



SUPERIOR UNDERFLOOR HEATING & COOLING SYSTEMS

Concorde House, Concorde Way, Segensworth North, Fareham, Hampshire PO15 5RL

Tel: 01489 581787 Fax: 01489 576444

Email: sales@warmafloor.co.uk Web: www.warmafloor.co.uk

UNDERFLOOR HEATING & COOLING

Warmafloor pioneered the use of underfloor heating/cooling systems in the UK from the early inception. Initially Warmafloor installations were carried out on projects with large open floor areas such as halls and atriums etc which operated as a single zone.

With the introduction of better and more environmentally aware building practices, especially better insulation, which has resulted in buildings requiring less heat or cool and more sophisticated control systems, Warmafloor underfloor heating and cooling is becoming much more widely used in buildings such as schools to residential properties.

For best results the floor structure should be a solid floor either screed on concrete or structural concrete, this type of structure provides an energy store, whereas lightweight structures such as timber floors have little store capacity and a high resistance to heating/cooling transfer resulting in a much poor cooling output.

Warmafloor Heating/Cooling System -The installation
Pipework & Manifolds

The underfloor pipework and manifolds are designed and installed generally in the same way as underfloor heating only systems but with closer pipe spacings to achieve maximum output during cooling. In some cases special circuit layouts are used.

Water temperatures

Heating 25 ° C to 45 ° C

Cooling 14 ° C to 20 ° C

Note: a chilled water temperature below a dew point of 13 ° C should not be used otherwise condensation in the structure can occur.

SYSTEM OPERATION

The Warmafloor underfloor heating/cooling system can be supplied with hot water and cooled water from any source providing it is at the correct temperature. The system can be boilers and chillers or a heat pump or any other suitable sources.

HOW IT WORKS

The system works in either the heating mode or the cooling mode. In the heating mode hot water is circulated and in the cooling mode chilled water. Which mode it is in is generally controlled by the use of heating/cooling space thermostats and a controller.

Simple Warmafloor underfloor heating/cooling systems work in this way with fixed heating and cooling water temperatures.

Typical water temperatures.

Heating 45 ° C flow 40 ° C return

Cooling 14 ° C flow 19 ° C return