



## System BETWEEN JOIST

Underfloor heating, for refurbishment where raising the existing floor height is not possible

**INTRODUCTION** Installing underfloor heating in older buildings is a difficult and specialised process. Preserving the original architectural qualities whilst delivering enough heat in what is normally an under insulated building is critical to a successful installation. The JUPITER IDEAL warm water based system provides a modern, sophisticated and reliable solution that is quick and clean to install.

### HOW IT WORKS?

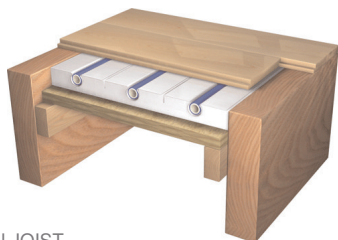
In order to install the JUPITER IDEAL system between existing joists the original floor boards have to be removed. The system can only be installed from above. Boards can be reused or replaced. Following a thorough inspection of the joists and noggins, wooden battens are fixed to both sides of each joist in order to take an 18mm ply board. The 18mm ply should be set 30mm from the top of the joists. This board serves two purposes; to hold the JUPITER 30 mm high heating panel in place and to act as a supporting floor for the installer. The ply and battens can be set lower on ground floor installations to accommodate further insulation. The JUPITER high density polystyrene panels are trimmed on site to fit and then placed within the joists so that the aluminium spreader plates are flush with the top of the joists. If, due to general inaccuracies, the JUPITER panels are not flush with the top of the joists, they can be

placed on a thin foam underlay in order to raise them. The 16 mm JUPITER PE/RT multi pipe is then clipped into the omega shaped channels within the aluminium and crossed from void to void by means of a small notch at the end of each joist. Care should be taken with notching and if not appropriate or possible the pipe should be taken above the joist and returned within the wall. By design, the JUPITER IDEAL system can provide up to 3 pipes per void between typical 400 mm joist centres and 2 pipes per void where the centre measurements are less. Having the JUPITER panels flush with the top of the joists ensures that the floor finish is in direct contact with the aluminium diffusion plates. This ensures an even heat, a responsive system and most importantly maximum output. Unlike typical dry mix solutions between joists, the heat transfers quickly through the aluminium diffusion plates.

### FLOOR FINISHES

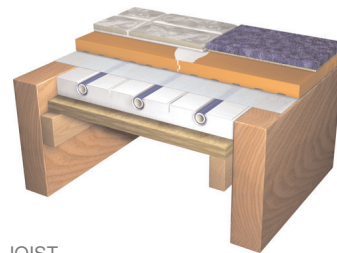
Installing engineered or solid timber floors up to 22 mm back on the joists once the heating system is in place doesn't generally present problems. The usual rules of installing timber on underfloor heating should be applied. Meeting the demands of carpets and fine ceramic tiles or stone can be hazardous and the JUPITER Screed Replacement Tile (S.R.T.) is an innovative product that provides a peace of mind solution. The S.R.T. system is a solid natural clay, tongue and groove tile that can be laid directly over the joists and heating elements. Being only 20 mm thick they are a direct replacement to the usual solution, chipboard. They have however, unlike chipboard, very little thermal resistance and can therefore provide over 100 W/m<sup>2</sup> on average. This means that even with

carpet laid on top the overall heat output is far higher than any other system and makes it particularly suitable for older buildings. The tiles are simply glued together, not down, and set over 24 hours. Once set they become a solid slab which acts as the new sub floor. Their 20 mm thickness means that the heat up times are again, highly responsive. They are so strong that even the most delicate tiles, marble or natural stone products can be laid without the need to install an expensive decoupling membrane. JUPITER is the leading manufacturer of dry installed underfloor heating products in Germany and in the UK we have successfully provided and installed Between Joist systems in a number of prestigious and historic buildings.



**BJ1**

System BETWEEN JOIST with solid wood floor or engineered board as finished floor



**BJ2**

System BETWEEN JOIST with our Screed Replacement Tile and wood, tile or carpet as finished floor





## System BETWEEN JOIST

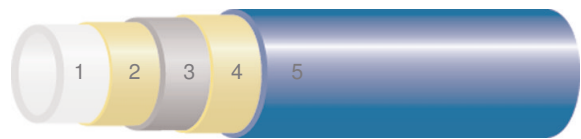
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### JUPITER PIPE

At the core of the JUPITER heating system is our multi layer metal / polyethylene PE-RT pipe. The advantages of both metal and polyethylene are combined to give an air tight, long lasting and corrosion free pipe. JUPITER multi layer pipes are tested and approved to the highest standards.

- 1 Polyethylene pipe
- 2 Adhesive layer
- 3 Aluminium pipe
- 4 Adhesive layer
- 5 Polyethylene pipe



### INSTALLATION

In most cases JUPITER IDEAL underfloor heating systems are installed either by our own engineers or through our network of installers. It can be installed by self builders and we have a comprehensive DVD which demonstrates all aspects of installing our different systems. We also supply heating circuit layout drawings as well as comprehensive support and advice.

### THE BENEFITS

- Three pipes per void
- No construction height gain
- Heats up in minutes, rather than hours
- Energy efficient
- No screed required
- Maintenance free
- Lightweight system - no dry screed mix
- Proven construction
- Design, supply and installation

### CERTIFICATION

The JUPITER IDEAL UFH system and associated products has been tested to, and met the following standards: BS EN 1264, DIN 1055, DIN 4108, DIN 18202, EnEV. All JUPITER products are guaranteed for 10 years. Our PE-RT multi pipe has been tested to have a life span of 50 years.

### RESEARCH AND DEVELOPMENT

Our R&D department are continually exploring new ideas and materials to ensure that the JUPITER product range remains technically, the market leader.

### ACCESSORIES AND TOOLS

We provide a comprehensive range of accessories for all heating and domestic water supply installations. We also hire our range of tools which are required for a correct installation of our system. Please see additional Tool Hire leaflet. JUPITER supplies all additional equipment such as manifolds, thermostats and blending valves to connect the UFH system to any type of boiler.

WORKING IN CONJUNCTION WITH:

**fermacell**

**Kingspan**

**CREATON**  
NATURAL CLAY SETS THE TONE



Jupiter Heating Systems Ltd, 110 New Haw Road, Addlestone, Surrey KT15 2DF  
Phone 01932 858 838 Fax 01932 845 522 [www.jupiter-system.com](http://www.jupiter-system.com) [info@jupiter-system.com](mailto:info@jupiter-system.com)

“...no need to screed”™