



Air Source Heat Pumps

Extract heat from the air for space heating and hot water

An air source heat pump extracts the outside air, to provide efficient heating and hot water. The refrigerant gas within the system is then compressed, adding more heat energy and raising the temperature. This heat is then passed via the heat exchanger into water and used to provide space heating through radiators or ideally underfloor heating systems.

The required operating temperature of your heat pump will depend on your heat distribution system, but depending on the level on insulation within the building we're able to provide an efficient primary source of heating, whilst operating at a flow temperature of just 35°C.

The efficiency of an Air Source Heat Pump is measured by a coefficient of performance (CoP) – the amount of heat it produces, compared to the amount of electricity required to operate it.

A typical CoP for an air source heat pump system is around 3.5 or 350%. But again this will vary depending on the level of insulation within your property and the type of heat distribution system you intend to use.

An air-to-water system has similar benefits to a ground source heat pump but with the advantage of requiring significantly less space to install.

Key features & benefits:

- **Renewable Heat Incentive:** significant savings can be achieved using air source heat pumps, under the government's new scheme the 'Renewable Heat Incentive' (RHI) allowing for an annual pay back rewarding those who invest in such qualifying technologies.
- **Reduce your fuel bills:** air source heat pumps run on electricity, so there's no need to pay for other more expensive forms of heating using gas, oil or solid fuels.
- **Cut down on wasted electricity:** heating your home with a air source heat pump is much more efficient than other conventional heating systems.

