

**WARMA
FLOOR**

UNDERFLOOR HEATING AND COOLING SYSTEMS



Warmafloor (GB) Ltd is Britain's leading underfloor heating specialist with a track record spanning over 20 years. The company's systems provide energy efficient solutions to many of the country's high profile buildings from major industrial and leisure installations to government offices and museums.

The company's systems benefit from extensive development work undertaken in association with leading independent consultants and research facilities. They use proven components, conforming to all relevant British Standards, to deliver reliable, cost-effective solutions that reflect today's demand for sustainable construction.



UNDERFLOOR HEATING CAN BE USED IN VIRTUALLY ALL TYPES OF BUILDING:

EDUCATION | HEALTHCARE | LEISURE | RETAIL CENTRES | COMMERCIAL | PUBLIC BUILDINGS





THE GREAT COURT,
BRITISH MUSEUM, LONDON

EMBLEY PARK JUNIOR SCHOOL,
ROMSEY

BALTIC, THE CENTRE FOR CONTEMPORARY ART,
GATESHEAD

KING'S HIGH SCHOOL,
BOURNEMOUTH

GYMNASIUM, WHITELEY SCHOOL,
FAREHAM



RESIDENTIAL DEVELOPMENTS

MINISTRY OF DEFENCE, BASE ORDNANCE DEPOT,
DONNINGTON, TELFORD



BASILICA OFFICE COMPLEX, BASILDON

PFIZER UK HEADQUARTERS,
SANDWICH, KENT

ENVIRONMENTAL BUILDING AT BRE,
GARSTON, HERTFORDSHIRE

MINISTRY OF DEFENCE,
ABBEEY WOOD, BRISTOL





SPECIFICATION, INSTALLATION AND PERFORMANCE BENEFITS

UNDERFLOOR HEATING OFFERS MAJOR BENEFITS OVER TRADITIONAL SYSTEMS.

- Interior spaces remain free of floor and wall mounted equipment, therefore providing maximum versatility in design and layout.
- Minimal energy input is required, assisting in meeting the requirements of The Building Regulations Part L.
- Heating grids can be installed efficiently and quickly, irrespective of building size and with accurate zonal control.
- The reduced energy requirement normally brings running cost savings of 20 per cent or more.
- Minimal maintenance is needed.

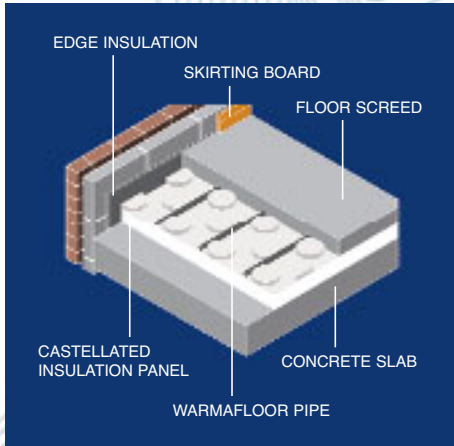
SUSTAINABILITY

Warmafloor underfloor systems predominantly use polystyrene insulation manufactured using steam injection, avoiding the requirement for environmentally harmful gases. Our high performance polybutylene pipe uses less energy in production than many alternatives and can readily be recycled at the end of a building's useful life. These factors combine with the energy savings associated with underfloor heating to provide a truly sustainable solution.

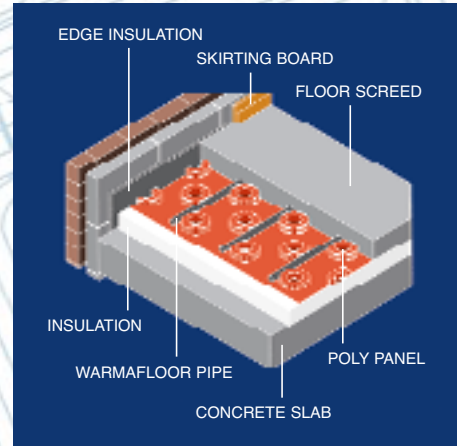
HEALTH & SAFETY

Walls remain free from obstruction. There are no hot radiators to pose a potential hazard (particularly to young children, the elderly, or infirm). Underfloor heated floors typically operate at surface temperatures of 23°C - 27°C (higher if required in special applications).

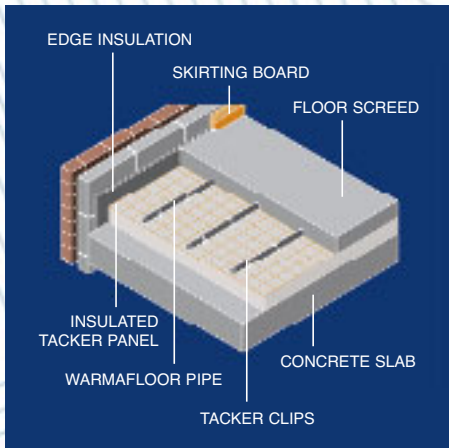
The system contributes to minimisation of dust mites and spores carried by air movement and so can assist in creating an 'allergy free' environment.



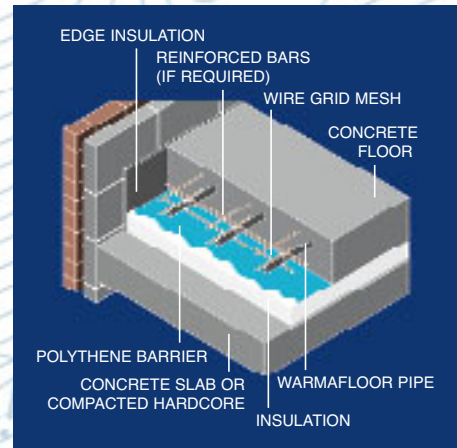
CASTELLATED INSULATION PANEL SYSTEM



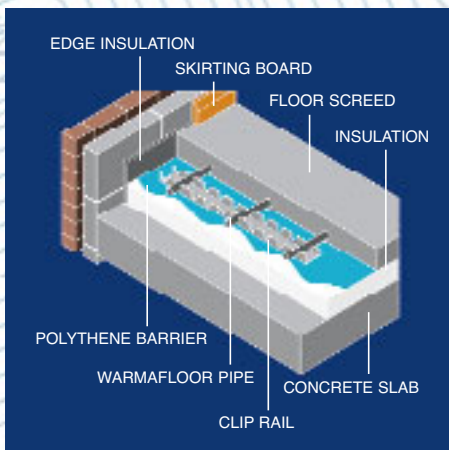
POLY PANEL SYSTEM



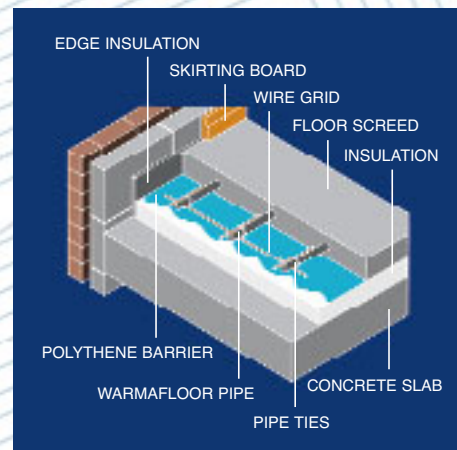
TACKER SYSTEM



STRUCTURAL FLOOR SYSTEM

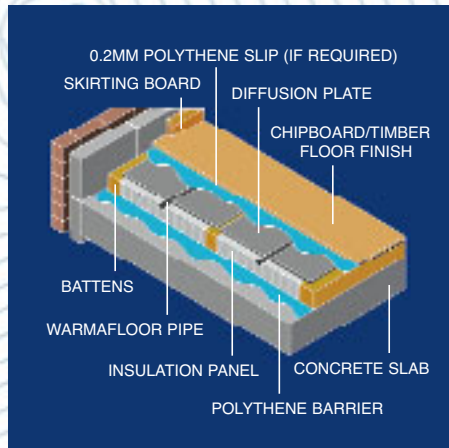


CLIP RAIL SYSTEM

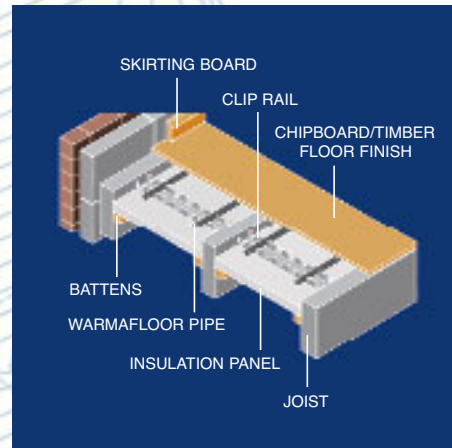


WIRE GRID SYSTEM

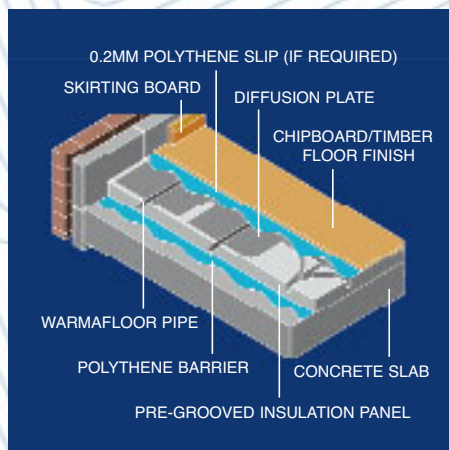
SYSTEM DIAGRAMS



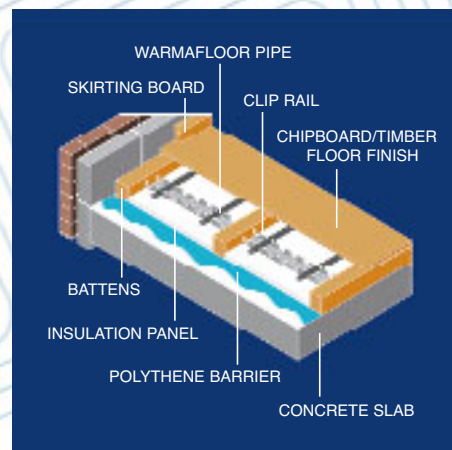
BATTEN FLOOR SYSTEM WITH DIFFUSION PLATE



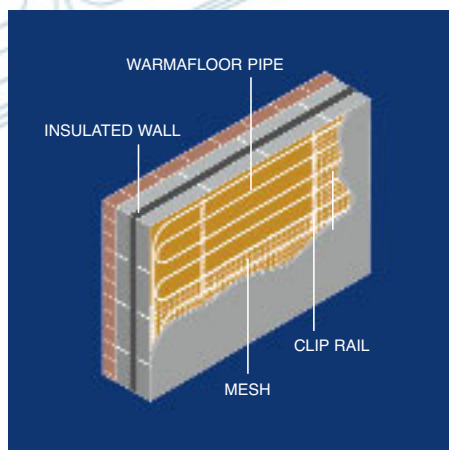
JOISTED CLIP RAIL SYSTEM



FLOATING FLOOR SYSTEM



BATTEN/SPRUNG CLIP RAIL SYSTEM



WALL HEATING

FLOOR TYPES

Warmafloor has developed systems that can be configured for a wide range of floor types including solid concrete and screeded floors, floating floors, timber joists and sprung floors. Heating systems can also be embedded within pre-cast concrete slabs.

For further details on any of these systems contact Warmafloor.

COOLING SYSTEMS

Underfloor systems that are used to provide heating during the winter months can also be used to cool buildings in the summer. By circulating cool, rather than warm, water the floor can be 'chilled' so as to offset high ambient temperatures and solar gains.

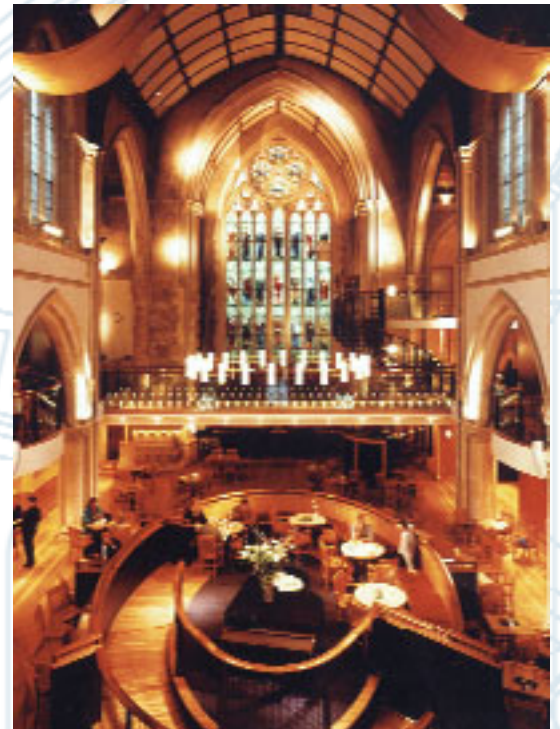
As the cooling system uses an entry temperature of approximately 13°C, river, lake or bore hole water can be used, as well as high efficiency chillers.

STRUCTURAL CONDITIONING

Technology, with its roots in underfloor, has been developed by Warmafloor to provide a range of structural conditioning solutions. These provide a cost-effective and discreet method of building heating and cooling elements into walls and ceilings.

Pipe systems can be clipped to wall structures in situ before being permanently built into the render/plaster. Alternatively, they can be incorporated in pre-cast/constructed elements of the building envelope, or load bearing structure.

Warmafloor has a specialist division that produces pre-cast structural sections that can heat and cool the occupied space, using the floors, ceilings or wall elements.





SWIMMING POOL, UNIVERSITY
OF EAST ANGLIA, NORWICH

A1

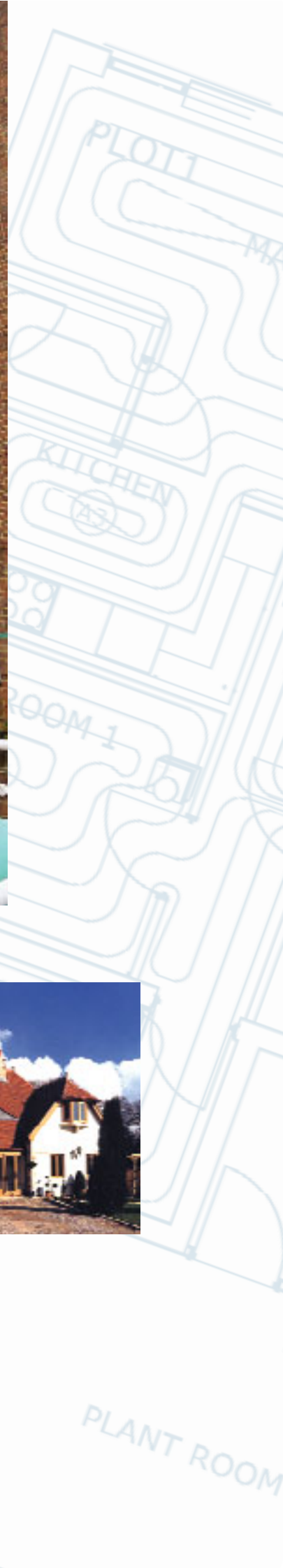
PITCHER & PIANO
PUBLIC HOUSE, NOTTINGHAM

AUDI CAR SHOWROOM,
PLYMOUTH

KITCHEN

BEDROOMS

B3



BRADBURY OAK HOUSE, SUPPORTED HOUSING,
DULWICH, LONDON



PRIVATE HOUSE, RINGWOOD, HAMPSHIRE

AREA 1

PLANT ROOM

UNDERFLOOR PIPE

High performance polybutylene underfloor pipe is manufactured for Warmafloor by Hepworth Plumbing Products. The pipe has an integral oxygen barrier fully protected between the inner and outer pipe walls. Hepworth polybutylene pipe is more flexible than other types of pipe material, offers excellent creep resistance and is produced in coils up to 200 metres long giving great versatility in coil layout, without the need for any underfloor joints.

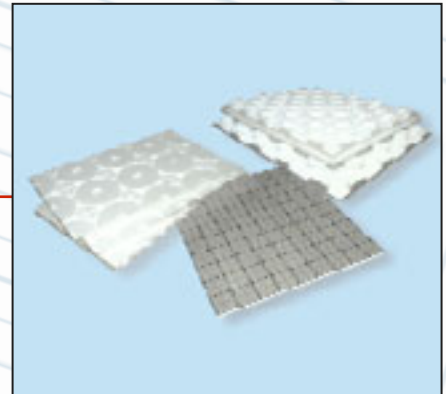
The pipe is guaranteed for 50 years against defects in materials or manufacturing.

It conforms to BBA Agrément Certificate 92/2823 and is manufactured within a Quality Management System which satisfies: BS EN ISO 9001: 2000.

It is suitable for British Gas and Scottish Gas approval for Three Star Central Heating Care.



SYSTEM COMPONENTS



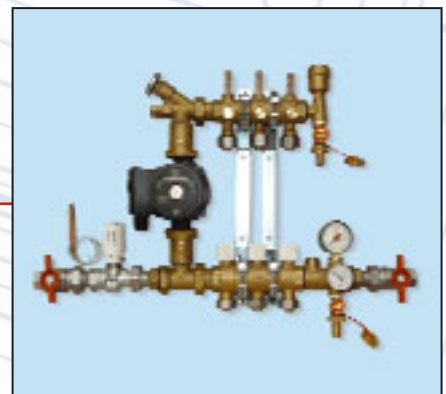
INSULATION

Warmafloor uses environmentally friendly insulation, generally polystyrene, incorporating a range of pipework securing systems, to suit various applications.

MANIFOLD SETS

Manifold sets are manufactured in brass and are supplied with wall brackets and rubber inserts, automatic air vents and drain cocks, temperature gauge, pressure/temperature gauge, optional flow indicators, isolating valves, individual circuit lockshield valves and individual circuit manual isolating valves.

Manifolds are also available with fitted pumps and water temperature controls.





Our extensive experience in a complete cross-section of sectors enables us to offer unrivalled experience in all types of underfloor heating and cooling and structural conditioning applications.

EDUCATION:

Schools, Colleges, Universities, Nurseries, Sports Halls, Arts Centres, Student Accommodation...

HEALTHCARE:

Hospitals, Hospices, Nursing Homes, Care Centres, Surgeries, Health Centres, Animal Rescue Centres...

LEISURE:

Football Stadia, Leisure Centres, Golf Clubs, Ice Rinks, Swimming Pools, Wildlife Centres...

COMMERCIAL:

Government Buildings, Exhibition Centres, Supermarkets, Car Showrooms, Hotels, Restaurants, Garden Centres, Factories/Warehouses, Aircraft Hangars, Ferry Terminals, Fire Stations...

PUBLIC BUILDINGS:

Arts Galleries, Museums, Libraries, Heritage Properties, Theatres, Churches...

RESIDENTIAL:

Multi-occupancy Developments, Prestige Homes, Sheltered Accommodation, Conversions, Extensions and Conservatories...

TECHNICAL SUPPORT

Warmafloor's technical team is on hand to provide comprehensive support services, ranging from responses to individual enquiries, to bespoke solutions - including the preparation of comprehensive CAD generated designs and design details, in hard copy and digital format.

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