



PLUMBING & HEATING
SOLUTIONS

OVERVIEW

Complete solutions for a sustainable home.

Energy Management:

Intelligent, energy-saving systems from Uponor

- Professional plumbing solutions
- Underfloor heating and cooling
- Energy systems

Complete solutions for a sustainable home:

Uponor provide the fundamental systems for ideal home comfort, combined with the most efficient use of energy. Our aim is to enrich people's way of life and offer comprehensive plumbing, heating and energy solutions.

Uponor is ready to help you select, install and enjoy the benefits of our systems;

Renewable Energy Systems

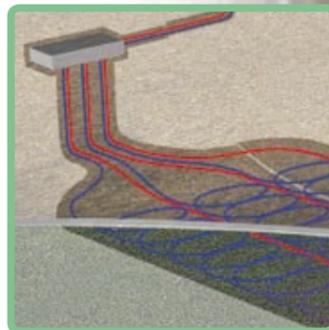
Pre Insulated Pipes



Step 2.

Transferring energy; from A to B without losing °C

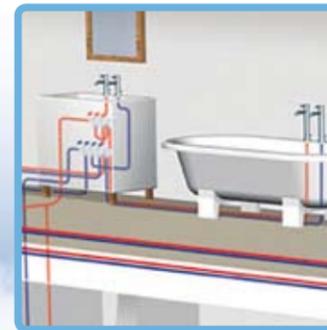
Collector Pipes



Step 1.

Extracting energy from the ground

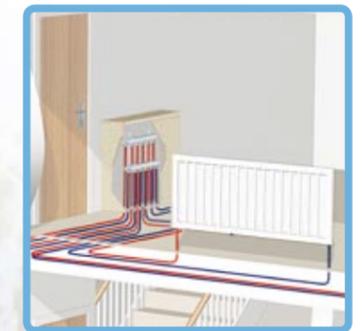
Hot & Cold Tapwater



Step 3.

A safe secure water distribution system

Radiator Connection



Step 4.

The benefits of manifold plumbing for radiator connection

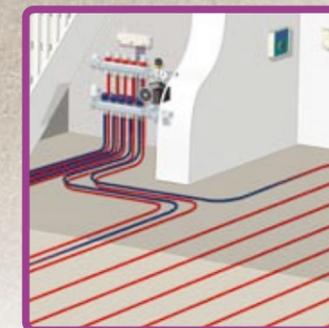
Dynamic Energy Control



Step 5.

Unique, innovative heating controls, up to 8% energy savings

Underfloor Heating & Cooling

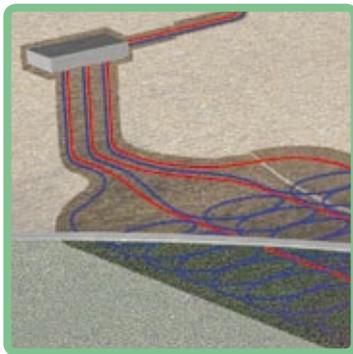


Step 6.

Energy efficient heating - a sustainable home...

Underfloor Heating & Cooling Systems

Tap into an endless source of renewable energy with Uponor Collector Pipes;



*Step 1.
Extracting energy
from the ground*

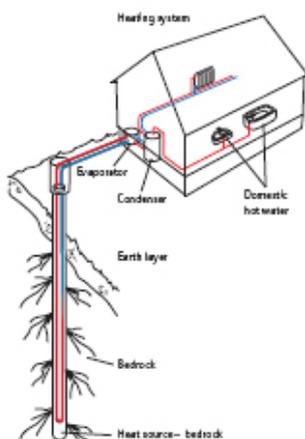
Extract energy from the ground - the energy source on your doorstep

Forget wind, wave, and solar power – the easiest source of renewable, non-polluting energy lies beneath the ground outside your house. Right now, ground-source energy accounts for 10% of the UK's domestic and commercial needs – and it's growing fast. A well-designed system should generate four times as much energy as it consumes. So for every kiloWatt you put in, you get 4 out.

Stable temperatures all year round

On the surface; sun, wind, rain, and snow, temperatures change by the hour. Beneath our feet, it's a different story. A dozen metres below ground, temperatures remain stable all year round. At these depths, the ground is an endlessly renewable source of low-grade (i.e. low temperature) heat.

The most popular form of underground heat is a bedrock heat well – a 100-metre borehole equipped with collector pipes containing a mixture of water and ethanol. If the liquid going down the borehole is colder than the bedrock, it will absorb some of the underground energy before returning to the surface at a higher temperature than it went in.

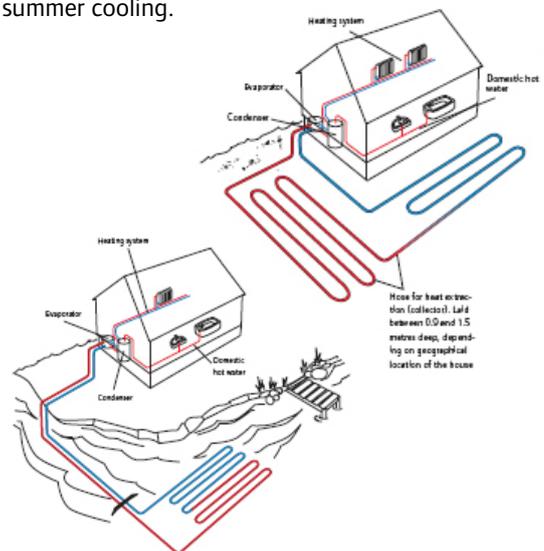


On the surface, a heat pump refines that energy to a temperature suitable for domestic heating, typically 40 to 50°C.

Ground-surface heating works in a similar way. In this case the collector pipes are laid horizontally a few metres below the surface. A third version of the system involves collector pipes laid in a nearby lake or river.

Useful for cooling too

During the summer, the reverse applies. Ambient liquid pumped into the collector pipes comes back cooler than it went down. It becomes a free source of domestic cooling. Used in this way, ground-source energy systems become a two-season source of winter heating and summer cooling.



By laying the pipes at the correct interval (1.2 - 1.6 m) ground surface heat can also be utilised in a water heat system. This is recommended in the case of longer distances to the water course.

Uponor Pre-insulated pipes

...from A to B without losing °C!

Step 2.

Transferring energy; from A to B without losing °C

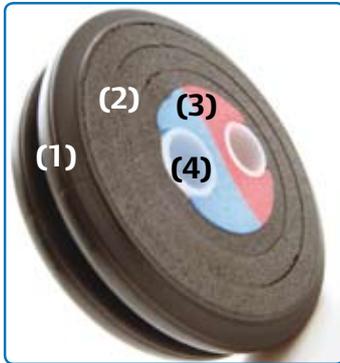


Move water to where it's needed without losing degrees of energy

To be useful, energy has to be in the right place. The easier it is to move hot (or cold) water around, the more you can do with it. So we've developed a range of easy-to-install, pre-insulated pipes that supply water to your home with minimal heat loss.

Easy to handle and install

Pre-insulated pipe comes in endless lengths on the roll. To save time on site, pipe can also be pre-cut to order at convenient specified lengths. You can bend pipe round corners and snake past the majority of obstacles. That makes for easy to installation.



Our unique colour coded insulation in red and blue, immediately identifies supply or return of the water, which has eliminated numerous installation headaches.

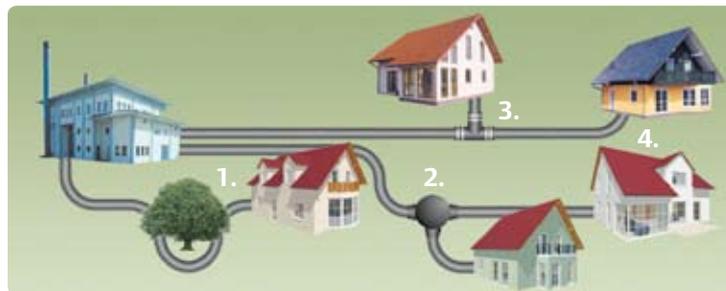
Because it's so light and flexible, you can lay pre-insulated pipe just about anywhere you want. If you're laying underground, dig a trench, lay the pipe, then fill with sand or gravel and finish with soil.

Energy is precious, save it

The key feature of our pre-insulated pipes is energy efficiency. This makes them ideal for heating and cooling systems. Wherever you want to transport water without losing energy, you pump it through one of our flexible lightweight pipes.

Roll off the length you need, lay it, and make simple connections at either end. There's no need for specialist tools, the inner carrier pipe has a simple mechanical fitting system.

- (1) Ribbed jacket pipe made of impact proof polyethylene. Very flexible with high load bearing capacity.
- (2) Excellent low weight PEX foam heat insulation.
- (3) The two coloured 'dog bone' prevents mix ups in flow and return connections.
- (4) Corrosion proof, oxygen impermeable carrier pipe made of PEX material.



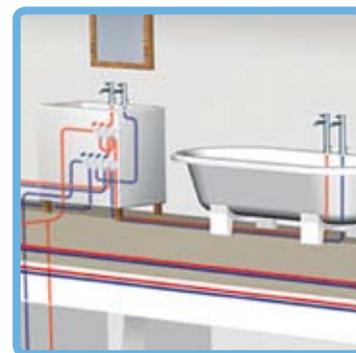
Plumbing: Branch & Manifold Systems : PEX & MLC

Uponor partner with Plumbing Professionals across the world to develop plumbing solutions which are easy to install, safe, reliable and of course, cost effective. Of all the Uponor systems designed and installed worldwide, more than half are plumbing solutions.

Our research and development focuses on innovative concepts. We are continuously working with the latest materials and production techniques to ensure you get the latest technology, ensuring installation convenience and long term performance. So you can walk away from an installation with absolute confidence it will not let you down.

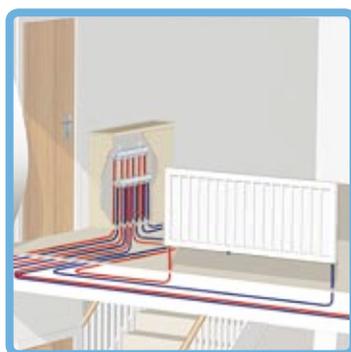
A basis for your professional installation

Permanently watertight, together with a long service life, are two of the most important requirements that are demanded today from a reliable and high quality installation. Uponor, as a leading manufacturer of plastic pipes for house construction and municipal technology fulfils these requirements without reservation with its Uponor systems. With our systems we offer you the security that is so important for your installation.



Step 3.

A safe secure water distribution system



Step 4.

The benefits of manifold plumbing for radiator connection

Manifold Plumbing

Manifold plumbing is becoming increasingly popular in the UK for both hot and cold water services, and as a distribution point to serve a heating system. Heating installations can also benefit from individual appliance isolation when required, and sophisticated controls integrated into the system, giving individual room control.

Benefits

Benefits of manifold plumbing used in conjunction with electrically operated controls include:

- Higher efficiency due to advanced controls
- Increased thermal comfort
- One central point for isolating each circuit
- Independent control over each zone
- Less fittings required and none under the floor

Uponor are one of the few manufacturers to offer a selection of pipe materials and jointing techniques for all applications, offering you choice and flexibility, all with the same Uponor Guarantee of quality only a world class manufacturer can offer.

A watertight case for Uponor PEX plumbing

Our PEX Plumbing System offers a complete solution for hot water and cold water services.

Clean, and hot-works free, plastic eliminates health and safety risks.

Uponor QE has a unique advantage over typical plastic systems because when the jointing technique is complete integrity increases over time. We believe this to be the most secure PEX jointing system on the market.

A real alternative to copper

Uponor MLCP Systems combine the qualities of plastic and metal, offering the best of both. No corrosion or incrustation, with high form stability, yet no hot-works. MLCP's great bending flexibility and innovative colour-coded fitting system not only

speeds up installation, allowing quick identification of the correct press jaws for each fitting, but also creates an instant visual check for complete pressing prior to testing.

Uponor Modular Systems see success worldwide!

Uponor's MLCP Modular Fittings Range is fast becoming the system of choice on many world-class projects. This unique system uses just 26 parts to achieve more than 300 fitting combinations, up to 110mm, and features a distinctive "click and lock" mechanism which removes the need for overhead pressing.

Intelligent control for maximum comfort



Step 5.

Unique, innovative heating controls, up to 8% energy savings

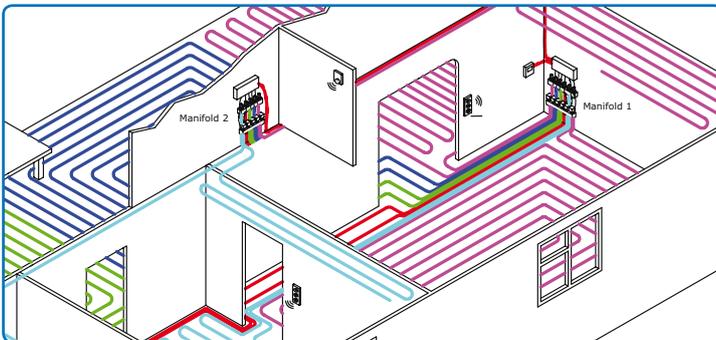
At Uponor we have found that in response to the Government's push towards reducing carbon dioxide emissions; we recognise that the overall efficiency and effectiveness of any heating system is directly related to the system controls. By investing in controls, your heating system will run more efficiently, and give you increased controllability creating a more comfortable environment.

Individual room control is the intelligent way to manage your heating system.

Faster installation with fewer call-backs

Installation is easier with wireless control. The interface is plug-and-play and activation is mostly a 'yes/no' procedure.

Choose our unique Dynamic Energy Management system and it constantly monitors conditions in each room, and adjusts heat flow to match. It lets in just enough energy to keep each room at the ideal temperature. There's no wastage and no loss of comfort. In fact it's more comfortable because room temperatures remain stable. Room Check feature can verify that everything's registered correctly. The Auto-balance feature does the rest by constantly adjusting energy flows for maximum efficiency.



Heat and cool your home comfortably and cost effectively



Step 6.

Energy efficient heating - a sustainable home...

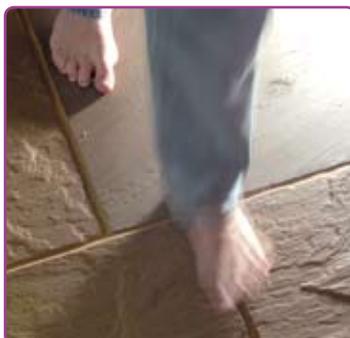
We've been making underfloor heating systems for over 40 years; we supply them for just about every type of floor.

More efficient than radiators

People love underfloor heating. It makes for an easy-going lifestyle: spacious, adaptable and energy-efficient. Independent research shows that underfloor heating is 5% - 30% more efficient than radiators**.

Benefits

- Comfort - cool head, warm feet
- Space - no obtrusive heat emitters, freedom of design
- Safe - no hot surfaces, or sharp edges
- Quiet - no creaks or groans, especially in solid floors.
- Cost-effective - runs at low temperatures



	Solid Floor	Floating Floor	Fixed Floor	Suspended Floor - Heat Emission Plates	Suspended Floor - Unifoil
PEX 12mm		✓*	✓*		
PEX 15mm	✓	✓		✓	✓
MLC 16mm	✓	✓		✓	✓
PEX 20mm	✓	✓		✓	✓

* Uses panels with integral heat emission plates

**Independent two-year study commissioned by Eu-ray (The European Association for Surface Heating and Cooling) and conducted jointly by the Danish Technical University and the University of Padua. Report published 2007. With a condensing boiler, underfloor heating is 5% more efficient than radiators. With an air-source heat pump, it's 20% more efficient, with a ground-source heat pump, 30% more efficient.

Plumbing, heating and energy management starts and ends with Uponor

Partnering with Professionals:

You don't have to use every element of our approach to sustainable living, but you'll do a better job if you do. Put it all together, and you have a total solution to home comfort, efficient energy use, and reduction of CO₂ emissions.

As much support as you need:

We're here to help you every step of the way with bespoke designs, installation drawings, and a customer support service that's as flexible and as reliable as our systems.

If you prefer to talk, you can call us on the numbers below. We're here to help.

To find your Uponor Sales Representative visit;

<http://www.uponor.co.uk/Service%20center/Contact%20us>

Specialist Training

The Uponor Training Academy offers a range of courses, starting with a comprehensive installer training course and moving through to design and control oriented workshops and the industry accepted BPEC installer course.

Bespoke workshops, tailored to suit individual needs are also available. Encompassing techniques associated with Uponor Plumbing and Underfloor Heating products Uponor can offer the whole training package.

All courses are held at the purpose built facility close to Junction 20 of the M1, in the market town of Lutterworth.

To learn how Uponor can support you with your next project;

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