



Air source heat pumps **require**
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plumbing connections are needed
making them **COST EFFECTIVE** to install



AIR SOURCE HEAT PUMPS

With energy prices on an ever-increasing spiral and the reduction of carbon emissions a priority to many, including the UK Government, it is little surprise that heat pump technology is gaining a significant foothold in the UK market.

Heat pumps have been a common feature in the Nordic regions of Europe for many years where the severe climate has made energy saving a priority. It is therefore no surprise that countries such as Sweden are pioneers in this technology, and NIBE, for whom Nu-Heat are distributors, has become one of Europe's leading manufacturers. Heat pumps work by extracting an inexhaustible supply of freely available solar energy from the air around us and utilising it for domestic heating and hot water.

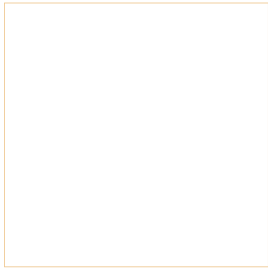
In order to access this free environmental supply an energy input is required. In a well-insulated property, every 1 kilowatt of electricity used to power the air source heat pump can provide up to 4 kilowatts of free energy. This ratio is referred to as the Coefficient of Performance or CoP, in this case the CoP would be 4. Looking at it another way, a CoP of 4 means the efficiency of the heat pump is 400%. Compare this to a boiler at 90% efficiency and the advantage is clear.

With fewer moving parts to go wrong, heat pumps have a life expectancy of over 25 years. And with no annual service or maintenance required, ongoing costs can be reduced by as much as 75%.

BENEFITS

- 'Free energy' – up to 4 units of output energy for every unit input
- Proven and reliable technology with 25-year life expectancy
- Provides all underfloor heating and domestic hot water requirements
- Little, or no, ongoing maintenance
- No local carbon emissions
- Grants – Government support towards the cost of installation
- Increases the resale value of the property





Air source heat pumps are often a practical alternative to ground source models as they require no digging or drilling and fewer plumbing connections are used during installation, making them cost effective to install. The units extract energy from the air in temperatures as low as -20°C. Inevitably the CoP for air source units will be slightly lower than for ground source heat pumps, however they will still make a considerable contribution to reducing energy consumption by up to 50% when compared to conventional boiler systems.

Advantages

- Low capital expenditure to achieve energy savings
- No ground works required
- Full integration with Nu-Heat solar systems



A Nu-Heat Project Manager will discuss with you the merits of each of the units available before specifying the model that will achieve maximum performance and the required level of the Code for Sustainable Homes on an individual project basis.