

Our Installers Guide to Wet UFH with Spreader Plate Systems

Installing a Wet Underfloor Heating system may seem a little daunting as there are a few things that need to be taken into consideration. To help we have detailed below step-by-step installers guide to help get you through the process.

The installation of a spreader plate system can be a little more daunting as it typically requires working at height. The possibility of falling though the joists whilst installing the underfloor heating system can make things a little scary at times. To help we have detailed a 7 step by step guide to help with the process.

Install for UFH screed system:

- Setting out the spreader plates. Working on a spreader plate system can be difficult for anyone due having to install at height whilst on joists. We advise the use of a fall protection system such as air bags sited beneath the work area and a safety harness be employed as a secondary measure. Laying a series of boards around where the first circuits will be should help in allowing work to take place on a solid surface without the need balance on the joists.
- Before laying spreader plates a series of timber battens should be fix the length of each joist 75mm –
 100mm below the top of the joist as to allow for the install of 50mm 75mm insulation between joists on
 top of the battens.
- 3. Starting to lay and secure your spreader plates. Spreader plates should be laid with a minimum gap 200mm from the wall edge where the underfloor heating pipes will be flowing from and back to. This allows space for the turns on the pipework. Spreader plates are secured using flat head nails (assuming timber joists), one nail in each of the four corners of the plate and two in the middle of the plate where the edge of the plate seats on to the supporting joist. Plates shouldn't be overlapped, they should have 5mm between each plate as they expand and contract when heating/cooling.
- 4. Notching out the joists for pipe, flow and return runs. Once a plan has been made for the setting out of the underfloor heating pipes it can be determined where the flow and return pipe runs will be located. It is recommended that notching out 20mm 25mm from the top of the joist in these locations before the UFH pipe circuits are laid. This allows space for the flow and return, turns at the ends of runs in the circuits. We advise all notching is complete before installing pipe work as doing so with pipes installed may lead to cuts within the circuit.
- 5. Installing the manifold. The manifold should be installed according to any CAD drawing that may have been provided. Typically, the manifold is installed in the centre of a property or close to the heat source (such as a boiler or ground source heat pump). When installing a manifold to a wall or temporary structure, we advise that it should be installed level and at a minimum height 600mm from the surface to aid pipe connections.
- 6. Installing underfloor heating pipes. Assuming the spreader plates and manifold have been installed and secured the piping can commence. Before you bevel and install the Eurocon connections to the pipe, we recommend installing a 20mm conduit sleeve to the flow pipes. This will create an air gap between the pipe and conduit, this will eliminate any hot spots if the flow pipes bunch together. The conduit should run from the manifold to the entrance of the allocated room for the circuit you are installing. Once the underfloor heating circuits have been installed, we advise that the underfloor heating pipes turns are tacked down using white tacker clips, and any bends that are sticking up from the plates are bent downwards to prevent them popping out of the spreader plates.
- 7. After the underfloor heating pipes have been installed and connected to the manifold at both ends, the system needs to be tested for leaks and/or damaged pipes. Make sure that all the Eurocon bolts and valves

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are installed correctly and tightened. Then remove the caps surrounding the flow meters, and un-tighten the meters a couple of turns. This will allow water or air to be passed through the flow pipes to the return points at the manifolds. We recommend using an air compressor as this provides a more accurate reading when pumping up to the required 5 bar of air pressure (PSI). If this option isn't available, then attach a hose pipe to the fill and drain port on the manifold and pressure the system with water. Please be aware that using water will solely rely on the water pressure being fed into the system. Ensure the system holds pressure for at least 1 hour without noticeable pressure drops.

Note: If pressure testing using water, we recommend this be drained from the system after testing to eliminate the risk of freezing within the pipes as this will result in pipes splitting due to expansion caused when melted.

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