



FORTEM
Every Home Matters

YOUR NEW AIR SOURCE HEAT PUMP

YOUR GUIDE TO THE WORKS

Heat pump survey, installation, and commissioning
procedure



Pre work survey



During our pre work survey access will be required to:

- Incoming mains power meter box (internal or external)
- Incoming mains power fuse box (internal)
- Current/potential hot water cylinder/position (airing cupboard)
- The rear exterior of the property to identify a suitable location for the ASHP
- Record the mains cold water flow rate at a full-rate outlet in the kitchen, bathroom, or outside tap
- Every room within the property to carry out a room by room heat loss survey. We will measure every wall, window, and door size. Existing and proposed radiator sizes are also recorded
- Please note it is important that you provide us with your electricity MPAN number. This can be found on your energy statement. We will also need to know the price per kwh you pay for fuel electric/gas which can also be found on your energy statement

Good to know



- Furniture and hard flooring will be assessed on a job-by-job basis, and any required removal from areas where work will be carried out will be discussed with you
- A full room-by-room heat loss survey will be conducted, which includes measuring each room, window, and door to determine how much energy is being lost. Once we have the results of these calculations, we will be able to accurately size the heat pump and radiators to match the property's requirements
- Radiator positioning will be planned to work around fixed furniture wherever possible, in order to avoid or minimise the need for alterations or removal
- When positioning the outdoor unit, it's important to consider the maximum allowable pipe distance between the unit and the cylinder to ensure optimal efficiency
- ASHP-compatible hot water cylinders are typically larger than traditional vented cylinders, which would need to be replaced during installation. If the current airing cupboard or cylinder location isn't large enough to accommodate the new cylinder, we will assess the possibility of enlarging the cupboard. If expanding the cupboard isn't feasible, we will explore relocating the cylinder to a different area and, if necessary, create a new cupboard to house it

FAQ



Why do you have to replace all the heating pipes and radiators?

- Our ASHP installations include a full heating system, ensuring no undersized or defective pipework is used and that correctly sized radiators are installed for optimal performance.

It's heard people say ASHP's don't work properly and costs a fortune to use?

- We can't speak for how other companies install ASHP systems, but we can confirm that our installations are designed and carried out according to current guidance and regulations, ensuring optimal efficiency.

How much will my new system cost to run?

- We can provide an estimated annual usage in KWH; however, cost depends on actual usage and how much an individual is being charged for their unit rate of electricity.

I normally have the hot water and heating on for a couple of hours a day. Will this be the same with my new system?

- Your new ASHP heating system will operate more efficiently if you maintain a constant, comfortable temperature. This allows the compressor to run at a reduced rate, avoiding fluctuations in energy use. For hot water, it's recommended to keep the system on 24/7, ensuring the heat pump works steadily, heating only the water that's needed while topping it up a few times a day.

What would be the best temperature to keep my thermostat at?

- Comfortable temperatures vary for each person, but generally, an air temperature between 18-21 degrees is considered average.

A guide to installation - Day 1

Base installation

Day 1 of the installation will involve installing the Air Source Heat Pump base at the exterior of the property.

- This involves installing a solid, level base made of 600mm square concrete slabs to support the outdoor unit. The position of the outdoor unit will be pre-agreed during the installation survey.
- Laying the base will take 1-2 hours, and if there is access to the area, the customer does not need to be home while this work is being carried out.

A guide to installation - Day 2

Main installation day

This is the main installation day. This day will be quite busy, with 4-5 engineers on-site, along with all necessary materials and equipment.

- Carpets will either be protected or removed where necessary.
- The work will include a full strip-out of the existing heating system and the removal of the current hot water cylinder (if applicable).
- The outdoor unit will be installed.
- The new heating pipework and radiators will be fully installed in the locations agreed during the pre-install survey.
- The new domestic hot water cylinder will be installed, typically in the existing cylinder location, with hot and cold pipework connected to the current supplies.
- Access will be required to every room on the ground and first floor to install new radiators.
- Engineers' equipment will be brought into the property, and floorboards may be lifted on both the upstairs and downstairs levels, depending on the house type and contract.
- Property occupants, children, and pets will need to be kept away from all working areas to ensure their safety.
- Once the installation is complete, the carpets will be refitted, and all debris and packaging will be cleared away.
- Oil-filled radiators will be provided for use until the outdoor unit is fully operational after commissioning.
- For safety reasons and due to the installation process, hot water will not be available on days 2 and 3, until commissioning is completed on day 4.

A guide to installation - Day 3

Electrical and control wiring installation

This is the electrical installation day and is less intrusive than the heating installation with 1-2 engineers present on site.

- Carpets will either be protected or removed where necessary again.
- Property occupants, children, and pets will need to be kept away from all working areas to ensure their safety.
- The work will include the installation of a new or additional fuse board.
- The work will include interconnecting the power and control wiring from the fuse board to the cylinder and outdoor unit locations, as well as the installation and wiring of an outdoor temperature sensor.
- Floorboards may be lifted to route the cabling.
- Once the electrical installation is complete, all flooring protection will be removed, and carpets will be refitted where applicable. The property will be left clean and tidy.
- Remember - You will still have oil heaters, but there will be no hot water until commissioning is completed.

A guide to installation - Day 4

ASHP & system commissioning

This is the system commissioning day, which is a relatively quiet half-day where the engineer will complete the system commissioning.

- Our engineer will set the system controls to the designed settings, ensuring the system operates at optimal efficiency.
- The hot water cylinder will be heated to the designed temperature, typically between 50-55 degrees.
- The heating system will have a cleaner added before it calls for heat and brings the radiators up to temperature, which typically takes 1-2 hours. Once the system reaches temperature, the heating will be drained and refilled with an inhibitor and biocide.
- Our engineer will perform a heat test on the installation and take readings to complete all necessary commissioning paperwork.
- Our engineer will explain how the system operates and show you how to adjust any user settings if needed.
- You must be present on this day for the handover and to sign the required installation paperwork.