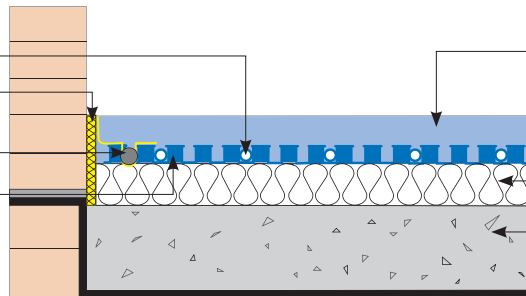


## Floor installation instructions

# SP14 – 14mm Fastflo™ installed with fixing panel

### Supplied by Nu-Heat

14mm Fastflo™ tubing  
Edge isolation strip  
Foam edge seal strip  
Screed floor panel with self-adhesive backing



### Supplied by others

50mm liquid anhydrite screed  
Floor insulation (see note below)  
Concrete slab

## TECHNICAL INFORMATION

### Insulation

In ground floors, the insulation beneath the floor should be 70mm 'Celotex' or equivalent, or conform to Part L of the Building Regulations; whichever is greater.

In upper floors, insulation should be a minimum of 30mm 'Celotex' to prevent downward migration of heat. Edge isolation strip is supplied by Nu-Heat; all other insulation and the protection layer are most economically sourced from local builders' merchants.

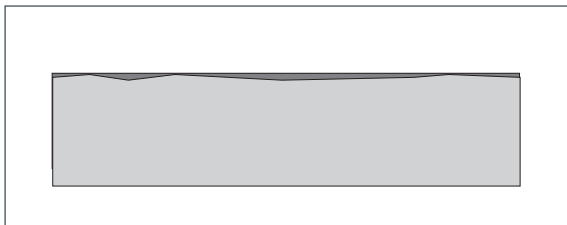
### Floor structure

Edge expansion strip is placed around the perimeter of the room. Floor panel is laid in an interlocking brickwork pattern over the floor insulation layer and the liquid screed is poured over the pipework.

**Note:** The edge isolation strip supplied by Nu-Heat should be fitted around all walls as an expansion medium. On external walls additional insulation material will be required to comply with Building Regulations.

## SOLID CONCRETE OR SCREED SUB-FLOORS

Before installing the underfloor heating check the condition of the solid concrete or screed sub-floor. If insulation is not being installed, any defects must be repaired and loose, dusty or friable material must be removed and the surface primed to seal the floor prior to laying the castellated panel.



To level the sub-floor, prime it, then use self-levelling compound and let it dry out thoroughly before installing the insulation and castellated panels.

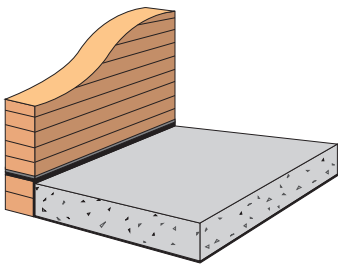
## PERIMETER TANKING

If skirting boards are removed the perimeter wall should be repaired and filled with an appropriate filler or expanding foam. All gaps must be filled to provide a flat surface for the perimeter expansion strip and prevent self-levelling compound from seeping out at the edges of the room.

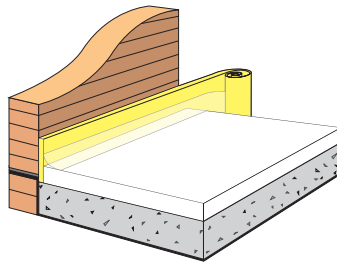
Seal any gaps between wall and floor before fitting castellated panel.



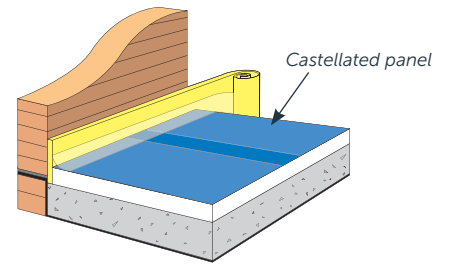
SEQUENCE OF LAYING THE FLOOR



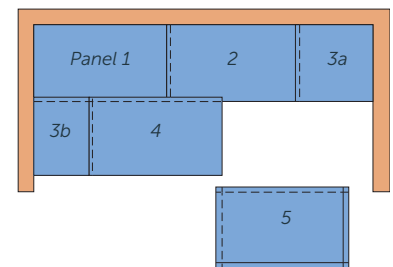
1 Lay the damp-proof membrane (dpm), concrete slab and damp-proof course (dpc) in accordance with current Building Regulations.



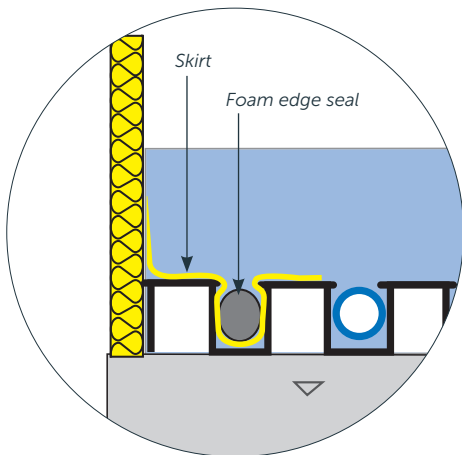
2 Roll out the edge isolation strip around the sides of the room and lay the floor insulation in accordance with current Building Regulations. Keep the 'skirt' of the edge isolation strip above any insulation.



3 Fit the castellated panel, overlapping edges. Keep the 'skirt' of the edge isolation strip above the castellated panel.



**Note:** Lay panels with an overlap of one castellation with offcuts used at the start of the next row in order to stagger joints. This will help to prevent screed from penetrating or floating the panel.

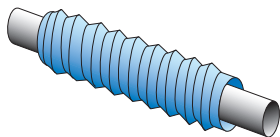


4 Secure the 'skirt' of the edge isolation strip into the first row of the castellated floor panel using the foam edge seal strip.

Seal areas through doorways with flexible sealer to prevent screed from seeping below the panel.

5 Fit the 14mm Fastflo™ tubing as in the instructions on the last page.

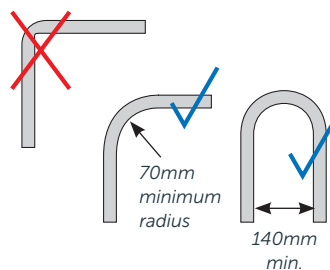
6 Screed the floor whilst the system is under pressure.



Notes:

On floor areas over 40m<sup>2</sup> a protective sleeve should be used to cover tubing where it crosses expansion joints. Please contact Nu-Heat for supply.

In order to avoid damage, take care when walking across the floor panels.



Never kink the Fastflo™ tube as this will damage the tube and restrict water flow.

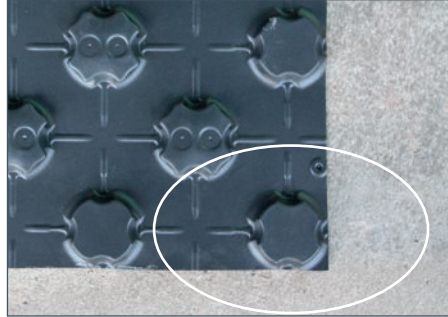
### FITTING THE CASTELLATED PANEL

Care should be taken to avoid damaging the castellated panel during installation by wearing flat-soled shoes and keeping foot traffic to a minimum. Do not kneel directly on the panel, use a kneeling board. Other trades must be kept out off site until the castellated panel has been fitted and screed has dried sufficiently for foot traffic.

**Note:** Castellated panel should not be fitted in temperatures below 5 °C.



- 1 The first row is joined together and then rolled up to be laid as one strip to aid alignment. With the backing left in place and starting in the farthest corner of the room, lay the panel out



- and cut to fit as necessary. The panel moulding requires it to be laid with the corner pictured above facing towards the centre of the room.



- 2 Continue along one wall overlapping each panel by one castellation. Cut off any excess panel at the end of the run and use this at the start of the next run.



- 3 Remove the self adhesive backing on the outside edge of the first panel and stick that corner to the floor pressing down firmly.



- 4 Roll the rest of the panels back towards the corner. Slowly unroll the panel pulling off the self-adhesive backing as you go.

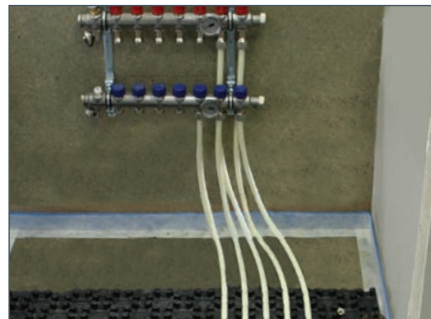


- 5 Use the castellated panel that was cut off to start the next row at the top of the room. Repeat steps 3-4 overlapping the side of the panel with the first row to create a brick-bond pattern.



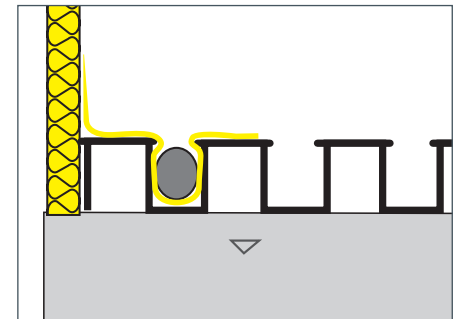
- 6 Fill the entire room with castellated panel. Areas that are not securely stuck down can be stapled, this is especially important around the perimeter of the room.

**Note:** Use offcuts of castellated panel in other rooms.



- 8 Leave a section approx. 400mm wide below the manifold clear to allow close spacing of pipes. The floor in this area should be sealed to prevent seepage of screed.

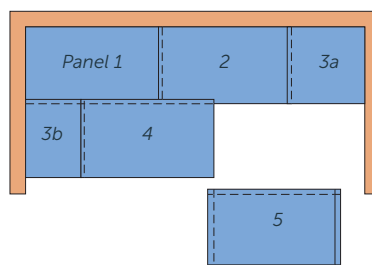
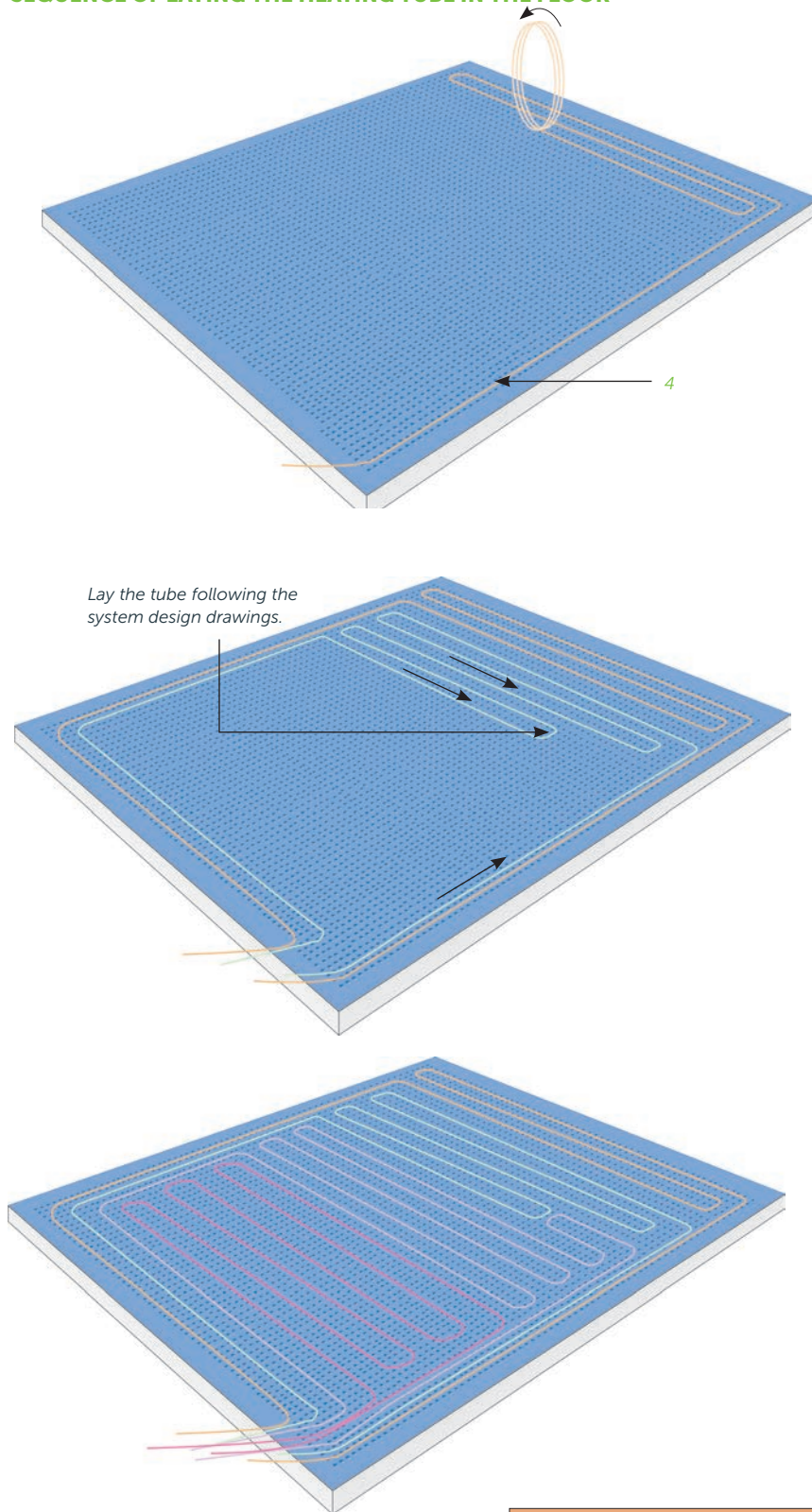
Protect castellated panel in this area from damage by using a kneeling board until the screed is laid.



- 9 Secure the 'skirt' of the edge isolation strip with the foam edge seal strip.



## SEQUENCE OF LAYING THE HEATING TUBE IN THE FLOOR



- 1 Check the number and length of floor tubing coils needed for the room on the system plans. Each coil is marked every metre with its overall length and remaining coil length ending at 0m.

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

- 2 Connect one end of the tube to the correct port on the manifold as described in the *Installation Manual* and label it clearly.
- 3 Lay the tube from the manifold to the zone on the quickest, most direct route.
- 4 On reaching the zone, start unrolling the tube pushing it into the panel as you go. Follow the layout shown on the system plans making sure to use the correct spacing as detailed.
- 5 Now simply continue working across the floor and back to the manifold making sure the floor is fully and evenly covered with tube.
- 6 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*.
- 7 As pipe is installed through the doorway it is necessary to cut the expansion strip. Seal the cut around the pipe with tape to ensure liquid screed cannot run into the adjoining room.



- 8 Pressure test the system as described in the *Installation Manual*.

**Note:** Lay panels with an overlap of one castellation with offcuts used at the start of the next row in order to stagger joints. This will prevent liquid screed from penetrating or floating the panel.