

SNUG

UNDERFLOOR HEATING

SUSPENDED HEAT PLATE SYSTEM

INSTALLATION GUIDE

A DIVISION OF



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SUSPENDED HEAT PLATE - INSTALLATION GUIDE

INTRODUCTION

Our Snug Suspended Heat Plate system makes installing underfloor heating on joists simple. This innovative system is directly mounted onto joists or battens under the floorboards. Ideal for installations when joist are already exposed, it seamlessly fits between joists, offering a low-profile solution that adds minimal height increase to your floors.

STEP ONE: PREPARATION

It's essential to ensure that the joists meet certain criteria for a smooth installation process. Check that the joists are level and evenly spaced (usually 400cc), providing a solid foundation for the underfloor heating system. Fill the void between the joists, first with a PIR insulation then fill the remaining area with rockwool to avoid any heat loss. Additionally, ensure the area is clean from debris, and inspect for any surface irregularities like knots or nails that could affect the installation quality.

REQUIRED TO FIT

To successfully install our Snug Suspended Heat Plate system, you'll require:

- Flat head nails
- Hammer

Fig. 1

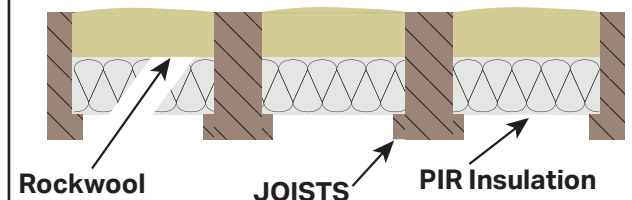


ILLUSTRATION PURPOSES ONLY

STEP TWO: INSTALLING THE HEAT PLATES

Start by placing the first plate in a corner of the room, maintaining a 200mm gap (Fig. 2) between the plates's edge and the walls (to allow for 180 degree pipe bends). Secure the plate to the joist by nailing one flat head nail to the centre of each side of the plate.

As you continue to lay the plates, make sure each plate is given a 5mm gap to allow for heat expansion (along both the same run and neighboring one).

The plates are tearable so any size room can be accommodated.

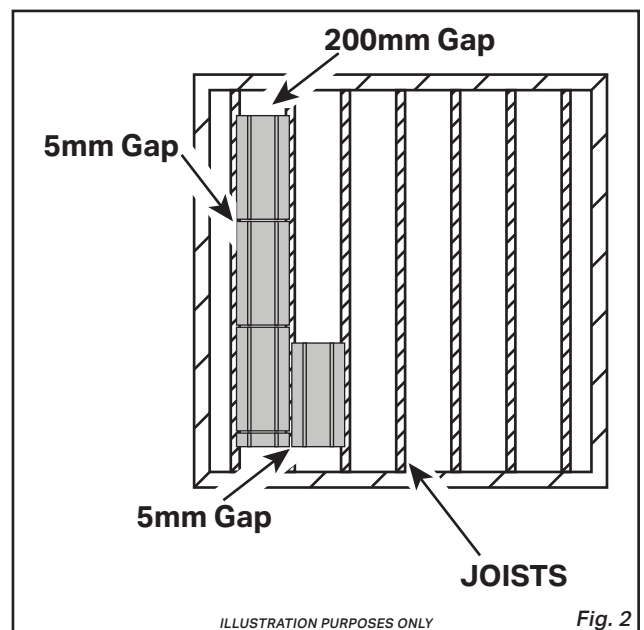


ILLUSTRATION PURPOSES ONLY

Fig. 2

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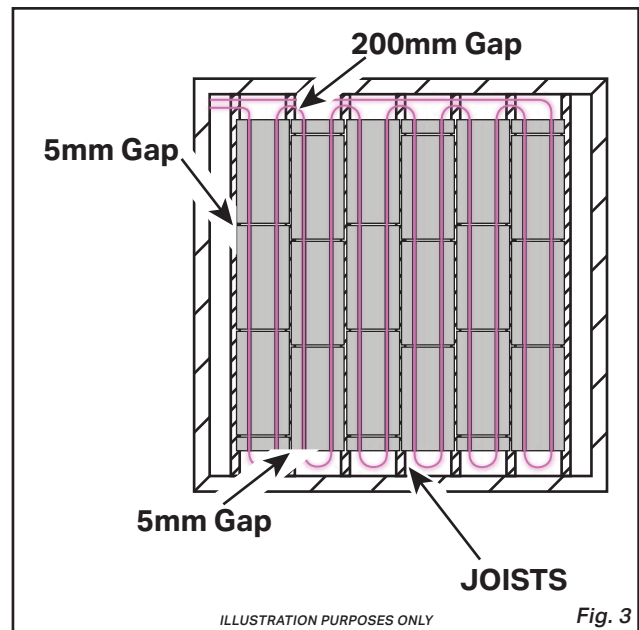
STEP THREE: INSTALLING THE PIPE

Follow the Snug Pipe Layout design and insert the pipe into the Snug Heat Plates accordingly.

All suspended heat plate systems will be designed in a serpentine pattern (Fig. 3). Please read page 5 for more information.

STEP FOUR: PRESSURE TESTING

After installing all of the pipework, it is crucial to perform a thorough pressure test before proceeding with the install of the floorboards. Refer to our Pressure Test Guide, available on our website, for detailed instructions.



INSTALLING PIPE INBETWEEN JOISTS

When installing underfloor heating within solid wood joists, ensure notching or drilling adheres to the guidelines of Building Regulations Part A.

- *Drill holes should be positioned through the neutral axis, within 0.25 to 0.4 times the joist span length.*
- *Maintain a minimum spacing between holes of at least 3 times the diameter of the hole.*
- *Notches should not exceed 0.125 times the joist depth and should be positioned within 0.07 times the span from a support, but no farther than 0.25 times the span.*



Ensure that the ambient temperature during pipe installation is at least +5°C.



All exposed pipe work within the joist spaces must be properly insulated.



WARNING



If the pipe gets kinked during the installation process, replace the coil.

SUSPENDED HEAT PLATE - INSTALLATION GUIDE

STEP FIVE: INSTALLING THE FLOORBOARD

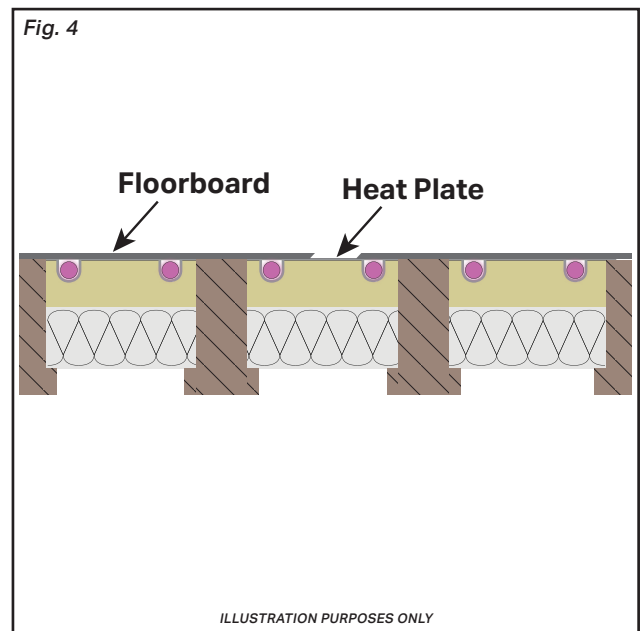
Before placing the structural floorboards, thoroughly clean the heat plates to ensure a level surface. To ensure optimal results, maintain pressure within the pipework during the installation of the floorboards. Alternatively, if pressure cannot be maintained, conduct a secondary pressure test after floorboard installation.

WOOD FLOORING

When installing hardwood floors, ensure the timber has a moisture content of 8-10%. It's essential to verify with the flooring supplier that the chosen floor is compatible with underfloor heating.

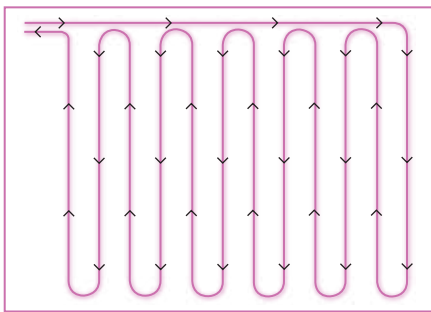
For tongued and grooved joints in the floor, use PU adhesive or a PVAc adhesive compliant with durability D3 of BS EN 204. Maintain a minimum 10mm gap along the floor's perimeter under the skirting to allow for potential floor swelling from moisture changes. Remove all wedges used during flooring installation once the process is finished.

For the system's initial setup, adjust the mixing valve to provide a temperature ranging from 20°C to 25°C, maintaining this for at least 3 days. After this period, you can raise the flow temperature to the designed maximum, ensuring this level is maintained for an additional 4 days to finalise the installation process.

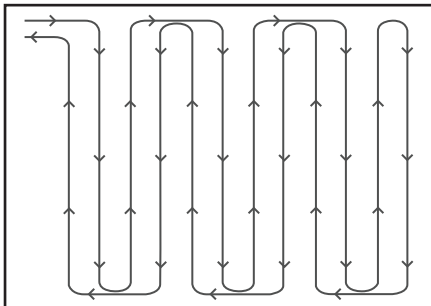


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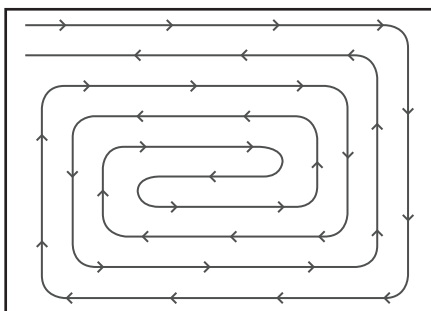
UNDERFLOOR HEATING PIPE LAYOUT OPTIONS



Serpentine - The pipe will run the length of the heated area before running back and forth through the heated area.



Double Serpentine - The pipe will run back and forth through the heated area at a 3-to-1 ratio. Once reaching the far end of the area, the pipe will run back on itself at the correct spacings filling any gaps.



Spiral - The pipe will run around the edge of the room making its way to the centre at double spacings, once at the centre, the pipe will work it's way out through the middle of the already layed pipe.

*The highlighted pattern is the best recommended pattern for this system.