Flawless underfloor heating and cooling at your fingertips

warmafloor

we know a touch more

Contents

A warm welcome to Warmafloor

For 30 years, Warmafloor has been at the forefront of the UK's surface heating and cooling industry. Three decades over which we have invested in research and development, introduced valuable innovation, shared our knowledge and partnered hundreds of successful projects.

That we are Britain's leading underfloor heating specialist is no accident. Our quest is, and always has been, to be the best.

So we focus completely on underfloor heating and cooling systems and provide a unique wall-to-wall solution to deliver excellence. We are the only company to design, supply, install, commission and provide ongoing support to every system, because it gives us total control and our customers total assurance.

The things that matter to customers – efficiency, quality, consistency, sustainability, flexibility and personal service – matter equally to us. And that is why Warmafloor systems are installed in landmark buildings in almost every sector across the UK.

As you'll see, when it comes to underfloor, we know a touch more.

Call: 01489 581787
Email: sales@warmafloor.co.uk
Web: warmafloor.co.uk

Greater expertise at every turn

From the earliest days of the UK's radiant floor heating industry, we have spent time learning, researching, investing and partnering the British building industry to see large and complex projects through to completion for commercial, industrial, public and residential buildings.

360° competency

Such is the depth of our experience and capability that we feel confident in claiming to know just a touch more about underfloor.

No other company brings such well qualified expertise to every aspect of surface heating and cooling, from consultation and system design to supply, installation and on through to certification and bespoke aftercare. It's a complete solution that reduces risk and gives our project partners one point of contact.

We believe that when well designed, accurately specified and professionally installed, underfloor heating provides the most efficient and comfortable all-round warmth of any heating system.

So, whatever the scale of your project, we will do all we can to ensure every facet of our solution is flawless, from the highest performance polybutylene pipes (which carry an industry leading 100-year guarantee) right down to easy access information and useful FAQs on our website.

A unique fingerprint

Pipes, plates, panels, meshes, manifolds and more feature in any underfloor installation, but at the heart of every Warmafloor system is the key component of our people. We invest in developing and training our team so that every customer can rely on quality of delivery, right from your first enquiry through to servicing and support.

We extend this to installation too, employing our own installers as well as approved contractors to ensure that projects stay on spec, on schedule, on budget and perform without fault.

In addition, our systems are available on a supply-only basis, or a design and supply basis for customers qualified to carry out the installation work themselves and we work with our partners to provide accredited CPD courses.

It's a total solution that delivers total assurance.

Read on to learn more about key aspects of the Warmafloor system and the powerful benefits that underfloor heating can deliver to almost any building.


After Care
System design
Installation
Consultation
Supply
Commissioning

A leading choice of energy sources, floor types and system designs

With a degree of confidence, we believe that Warmafloor has more experience and capability in large and complex projects than any other company in the UK. We are able to work effectively across multiple mechanical and electrical contracts, and have a wealth of case studies that illustrate both the scope of our expertise and the scale of the projects we have partnered.

From conception to completion, if you have the floor we have the system. Solid floor screeded systems, structural concrete floors, batten/sprung floors, floating, suspended and raised access floors are all in our standard portfolio.

In fact, our designers are pushing boundaries in underfloor heating technology, adapting basic principles and standard components to provide unique solutions, not only in non-standard floor applications, but also in ceilings and walls.

Keeping cool

Cooling is increasingly a consideration for building owners and designers. With official reports predicting that the average national temperature could rise by as much as 8°C in the next century, the ability to offset high ambient temperatures and solar gains in summer months by circulating cool water is a major benefit of our underfloor systems.

We also have the ability to design systems that can use river water or ground water as the cooling source, further reducing the energy costs and carbon footprint of a building.

Fit for the future

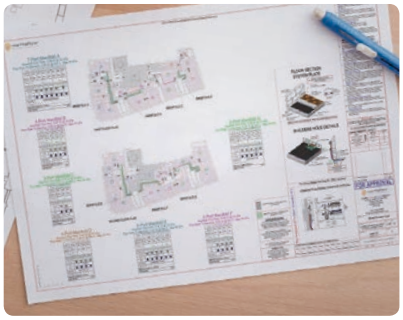
Echoing the choice of available systems for different floor types, we are also able to advise on an extensive range of potential energy sources. Building Regulations, growing environmental concerns and government initiatives, such as the Carbon Plan to cut greenhouse gas emissions by 80%, are increasing the demand for renewable solutions.

Warmafloor systems can connect to renewable technologies such as solar panels, wind turbines, ground source heat pumps and biomass boilers, often allied to a traditional condensing gas boiler to 'top-up' energy as required. The result is a system that is less expensive to operate, with a high coefficient performance factor, a reduced carbon footprint and creating a more comfortable, year-round working or living environment.

Drawing on an investment in innovation

Whether in undertaking research and development, supporting education and training, offering system advances, non-standard solutions, introducing new materials or expanding the choice of energy sources, Warmafloor has a pedigree in innovation and advancing the cause of surface heating.

Two key developments clearly demonstrate how that investment pays dividends for our customers.



Setting the industry standard

At Warmafloor, we pioneered the use of full-colour Auto CAD for designing and preparing underfloor heating drawings. Every project is accompanied by four levels of drawings: from an initial zone design concept for consideration and costings; to a full design for approval; followed by construction drawings for client and our installer; and finally, a set of record drawings at completion, which accurately record the system as installed.

Our experience shows that such attention to detail at each and every stage is vital to smooth running on site, underpinning our ability to bring even the most complex projects in on schedule.

Controllability

Intelligent control lies at the heart of minimising energy consumption, increasing efficiency, delivering optimum comfort, achieving cost reductions in operation and enhancing the lifetime value of every system.

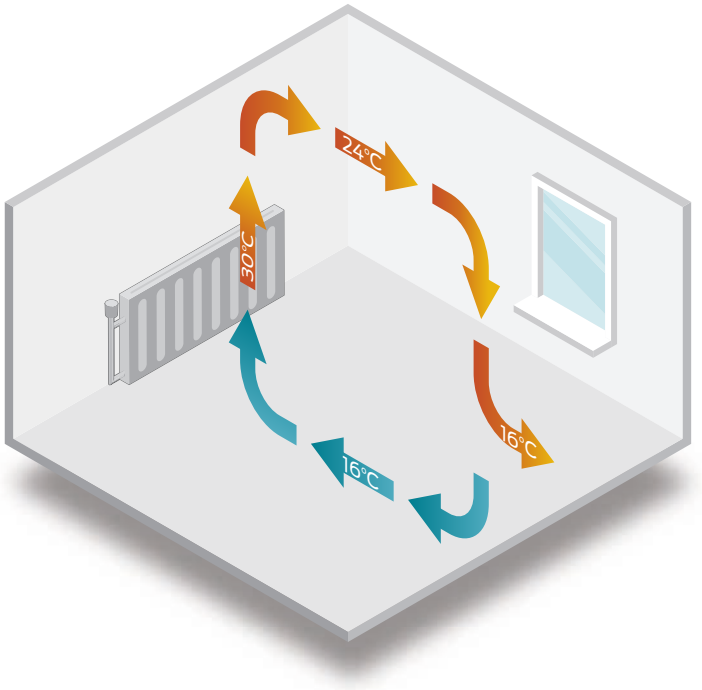
Our advances in pioneering an integrated control system – one that manages multiple energy sources from a central location – puts the ability to tune every aspect of the installed system at a user's fingertips.

Turn to page 11 for further description and explanation of our Totally Integrated Control System (TICS).

Cut heating bills by approx 8%

By lowering the temperature of a heating system by just one degree.

Delivering much more than warmth

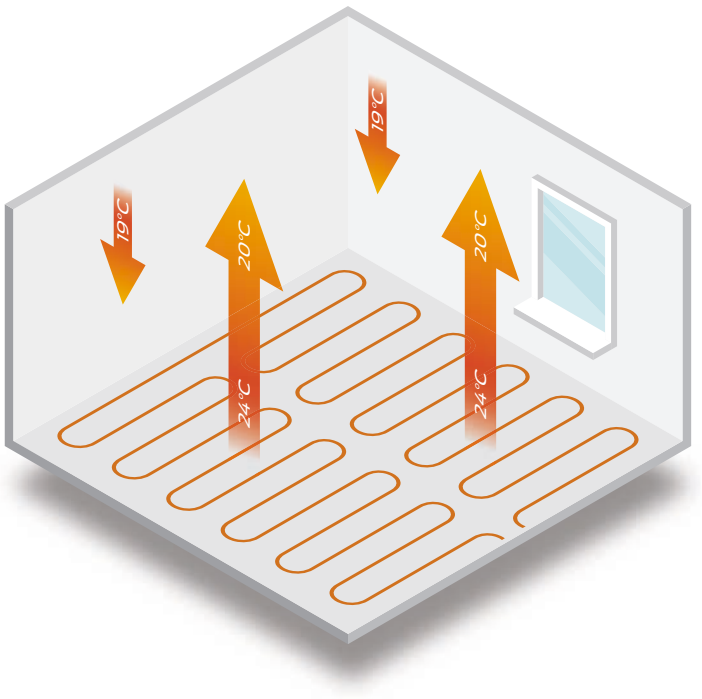


Systems with radiators

Radiators distribute heat by convection currents, which can result in draughts and hot spots. The floor will be the coldest zone of the room, as hot air rises, and the space above your head will be the warmest part of the room.

Radiators transfer heat into a room largely by convection from a hot metal surface. Because the surface of the radiator is small, in comparison to the volume of the room, it needs a high heat input and doesn't spread the heat evenly.

Convection currents also circulate allergens, dust particles, fumes and germs, which are then distributed around the building, contributing to an unhealthy atmosphere.



Underfloor heating

Underfloor heating systems are simple to install, low maintenance and cost-effective to run. The room is heated mostly by radiation, the most natural and comfortable form of heating, creating a uniform environment with no hot or cold draughts.

Rooms with high ceilings such as churches, sports halls or industrial units gain even greater benefits. With radiator systems, some of the heat is immediately wasted as it rises to the ceiling. With an underfloor heating system, the heat is concentrated at floor level where it is most needed. In rooms with large areas, underfloor heating is the only way to heat the centre of the floor area effectively.

Surface heating systems are 5-20% more efficient than traditional heating systems

Research conducted by the UHMA

THE UNDERFLOOR HEATING MANUFACTURERS' ASSOCIATION Associate Member

Floor coverings

Floor coverings such as carpet, underlay and timber reduce the floor heat output. Please check with us to confirm suitability. Some floor coverings, especially timber and vinyl floors, have a recommended maximum floor surface or sub floor temperature that they can operate at; if a higher temperature is used it can damage the floor covering. Manufacturer's data sheets should be checked to confirm the covering's suitability.

Energy efficiency

- Underfloor heating is the most energy efficient way of transferring heat into a room and can consistently deliver substantial energy savings compared to radiator systems.
- Because underfloor heating systems benefit from the use of lower water temperatures throughout the system (rather than hot water in radiator systems), condensing boilers can generally run at greater efficiency, saving even more energy costs.
- By providing a constant heat, underfloor heating allows occupants to feel more comfortable at a lower temperature.

Interior design

- Out of sight, underfloor heating gives a total flexibility in layout, with no radiators to limit interior designs and furniture arrangement.
- Underfloor heating is compatible with most types of floor covering. The interior designer has freedom to specify most materials whether it be tiles, wood, laminates or carpets.
- Even though it can't be seen, underfloor heating adds perceived value to the property.

Sustainability

- Warmafloor has been part of the project team for many buildings that have won architectural and energy savings awards.
- By providing greater control, energy efficiency, and by using recyclable materials, Warmafloor can contribute to BREEAM credits, a lower carbon footprint, enhanced sustainability and lifetime value.

Health & Safety

- Underfloor heating systems eliminate radiators (which can potentially be a health and safety risk because of their high surface temperatures and sharp edges).
- Moisture levels in floor coverings are reduced, which reduces microbiological growth and the risk of slipping. In carpet, it virtually eliminates dust mites.
- As there is no convection driven airflow, and the circulation of bacteria and pollen is reduced, the indoor air quality is cleaner and healthier.

Sustainability runs through every inch of Warmafloor

Building Regulation, government directives, the concerns of contractors, and the conscience of individuals have combined to make energy efficiency and sustainability essential elements of any modern-day building brief.

In response, we at Warmafloor are genuinely committed to making positive contributions to the sustainable future of every build project we are involved with. Through the careful selection of materials, smart design and thoughtful operation on site, we ensure that we minimise our own environmental footprint, while delivering some of the most sustainable heating and cooling systems available.

- With features including geothermal heat source, solar hot water, reflective glass, rainwater harvesting and, of course, high efficiency underfloor heating and cooling, the Warmafloor head office facility requires only 20% of the operating energy consumed by a conventional building.
- Warmafloor is one of only a few companies to use a five-layer, polybutylene barrier pipe to circulate water. The pipe is fully recyclable, uses no toxic chemicals and is designed to last for the life of the building.
- Insulation products, such as our expanded polystyrene, have an ozone depleting potential of zero.
- All boxes used in our packaging are made from recycled cardboard, and we endeavour to use biodegradable packaging throughout.
- Our manifolds are 100% recyclable and are assembled in the UK.
- Our recycling policy enables both expanded polystyrene and polypropylene to be converted back into a solid state.
- The ABS plastic used in our plate clipping system is vacuum formed from recycled material and, at the end of its useful life, can be recycled and reused as mouldable material.
- Products and materials used on installations are selected so they can be recycled and we are committed to keeping waste on every project to a minimum.

Intelligent control. The key to efficiency

Having the right heating and cooling technology in place takes building owners only so far in achieving true energy efficiency and the optimum environment for occupants. Control is key to ensuring the right amount of heating at the correct times is delivered for perfect comfort, minimised energy consumption and significant cost savings.

Warmafloor has grasped the opportunity that the integration of systems (particularly in complex, multi-use spaces) presents to take control beyond sensors and room thermostats, to intuitive and ever-vigilant Total Integrated Control Systems (TICS).

Ticking all the boxes

The TICS modular solution is intelligent and easy to use. A user friendly touchscreen control allows building managers to operate a property's cooling, heating and hot water systems from one central location.

As well as manual control, TICS has the intelligence to ensure the most inexpensive heating and cooling sources are used as a priority, through energy-saver scheduling. Furthermore, it has the ability to control up to 32 zones, monitor and display the amount of energy consumed in each, and allows individual time and temperature control of each room in compliance with 2013 Building Regulations Part L.

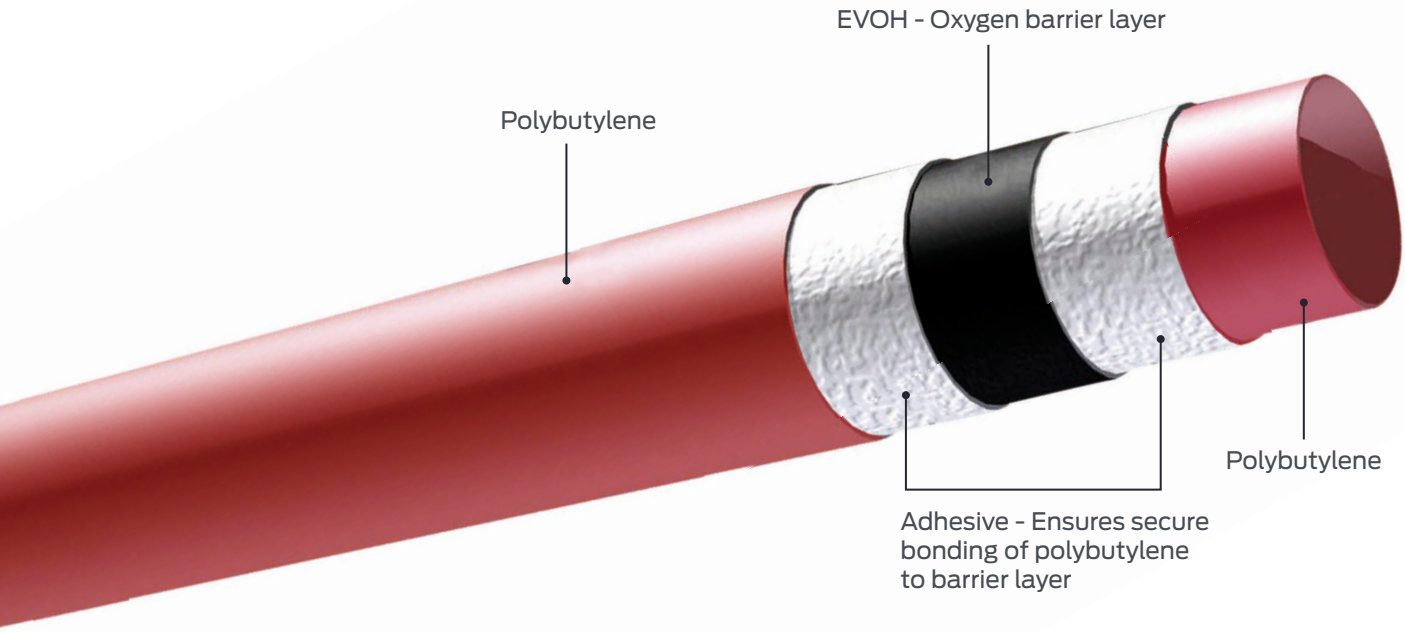
The Proportional-Integrated Device logic (PID) designed into the system allows TICS to identify all of a building's energy sources – including boilers, solar panels, heat pumps and air conditioning units – and make an instant assessment as to which is best suited to meet the energy requirement at any given time.

The innovative ability of the system meets the requirements of the Standard Assessment Procedure (SAP), ensures heat or cooling is delivered at the most cost effective price where it is needed most, and contributes to producing an effective 'steady state' building all year round.

The accuracy of TICS is also unique, operating to within 0.5°C as opposed to the industry standard 4°C. This feature alone can generate significant savings, while making every space more energy efficient and comfortable. TICS even features a built-in programme to help eliminate costly maintenance call-outs by 'exercising' the pump and actuators during extended periods of inactivity.

Find more detailed information about our thermostats, sensors and controls at warmafloor.co.uk/downloads.

Superior Pipe. Superior performance



As part of our quest to provide only the best, we insist on polybutylene pipe in our systems because of its unrivalled balance of properties in installation, in use and in sustainability.

Manufactured to all known European quality and performance standards*, Warmafloor polybutylene is designed to last for the life of the building and carries an industry leading 100-year guarantee.

*(Including BS EN 9001 and BS EN ISO 2100 BSI Kitemarked)

Installing the best

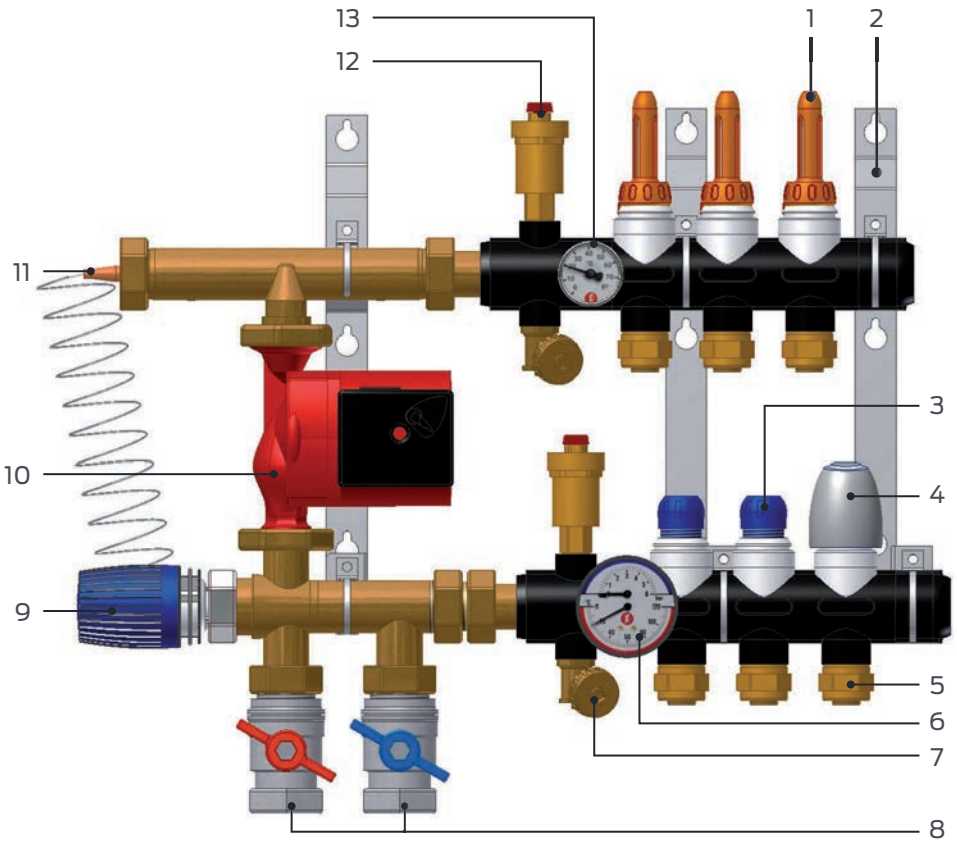
More flexible than other pipe material, it offers excellent creep resistance, is non-corrosive, resists frost damage and is unaffected by hard, soft or aggressive water conditions.

An integral oxygen barrier is fully protected within an advanced, five-layer construction, ensuring that oxygen cannot permeate and removes any potential risk of corrosion.

Available in coils of up to 200m, polybutylene speeds installation, enables versatility in, and the optimisation of, coil layout and ensures, in line with industry best practice, that there are no underfloor joints. And its performance credentials are matched by its environmental qualities. Polybutylene has markedly less embodied energy than many competing materials and, if required, can be recycled and converted back into granular form for reuse.

Proven in applications worldwide, and in prestigious projects from Canary Wharf to the Welsh Assembly, we believe polybutylene is simply superior.

Warmafloor Manifolds. Connecting to quality



1. Flow Rate Adjuster/Indicator
2. Wall Mounting Bracket
3. Manual Head
4. Thermoelectric Actuator Head
5. Pipe Connectors 16-20mm
6. Combined Pressure &Temperature Gauge
7. Fill/Drain Valve
8. Isolating Valve
9. Thermostatic Control Head
10. Circulating Pump
11. Flow Water Temperature Sensor
12. Automatic Air Vent
13. Flow Temperature Gauge

Our range of standard, blending and composite manifolds completes an unbroken circuit of quality in every Warmafloor system. Each manifold is assembled at our UK head office, utilising the most appropriate materials for the specific functions they are intended to perform.

That means industry standard brassware for compression connections, and a barrel body manufactured from Glass Fibre Reinforced Black Polyamide, which is not adversely affected by any accidental contact with linseed oil sealing compounds and is further unaffected by soft, hard or aggressive water or inhibitors.

High grade stainless steel ball valves are used to isolate/shut-off the manifold, with industry standard gauges for reliable and accurate readings, and brand leading Grundfos pumps for superior energy/system performance. Even the supporting brackets are precision engineered to secure the manifold and offset the barrels to allow the flow pipework to be routed behind and adjacent to the return connection.

All configurations of the manifold have been rigorously tested by the British Board of Agrément (BBA CERT.10-4738) and are 100% recyclable.

Some of Britain's finest buildings carry the Warmafloor fingerprint

Over 30 years, Warmafloor has created an enviable track record of helping large and complex construction and regeneration projects reach their energy efficiency and sustainability goals.

With an installation completed somewhere almost weekly, that invaluable experience extends from prestigious projects like the Olympic Delivery Authority and British Museum, to what was at the time the world's largest underfloor system for the MOD, over 2,000 schools, and almost all other applications and sectors.

Whether the project is large or small, new build or refurbishment, underfloor heating from Warmafloor offers a touch more.

- Education
- Leisure & Retail
- Healthcare
- Residential
- Churches, Cathedrals & Museums
- Government
- Inner city regeneration

Scottish Parliament, Edinburgh, Scotland

Next steps with Warmafloor

Our promise is to know a little bit more about underfloor and, as a leading authority in surface heating and cooling, we are always available to share our expertise and experience, and provide consultation, advice and designs for commercial new build or refurbishment projects.

We're flexible too, so we can handle everything from conception to completion, or provide a design only service or design and supply.

Simply pick up the phone, email us or, if you'd like to know a little more before getting in touch, explore **warmafloor.co.uk**

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You've reached the end of this section

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