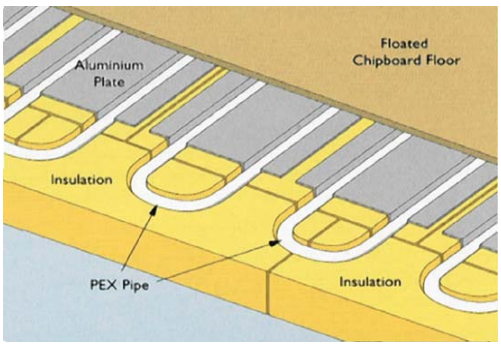
Under-floor (UFH) distributed space heating / cooling systems to suit all types of floor. The ideal partner for use with Heat Pumps, Wood fuel or Bio-oil boilers.

CONCRETE / SCREED SYSTEM

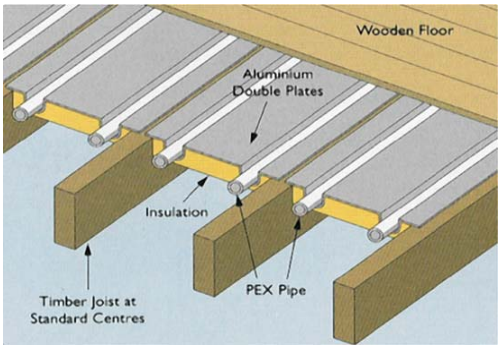
These are the most commonly used system. Insulation is placed on top of a ground bearing concrete slab, 'block & beam' or suspended concrete floor with a damp proof membrane if required. Clip-rail is then fastened to the insulation with PEX pipe fixed into place. The clip rail also raises the pipe away from the insulation allowing the sand / cement screed (min 65mm) to flow all the way around the PEX pipe, ensuring full conductivity. Edge insulation is laid to prevent a thermal bridge between the screed and the exterior wall.
The screed must comply with British Standards codes of practice.

FLOATING FLOOR SUSPENDED



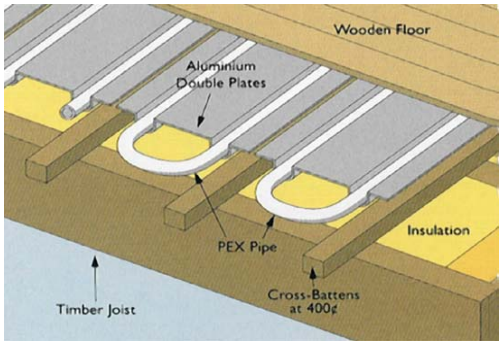
The FLOATING FLOOR system can be used as a substitute to screed over a slab for a wooden floor.
Pex pipe lays neatly in aluminium heat diffusion plates which are placed into specially routed 50mm polyurethane insulation.
The plates then spread the heat resulting in an even surface temperature and the thick insulation prevents the downward passage of heat.

TIMBER SUSPENDED JOISTED FLOOR



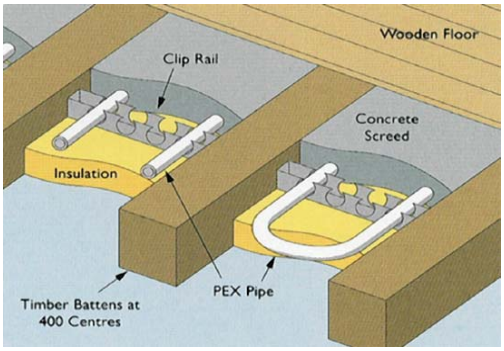
The PLATE SYSTEM can be used to spread heat evenly under wooden suspended floors or as the PUG system where a mechanical fixing is required.
Wooden floors fixed to joists require a minimum of 25mm polyurethane insulation to be fixed between the joists or battens to prevent the downward passage of heat. If your joists are not at even 300 or 400mm centres we advise cross battening at these spacings.
Aluminium plates are then fixed to the joists/battens with 17mm pex pipe neatly fastened within to aid in the conductivity of heat.

TIMBER SUSPENDED CROSS BATTEN FLOOR



The PLATE SYSTEM is also used to spread heat evenly under wooden floor where cross battens are used.
This system requires a minimum of 25mm polyurethane insulation to be fixed between the joists to prevent the downward passage of heat.
Cross battens are fixed at 400mm centres and aluminium plates are then fixed to these battens with 17mm Pex pipe neatly fastened within.
The aluminium conducts the heat and spreads it throughout the surrounding area. Battening requires no notching or drilling of joists.

PUG FLOOR SYSTEM



The PUG system can be used with either solid or suspended concrete floors, where a mechanical fixing is required for a timber floor finish.
The system requires a minimum base of 25mm polyurethane insulation.
Plastic Clip-Rail is fastened to this base and 17mm Pex pipe fixed into it.
A concrete screed covers these materials and should sit level with the batten, a minimum of 30mm. As the screed is directly beneath the covering board, conductivity is increased.
Insulation must comply to building regulation