

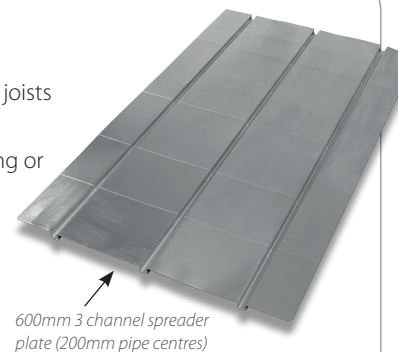
Installing a spreader plate system

Aluminium spreader plates are available in two widths and designed to fix between joists set at 400mm or 600mm spacing.

400mm spreader plates come in two options, **3 channel** giving 150mm pipe spacing or **2 channel** giving 200mm pipe spacing.

600mm spreader plates are supplied with **3 channels** giving 200mm pipe spacing.

Pipe is laid into the preformed 'Omega' shape channels, insulation fitted below the spreader plates will ensure maximum performance from this system.



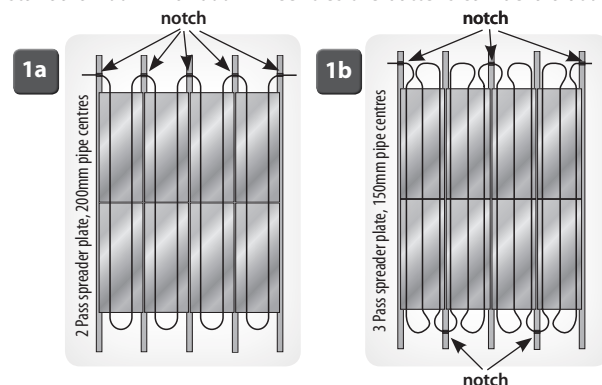
You will need:

- Hammer
- Saw
- Nails
- Staple Gun
- Scissors
- Stanley knife
- Safety Glasses/Gloves
- Wire Cutters
- Tape Measure

The edges and corners of aluminium spreader plates can be very sharp, take care and wear appropriate clothing/gloves when handling.

1 Step by Step instructions

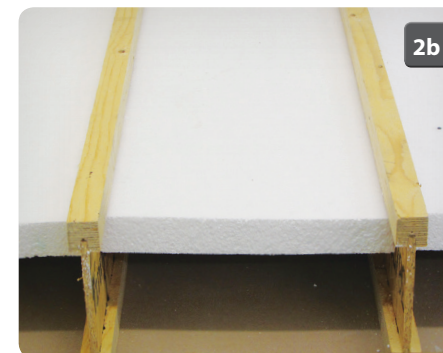
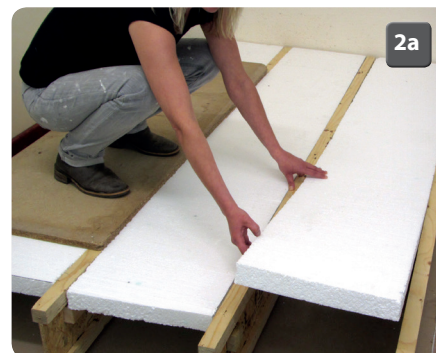
- 1 Notch joists according to building regulations if permissible (**1a**)* or secure battens to the top of joist (**1c**) to allow pipe to pass between the joists allowing for bends and returns as per pipe layout (adjustment to pipe layout is acceptable on site). If attaching battens use 18mm minimum depth to allow for pipe and ensure all fixings are secure and hammered flush. If the joists are not at standard 400mm or 600mm centres the battens can be laid at 90° across the joists.



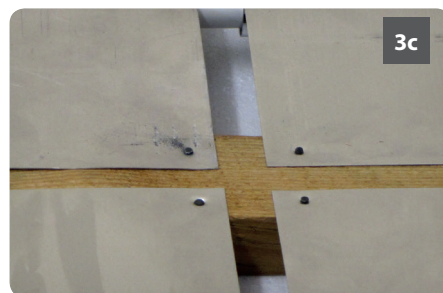
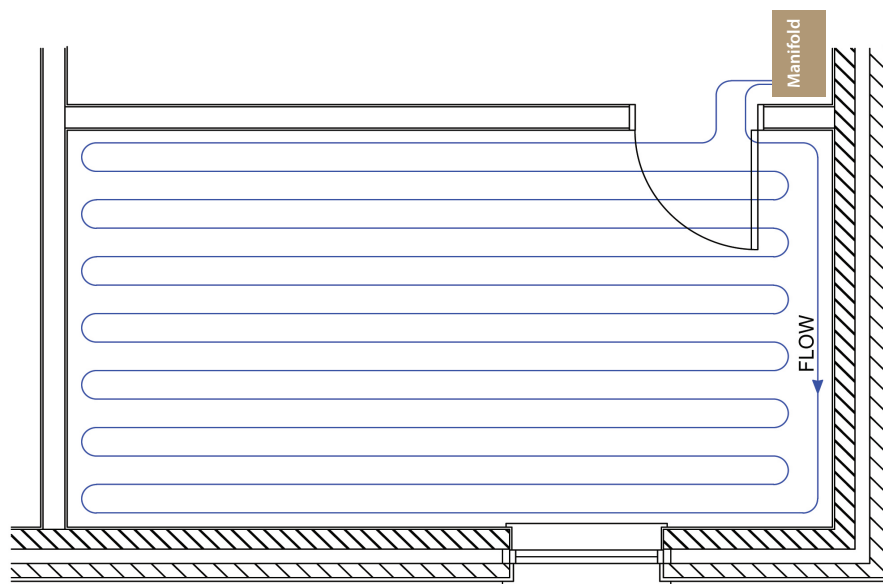
* When installing spreader plates with 3 passes of pipe (**1b**), notching of joists will be required to alternate ends of the joist to allow pipes to pass between each joist.



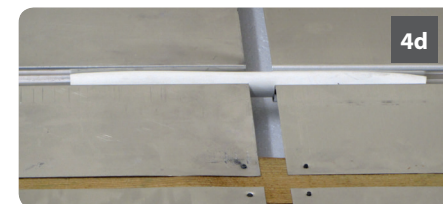
- 2 Ensure adequate insulation is fitted between joists. If battening, insulation should be level with the top of the joists (**2a**) leaving an 18mm gap for pipe, if notching joists set the insulation 18mm below the top of the joist (**2b**). We advise a 50mm solid insulation board or 150mm mineral wool. Electrical wiring and other services contained in the floor construction should pass under the insulation. All other water pipes should be lagged.



3 Before fitting the spreader plates study the pipe layout if supplied and familiarise yourself with the design and layout **(3a)**. Plan your pipe routes and spreader plate locations allowing 250mm between the end of the spreader plates and the wall **(3b)** to allow pipe to turn and return back into the spreader plate and 15mm between the spreader plates for expansion **(3c)**.



4 Wearing safety gloves due to sharp edges lift the first spreader plate into place measuring 250mm from the wall **(4a)** and fix the spreader plate along the top of the joists using staples, nails or screws ensuring they are flush fitting **(4b/c)**. Allow a 15mm expansion gap between each plate. A good tip is to press a short length of pipe into the pipe channel to help line up the plates before fixing in place **(4d)**.



5 All pipe runs start and finish at the manifold, by fitting the manifold in place before laying the floor heating pipe this will give a reference point for the start and end points. Allow sufficient pipe for cutting and fitting at a later stage.

6 Pipe is best laid using two people, one to roll out the pipe whilst the other presses the pipe into the channels **(6a/b)** of the spreader plate, following pipe layout or desired routes. Be careful not to kink the pipe. 15mm masonry nail pipe clips can be used to secure pipes in notch **(6c)**.



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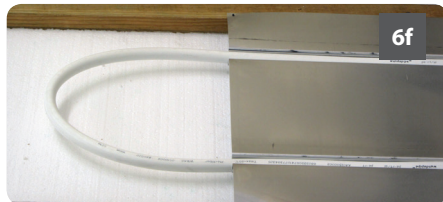
6c



6d



6e



6f

3

7 Having followed the pipe layout (if requested) you will reach the point of having to return the pipe to the manifold. Create your final bend and run the pipe back to the manifold using the notches/gap in batten (**7a,b,c,d**).



7a



7b

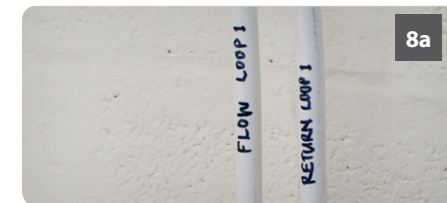


7c



7d

8 Identify flow, return and zone of each pipe in turn using a permanent marker (**8a**).



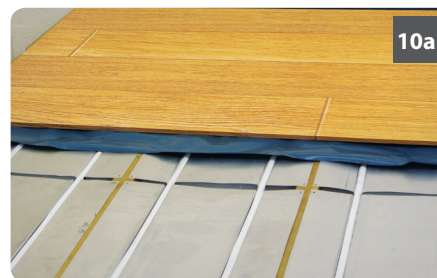
8a

9 Floor probes can be fitted if required to measure the temperature of the floor (**9a**). Limiting floor surface temp to a maximum of 27°C by using floor probes is advisable when using wooden floor finishes. Specialist timber suppliers should be contacted to obtain expert advice on your chosen floor finish. The addition of carpet or rugs on wooden floors can increase the temperature between the floor and carpet, check suitability with specialist suppliers.



9a

10 Many flooring manufacturers i.e. solid wood/engineered board recommend the use of a damp proof membrane (DPM) if laying directly onto the joists. Please consult your flooring supplier. It is good practice to install a thin polythene sheet over the spreader plates (**10a/b**). This will help cut down any potential expansion noise as spreader plates warm up and cool down. This also acts as a DPM.



10a



10b

Technical Information

Maximum heat output	Approx 80 W/m ²	
Recommended flow temperature	45 - 55°C*	
Maximum loop length	100m (16mm MLC Pipe)	
Fire properties	Meets Class 1	
Environmental	Recyclable	
400 Double Spreader	Thickness	0.5mm
	Width	390mm
	Length	1000mm
	Pipe Centres	200mm
400 Triple Spreader	Thickness	0.5mm
	Width	390mm
	Length	1000mm
	Pipe Centres	150mm
600 Triple Spreader	Thickness	0.5mm
	Width	588mm
	Length	1000mm
	Pipe Centres	200mm



*Limiting floor surface temperature to a maximum of 27°C, by using floor probes, is essential when using wooden floor finishes. Specialist timber floor suppliers should be contacted to obtain expert advice on your chosen floor finish. The addition of carpet and rugs on wooden floors can increase the temperature between floor and carpet. Make sure the combined tog value of carpet & underlay does not exceed 2.0 tog. Total thickness of floorboards and any wooden or laminate floor finish should not exceed 25mm.

"When mixed floor solutions are being served from the same manifold, a floor probe must be used in the floor solution with the lower maximum supply temperature. This is to limit the temperature in these floor areas and prevent damage to the floor solution and/or floor finish."