

Floor installation instructions

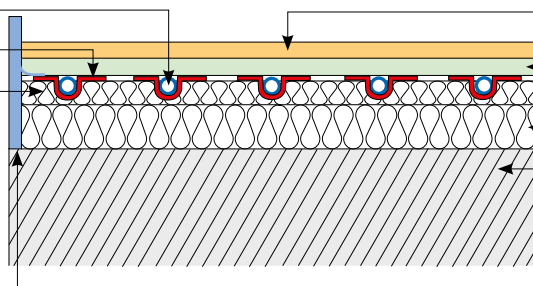
DPF14 – 14mm Fastflo™ in diffuser panels, for floating floors

Supplied by Nu-Heat

Fastflo-14™ tubing
Diffuser plate
Nu-Heat TriPanel 25mm EHD polystyrene

Supplied by others

Floor covering
18 or 22mm chipboard
Base layer of insulation
Floor structure (Concrete or timber deck)
Edge expansion (if applicable see below)



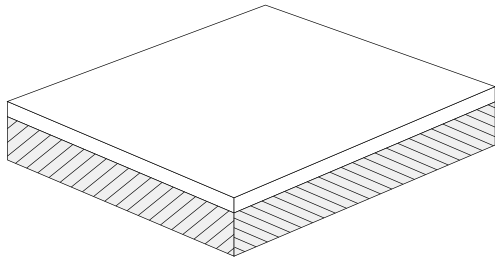
TECHNICAL INFORMATION

Substrate and Insulation

If the floor is to be tiled, it is important that the underlying substrate is flat and level to at least SR2 standard (5mm deviation over 3 metres) so that deflection is minimised. In all cases, the insulation installed below the panel must have a compressive strength higher than 140kPa.

XPS (extruded polystyrene) boards including Polyfoam, Styrofoam and Yelofoam suitable. Expanded polystyrene is not suitable. The thickness of the insulation is dependent on Part L of building regulations, which can vary. Nu-Heat normally recommends 70mm XPS board.

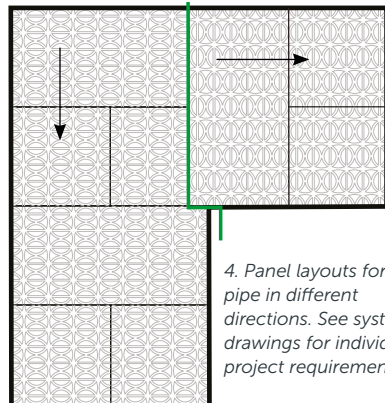
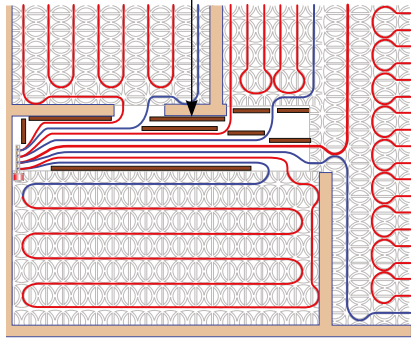
INSTALLING THE BASE LAYER OF INSULATION



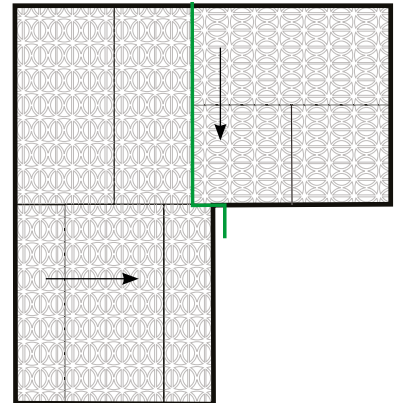
- 1 Lay the base layer of insulation: minimum 70mm insulation (see note on previous page) over the floor structure – concrete slab or beam & block floor.

INSTALLING THE POLYSTYRENE TRIPANEL

Use battens to support chipboard where necessary.

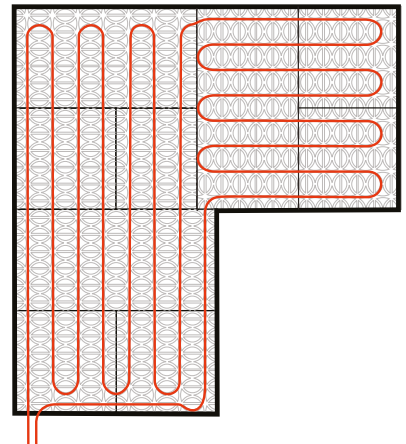


4. Panel layouts for pipe in different directions. See system drawings for individual project requirements.

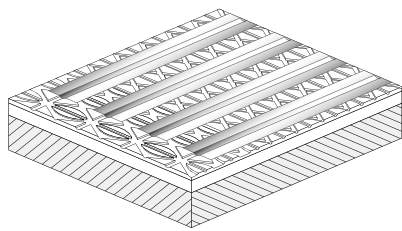


- 2 Where pipes are shown grouped together on the system drawing battens should be fitted both sides of the pipes to ensure adequate support. Adequate space must be left for the pipes to be installed at 20mm centres between the battens.

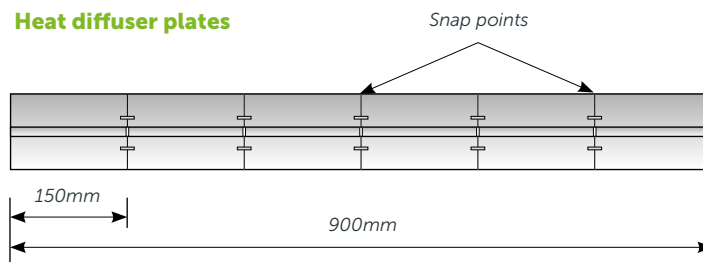
- 3 Lay the TriPanel across the main floor surface **ensuring that it is placed in the correct direction for the required pipe centres**. The panel should be laid in a brickwork pattern to ensure the joints are staggered. If the tube layout in the room has pipe running in different directions then the panel should be laid in the correct direction for the required pipe centres. The system drawings should be carefully followed to ensure the panel is installed correctly.



INSTALLING THE METAL HEAT DIFFUSER PLATES



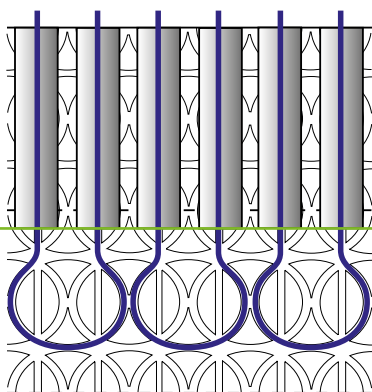
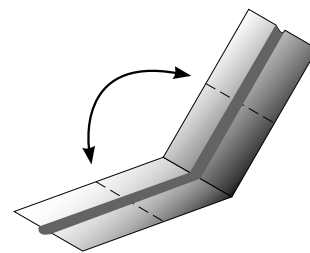
Heat diffuser plates



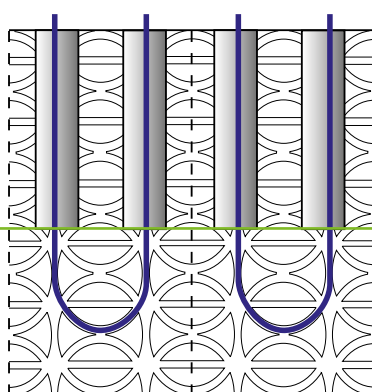
- 4 Install the heat transfer plates firmly into the TriPanel leaving a small gap between plates and stopping the plates in the position shown in the illustrations below. The plates have snap points to allow the plate to be snapped to length.

Note: To avoid injury always wear gloves when handling heat diffuser plates.

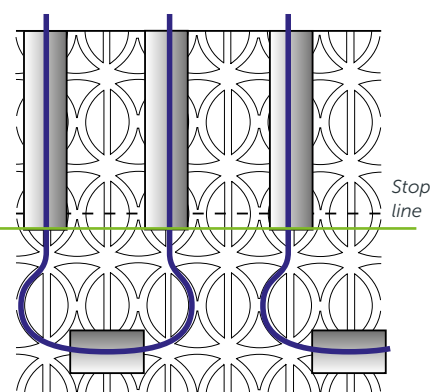
Take care when snapping the plates not to leave a burr as this could cause damage to the heating tube when installed.



116mm spacing



175mm spacing

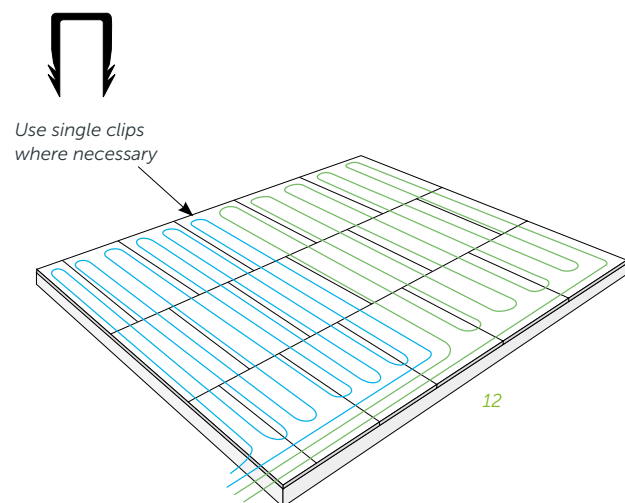
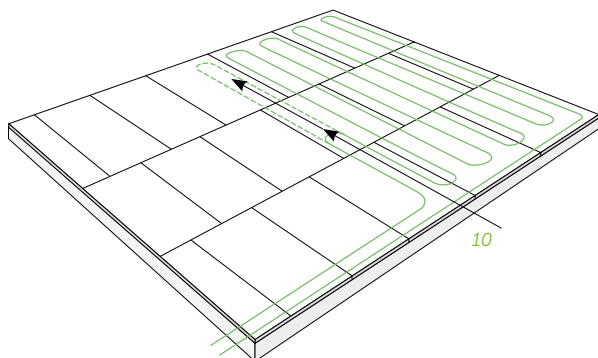
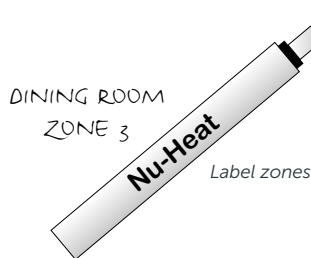
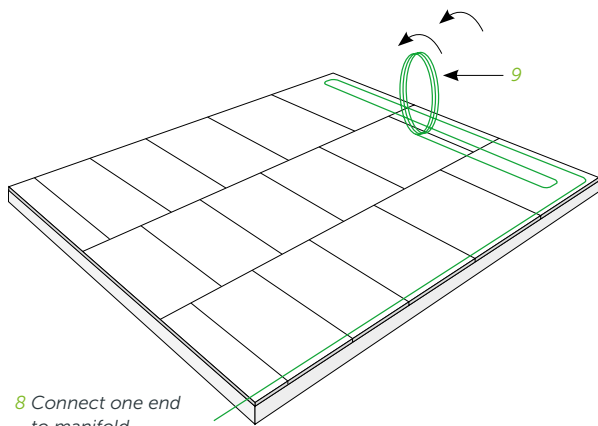


232mm spacing

- 5 Ensure the plates are installed at the correct centres for the pipework, this will be shown on the system drawing.



SEQUENCE OF LAYING THE HEATING TUBE IN THE FLOOR



6 Firstly install the furthest room from the manifold. Ensure that the correct coil is selected for the room to be installed. The coil is marked every metre with its overall length and remaining coil length. The coil lengths for each room will be shown on the system drawings.

7 Connect one end of the coil into the correct port of the manifold as described in the *Installation Manual*. The tube should be clearly labelled with the room name.

8 Lay the tube from the manifold to the zone following the CAD plan and example layouts in this guide.

9 Lay the coil as shown on the system drawing clipping the tube and inserting additional plates where necessary. Using a tube un-coiler will reduce the need for additional clips.

Note: Do not kink the tube.

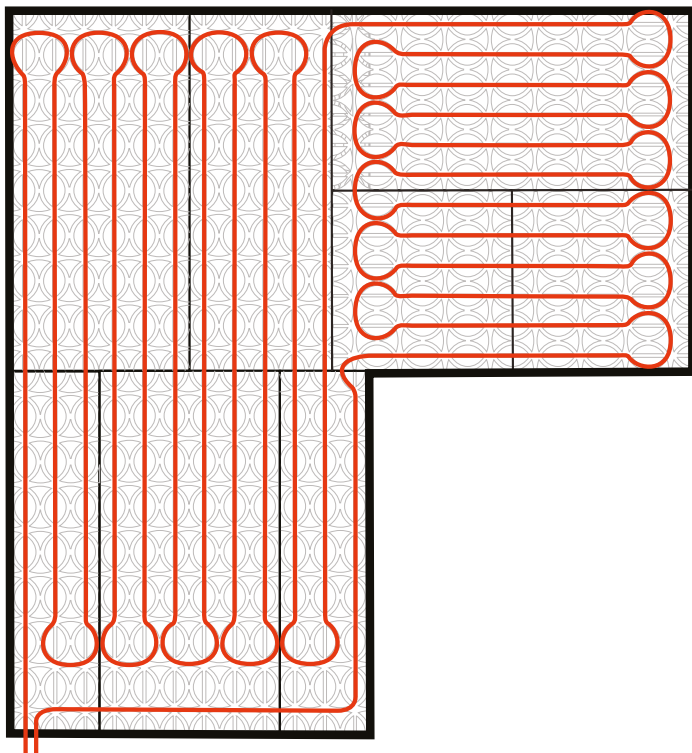
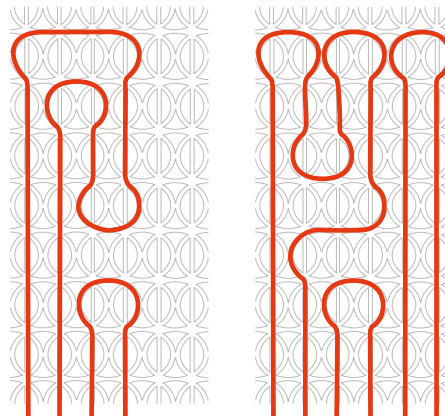
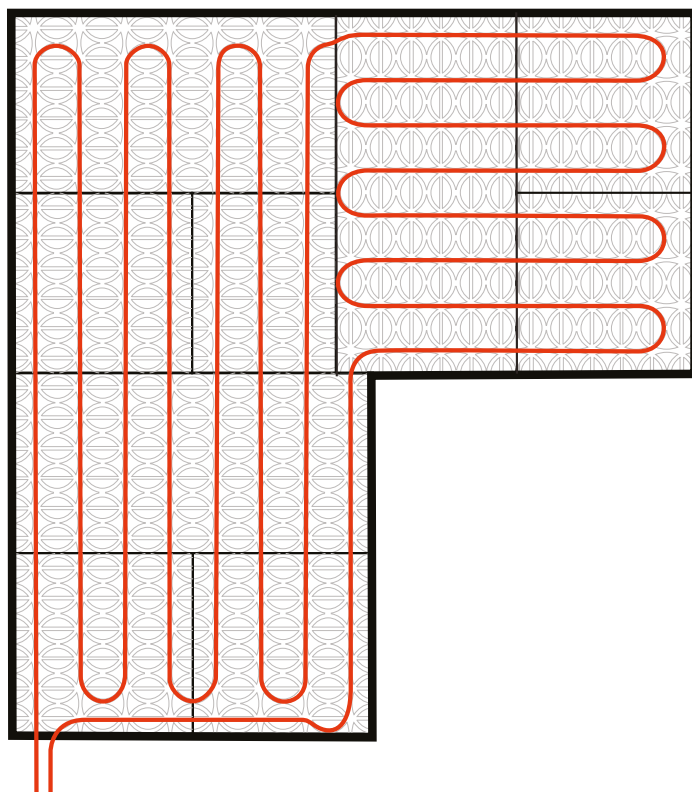
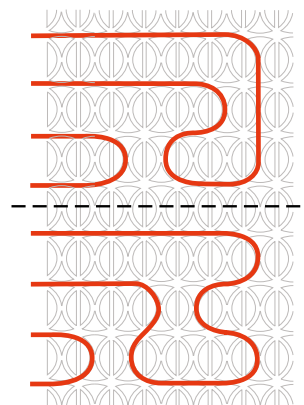
10 Continue installing the tube until there is just enough tube remaining to return to the manifold **plus any difference in supplied length and cut-length** as stated on the system drawings. The metre markings on the coil can be used to help judge the amount of pipe remaining.

Note: All tube coils within a single zone must be no more than 10% different in length.

11 Once back at the manifold do not cut the tube to length or connect it to the manifold unless the zone has only one coil. Label the return pipe to ensure the pipes do not get crossed when connected at a later stage.

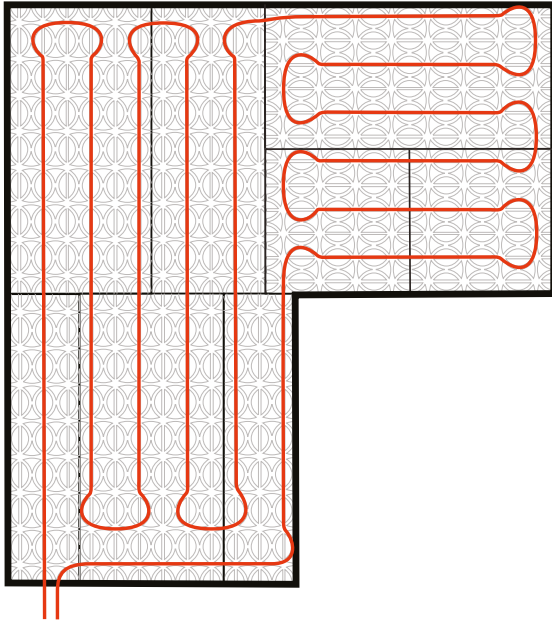
12 All remaining coils for the zone can now be installed in exactly the same way until the room is fully covered with tube.



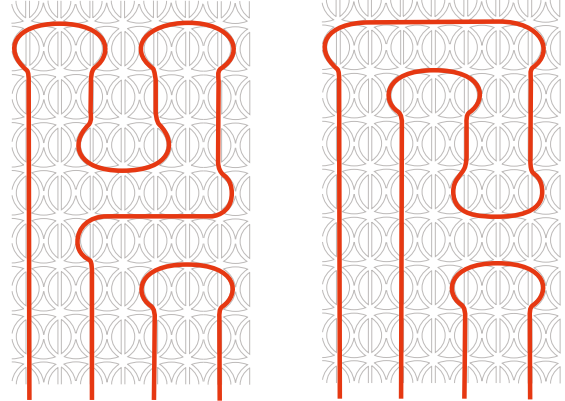
TYPICAL ROOM LAYOUT SHOWING DIFFERENT FASTFLO™ TUBE SPACINGS*Pipe layout with 116mm spacings**Balancing coil lengths with 116mm spacings**Pipe layout with 175mm spacings**Balancing coil lengths with 175mm spacings*

TYPICAL ROOM LAYOUT SHOWING DIFFERENT FASTFLO™ TUBE SPACINGS

Pipe layout with 232mm spacings

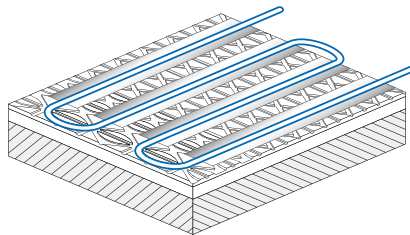


Balancing coil lengths with 232mm spacings



CONNECTING THE PIPE AND PRESSURE TESTING

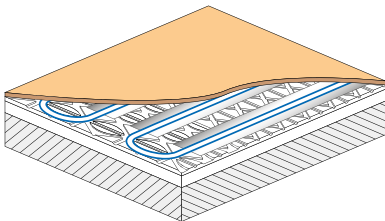
- 13** When the correct number and lengths of tube are laid in the floor, trim excess coil length and connect to the manifold as described in the *Installation Manual*. All ports on the manifold should now be connected.



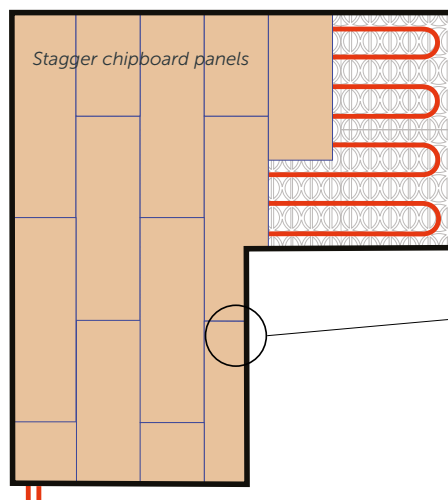
Note: Always mark the flow and return pipes with their correct zone names. Do not get pipes crossed.

- 14** The manifold must now be filled and pressure tested as described in the *Installation Manual* before the 18 or 22mm moisture resistant chipboard is fitted.

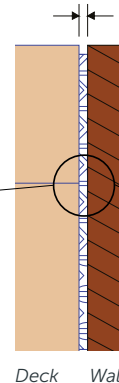
INSTALLING THE CHIPBOARD DECK



- 15** The chipboard flooring should be installed with the joints staggered and glued. Leave a 10mm expansion gap between the flooring and the wall.



Leave a 10mm expansion gap between the deck and wall



Glue joints as advised by the chipboard manufacturer.

Deck Wall

