

Frequently asked Questions

How do I ensure that the system is energy efficient?

A heat pump can heat water up to around 55°C . The hotter the water, the lower the energy efficiency, so running at a lower temperature will save energy, and running cost.

COP is the energy efficiency ratio used for Heat Pumps. A COP of 4 means you get 4 kW's of heat for every 1kW of electricity consumed.

Why is there is a big variation in COP efficiency claims.

Differences in the Efficiency of an Air Source Heat Pump is down to the make up of the machine, what type of compressor, which refrigerant is used, and the actual system – whether it is a **monobloc** or a split system. **The Eko Warrior** comes as a split system which is charged with a refrigerant, and not water. It comes with an **Inverter Compressor** this type of compressor only uses enough energy to reach the set temperature, has a low start up current, and ramps up, or down on energy depending on how much heat is being called for. The alternative Scroll Compressor works like a light switch it is either on or off & has a much larger start up current. We only use **R410A Refrigerant** which has a much better heat transfer than **R407C** or **R404A** refrigerant.

Is an Air Source Heat Pump system a viable option to a ground source?

An Air Source Heat Pump is much easier to install and cheaper to buy. The annual average efficiency is slightly lower than a ground source heat Pump, but if the Air Source Heat Pump is correctly sized it will provide all you heating and hot water needs.

Can my plumber install a system?

Yes, but to be able to claim the **government incentives** they would need to be an accredited MCS installer.

Frequently asked Questions

How long will an Air Source Heat Pump last?

Most Air Source Heat Pumps should last in the region of 20 years, depending on the system. The **Eko Warrior** is a split system, which means it comes with 2 units - an indoor, and outdoor. The indoor unit houses most of the critical parts of the heat pump. However, a single unit system, **monobloc**, everything is outside, and is subject to all adverse weather conditions.

Can a heat pump also heat the domestic hot water ?

It certainly can. The **Eko Warrior** will heat your domestic hot water to around 55°C, bearing in mind that if you jumped into a bath filled with hot water at this temperature you would need to be treated for burns. As with all good heat pumps the **Eko Warrior** comes with a built-in heater to raise the water temperature to 60°C for sterilization once a week, or fortnight, depending on customer requirements.

What is Weather Compensation ?

The **Eko Warrior** comes with this as standard. If the outside temperature is slightly lower than the temperature called for in the house, it will refrain from using energy on heating. For example, if you require water for the floor heating to be at 40°C when at -5°C outside, it will adjust you may however require only 32°C when it is +5°C outside. Weather Compensation does this automatically.

Does it really Work ?

Yes, they simply move energy from one place to another. A fridge works on the same principle. For example, a bottle of white wine brought home straight from your local supermarket is at room temperature. If you put it in your fridge and wait a few hours it will be cold enough to drink. If you touch the back of your fridge during that time you will feel heat. The fridge has taken the low temperature energy out of the wine, compressed it up to a

Frequently asked Questions

higher temperature and in effect has warmed the kitchen up slightly. By using the same process both Air Source and Ground Source Heat Pumps remove energy from a source and transfer it into your building. The sun naturally replenishes the energy removed from the air and ground.

How is the heat transferred into a building?

The earth, water and air have the ability to absorb and store heat from the sun. For example, in the case of a ground source system this heat is extracted from the earth using a ground loop. In the case of an air source heat pump this harnesses solar energy found in the outdoor air. With this system there is **no need for expensive digging or drilling** and installation is quick and simple. It is ideal for urban sites where there is very little ground space.

Where should I put a heat pump ?

Anywhere, depending on how much space you have, or personal preferences, this could be either in your utility room, basement, or even out in the garage.

Do they make much noise ?

This depends on which type of compressor is used, and where it is located, the **Eko Warrior** has the compressor in the outside unit, and comes with a compressor jacket as standard, this will dampen the noise, and protect the compressor.

Can under floor heating be used with a heat pump?

Yes under floor heating new or **existing radiators** and/or fan coil units for heat distribution in your building.

Will it heat a building on the coldest winter day?

Frequently asked Questions

Yes it will. Thousands of these systems have been installed for many years in some of the most northern parts of Scandinavia, and Europe, where the winters are very hard and long. The key is the design and specification process so the system provides enough energy for the customers needs.

Will it provide enough hot water for baths showers & domestic hot water ?

With the correct design and equipment, all domestic hot water requirements would be provided by the air source heat pump throughout the year. Heat pumps produce water at a lower temperature than boiler systems. You will notice that you do not have to add as much cold water to your baths and showers. The aim is to save money and energy.

Can I heat a swimming pool ?

Yes, we have our own range in swimming pool heat pumps

Will it save money and be more energy efficient ?

Yes against all types of fuels including natural gas and other carbon producing alternatives