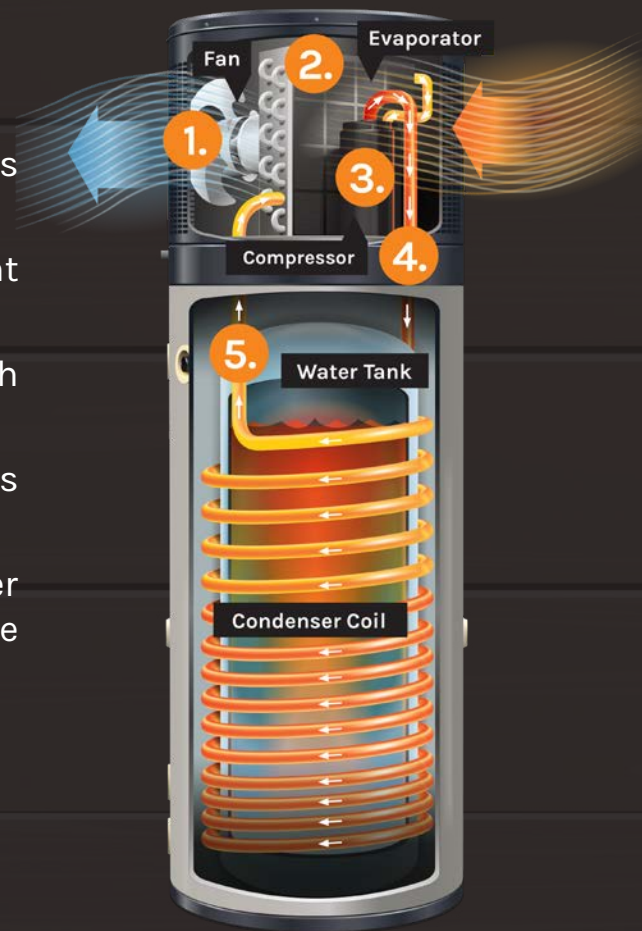
Lee Ann and Murray Durbin, The Ideal House



# How EcoSpring Works

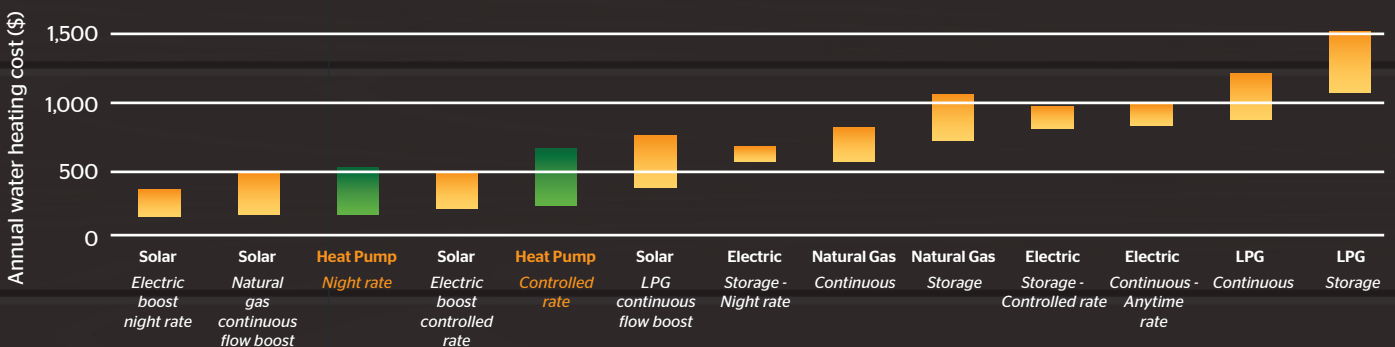
EcoSpring Heat Pump Hot Water Cylinders work much like a fridge, but in reverse. They harness the ambient temperature in the air, multiplying this energy to heat the water at a fraction of the operating costs of a traditional hot water cylinder. You will need mains water pressure.

1. A fan pulls in air containing heat energy across the evaporator.
2. The evaporator turns the liquid refrigerant into a gas.
3. The compressor converts refrigerant into high temp / high pressure gas.
4. The hot gas inside the condenser coil heats the water inside the tank.
5. The refrigerant reverts back to a liquid after heating the water & returns back to the evaporator for the process to start again.



Mains Pressure Required

## Indicative running costs of water heating options\*



\*Source: <http://www.energywise.govt.nz/node/18187> (September 2013)

\*(Three person household)

## EcoSpring Models

The EcoSpring Heat Pump Hot Water Cylinders come in two sizes.

The HP300 is designed for 3+ person household with standard water use and the ES190 is for the smaller household of 1-2 people with standard water use.

Both have the same great technology to save money on heating water.

### HP300 280 Litre Cylinder



Suitable for 3+ person household with standard water use

### ES190 190 Litre Cylinder



Suitable for 1-2 person household with standard water use

## Advanced Controls

### Economy Mode

The unit utilises the heat pump to heat water. This is the most efficient mode possible, thus allowing the greatest savings.

### Hybrid Mode

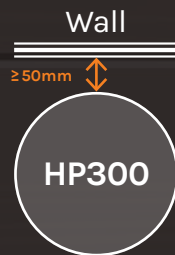
While the unit uses the heat pump as its primary means to heat the water, the standard electric elements will activate if the ambient air temperature is low.

### E-Heat Mode

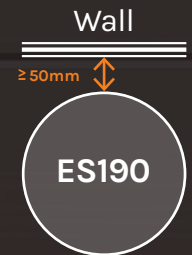
This mode shuts off the heat pump and only uses the electric elements to heat the water, just like a standard electric water heater. E-Heat mode allows for operation in colder situations (less than  $-7^{\circ}\text{C}$ ).

# Dimensions & Installation

## HP300



## ES190



## Specifications

| Model                 | EcoSpring ES190  |                                       |                | EcoSpring HP300  |                                       |                  |  |
|-----------------------|--|---------------------------------------|----------------|--|---------------------------------------|------------------|--|
|                       | Economy  | Hybrid                                | E-Heat         | Economy  | Hybrid                                | E-Heat           |  |
| Heating Capacity      | 1500W  | Heat Pump<br>1500W<br>E-Heat<br>2150W | 2150W          | 2000W  | Heat Pump<br>2000W<br>E-Heat<br>3000W | 3000W            |  |
| Rated Input/Current   | 529W/<br>2.3A  | 1860W/<br>8.1A                        | 2150W/<br>9.5A | 2000W/<br>6A   | 5000W/<br>21.73A                      | 3000W/<br>13.04A |  |
| Power Supply          | 220-240V-50Hz  |                                       |                | 220-240V-50Hz  |                                       |                  |  |
| Operation Control     | Auto/Manual startup, real time control, error alarm, etc   |                                       |                | Auto/Manual startup, real time control, error alarm, etc   |                                       |                  |  |
| Protection            | High-pressure protector, overload protector, temp controller and protector, electric leakage protector |                                       |                | High-pressure protector, overload protector, temp controller and protector, electric leakage protector |                                       |                  |  |
| Compressor Power      | 440W   |                                       |                | 850W   |                                       |                  |  |
| E-Heater Power        | 2150W  |                                       |                | 3000W  |                                       |                  |  |
| Refrigerant           | R134a [0.8kg]  |                                       |                | R134a [1.2kg]  |                                       |                  |  |
| Water Pipeline System | Outlet Water Temp  | Default 60°C, 38°C - 70°C adjustable  |                |  | Default 55°C, 38°C, - 60°C adjustable |                  |  |
|                       | Water Side Exchanger   | Surface heat exchanger                |                |  | Surface heat exchanger                |                  |  |
|                       | Diameter   | DN20                                  |                |  | DN20                                  |                  |  |
| Max Pressure          | 1.0MPa   |                                       |                | 1.0MPa   |                                       |                  |  |
| Noise Level*          | (dB(A))  | 49-55                                 |                |  | 49-55                                 |                  |  |
| IP Rating             | IP24   |                                       |                | IP24   |                                       |                  |  |
| Exchanger Air Side    | Material   | Hydrophilic aluminium fin             |                |  | Hydrophilic aluminium fin             |                  |  |
|                       | Motor Power  | 35.5W                                 |                |  | 68W                                   |                  |  |
| Dimension             | 568mm x 1580mm   |                                       |                | 650mm x 1920mm   |                                       |                  |  |
| Water Tank Capacity   | 190L   |                                       |                | 280L   |                                       |                  |  |
| Net Weight            | 90kg   |                                       |                | 145kg  |                                       |                  |  |
| Cylinder Construction | Enamelled steel  |                                       |                | Enamelled steel  |                                       |                  |  |
| Warranty              | 3 Year Comprehensive   |                                       |                | Storage Tank - 5 Years<br>Compressor - 3 Years   |                                       |                  |  |

\*Measured one metre from unit in Economy Mode

## Install Recommendations

- Install on north facing side of property
- Adhere to clearances surrounding the unit (Please refer to the diagrams above)
- Install on a concrete pad
- Interior installation – Please contact us at 0800 200 510 for requirements



## Peace of mind

EcoSpring offers a proactive, annual service plan that makes it easy for consumers to maintain their hot water systems.

Annual servicing will not only ensure peak performance, but help extend the life of the system...providing not only peace of mind, but additional value.

Register at: [ecospring.co.nz](http://ecospring.co.nz)



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