

## Which Air Source Heat Pump (ashp) installer?

Questions to ask when choosing your air source heat pump installer.

1. Is the company MCS accredited? (micro generation certificate scheme)

The Government is currently offering the Renewable Heat Incentive, for renewable technologies installed into residential properties. In order to take advantages of these financial incentives both the product and the installation company must be certified under the Microgeneration Certification Scheme (MCS).

2. How many air source heat pumps have the company installed?

3. Are there any local customers you could talk with who have experience of providing their heating / hot water with a heat pump?

It can be useful to talk to someone who has experienced using a heat pump to heat their home and their domestic hot water; if only to be reassured that it works. (Ideally heat pumps work best with new builds having underfloor heating as they are at their most efficient running at about 55 degrees C. Converting an existing system with radiators even in a well-insulated home can cause problems as traditional oil or gas boilers run at up to 80 degrees C. Radiators may need to be oversized and micro bore pipework may cause additional problems. \* see below

4. Can the installer explain how they would choose the best heat pump for your installation and why?

This discussion can bring to light any difference in what your installer believes are your priorities and what you consider them to be. It will also help reassure you that your installer knows what he is talking about.

5. What is lowest ambient temperature the proposed heat pump will cope with and what will the installer do to ensure it provides adequate heat below this level?

This will help you understand exactly how much of your heating the installer is planning your heat pump to supply and how much it will need boosting with electricity.

For your information the design temperatures specified in Microgeneration Installation Standard: MIS 3005 for different areas of the UK are as follows:-

Belfast: -1.2C    **Birmingham: -3.4C**    Cardiff: -3.9C    Edinburgh: -1.8C    Glasgow: -3.9C

London: -1.8C    Manchester: -2.2C    Plymouth: -1.2C

6. How will the system deal with hot water pasteurisation or the "legionella" issue?

Legionella bacteria can breed in water with temperatures between 25C and 45C and if particles of water containing the bacteria are breathed in, when having a shower for example, it can cause illness. The bacteria will however die within a few minutes if exposed to temperatures over 60C. The domestic hot water therefore has to be raised above this temperature, normally once a day, to ensure the bacteria has no chance of surviving.

Other questions to ask that probably do not need any explanation are:

7. What warranty is offered?
8. Are there any planning issues?
9. Can existing hot water tank be used? (If replacing a combi boiler system, a hot water tank is necessary.)
10. What are the noise levels of the heat pump? (They tend to run at about 50 decibels and this may influence location.)
11. Can the installer apply for Renewable Heat Incentive on customers behalf?
12. What is the cost of the proposed installation, what is the likely income from the RHI scheme and how long will it take for this to help repay the cost of the installation?
13. If you have solar P.V. how would installer propose to take advantage of any surplus generation?
14. If your property does not have an up to date Energy Performance Certificate (EPC) ask if this necessary and what is the minimum standard they property must reach? At present the EPC should be at least C.
15. What grants (if any) are available? Are there any low interest loans?
  - Because of forthcoming need to reduce carbon emissions from the millions of existing domestic heating systems, manufacturers are looking at ways to develop heat pump technology. Overcoming the limitations of existing systems without the need to up size radiators, increase circulation flow rates through micro bore pipes or add a second compressor are additional points to ask your installer.
  - It would be reassuring to get from your chosen installer a guarantee that the system will provide enough heat at low temperatures.
  - Heat pump technology has been around for some 30 years and is common in some countries.

J.R.C. 12.12.2019

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