

Only 0,3 inch thick!

Europatent (EP 0816764) ®

Aquaheat



Patented two-pipe return heating system

Twice the heating power
Even distribution of heat
Effective heat control
Can be connected to any water-filled heating system

Unroll ...
Level ...
Tile ...
... finished!

Connection to existing central heating system



Bayonet-fitting distribution branches



Control



Heating mat for unrolling

Fastening

Old system

Flow Return

Meandering one-pipe systems are a thing of the past. They are no longer state of the art. In these systems, a temperature gradient forms between the flow and return. Areas to be heated in the vicinity of the return are no longer supplied with heat.

Our new system

Flow Return

The two- or double-pipe return system is made by HoWaTech. It is a futuristic innovation. The same heating power is available at every point on the surface to be heated, due to the two flows in opposite directions.

Retrofitting! On or in the screed! Only 0,3 inch thick!

Direct connection for 24 square yards

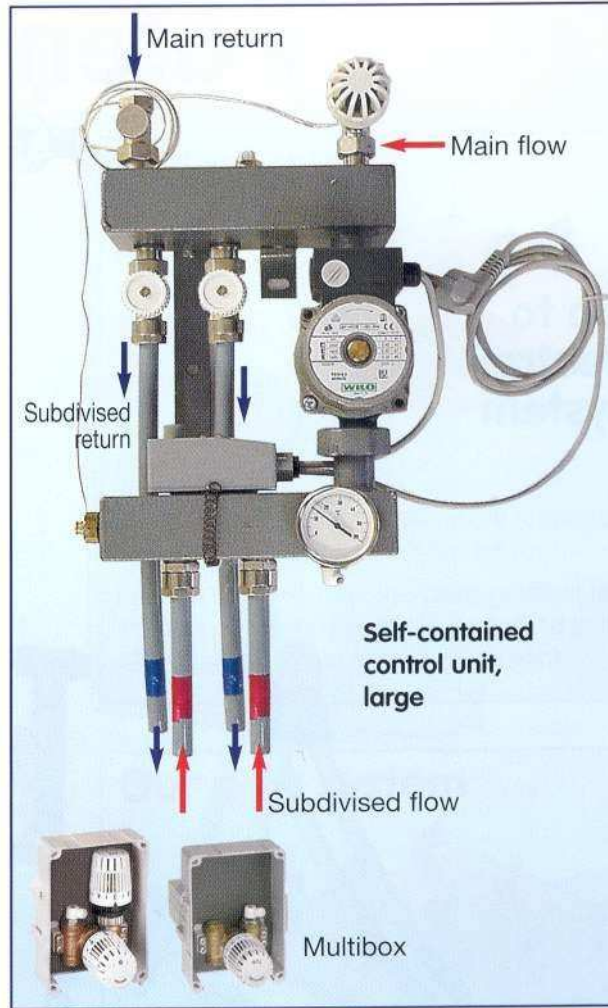
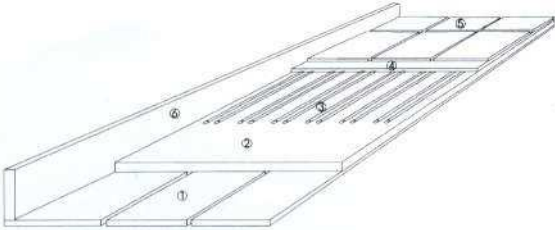
If the area to be heated exceeds 24 square yards, your existing heating pump will no longer guarantee the necessary flow of water through the floor heating system. Our complete subassembly comes into its own for floor heating systems over 24 square yards (up to 120 square yards). This self-contained unit is simply connected to the main feed and return of your existing heating system. It is best located next to your boiler or heat generator.

Self-contained unit

- It controls the **flow temperature** for the entire floor heating system
- It circulates the water through the floor heating circuit using its own pump.
- It protects the floor heating circuit and the entire structure of your floor (screed, levelling screed and tiles) from overheating and the consequential damage.

Floor structure

1. Old tiles or screed
2. Thin layer of Isover, Styrodur or cork insulation
3. Aquaheat Ø 0,3 inch in a plastic levelling screed
4. Plastic levelling screed, approximately 0,4 to 0,6 inch thick
5. New tiles, laid and grouted using plastic preparations
6. Peripheral 0,4 inch expansion gap



Boxed packaging units

- 3 square yards
- 6 square yards (2 x 3 sy)
- 9 square yards (3 x 3 sy)
- 12 square yards (4 x 3 sy)
- 18 square yards (3 x 6 sy)
- 24 square yards (4 x 6 sy)

Scope of supply

- Heating mat grid
- RTL valve
- Flow distribution branch (red)
- Return distribution branch (blue)

Your dealer



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The objective advantages of Aquaheat

- Rapid heating - only about 30 minutes, depending on the floorcovering
- No raised floor (only 0,3 inch)
- Laying on screed is child's play
- The levelling screed is reinforced by the double layer of fabric.
- Easy, uncomplicated dial operation
- Low purchase cost and minimal energy consumption
- Even distribution of heat by the two-way double flow and return system
- Low water volume - only 3.5 litres for 12 square yards.

N.B.: Conservatories and rooms with poorly-insulated floors have a higher heating requirement. A separate heat demand calculation and insulation with rigid expanded polyurethane sheets (Styrodur) is required for conservatories.

Hot water heating system for floors or walls

Aquaheat[®]
Europatent (EP 0 816 764)

**Direct connection
for up to
24 square yards**



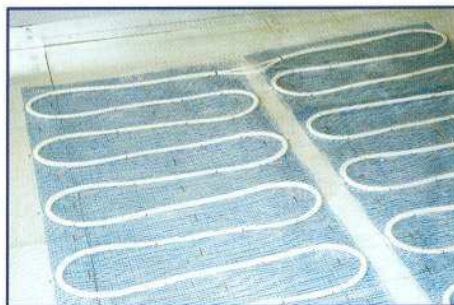
The work involved

- Lay the heating mat grid on the screed
- Fit the unions (T joints) to the feed and return on your radiator
- Screw the flow distribution branch on to the flow outlet of the union
- Screw the return temperature limiter (RTL) and the return distribution branch on to the return inlet of the union
- Engage the flow and return lines from the floor heating pipe firmly with the flow and return line distribution branches. Flows are marked in **red** and returns in **blue**
- Fill the system with water and bleed it
- Check the system for leaks
- Lay at least 0,3 inch of plastic floor levelling screed
- Lay and grout tiles using plastic preparations

Laying



1. Unroll the heating mat grid on to a clean, primed screed.



2. Cut the heating mat grid with scissors at the turning point and lay as a new strip in the opposite direction (meander laying). Do not damage the heating pipes.



3. Cement the double-sided fabric grid mat to the floor with plastic adhesive. Then level up the 0,3 inch difference in floor height with a plastic levelling screed.



4. Lay the tiles flexibly on the levelled floor with a plastic adhesive and grout them with a plastic grout.

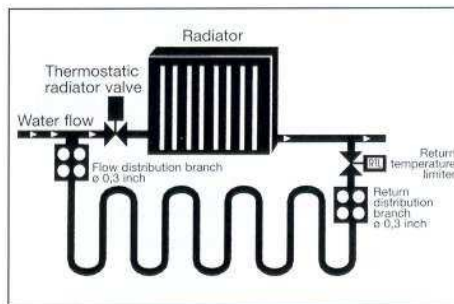
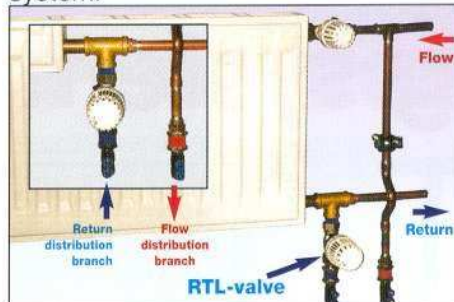


5. Heating mat grid laid on a wall. Use a heat-resistant plaster.



6. Heating mat grid laid on a large surface, with overlaps secured by broad-headed steel nails.

Our **0,3 inch-thick** floor or wall heating system can be integrated directly into your existing heating system for heating surfaces with a **maximum area of 24 square yards**. The floor temperature is easy to control with a **return temperature limiter (RTL)**. Set the desired water temperature manually on the numbered dial. If your pump is too weak at full power, we recommend a small auxiliary pump before the flow distribution branch to the floor heating system.



The floor heating pipe

- × PB piper Ø 0,3 inch or Dowlex
- × Oxygen-proof
- × Resistant to pressures up to 6 bar and temperatures up to 194 °F
- × manufactured to comply with DIN 4726
- × tested to comply with DIN pr. European standard 1264-2
- × continuous quality control during production
- × 10 year guarantee
- × Heat output 75–100 Watt per square yards, depending upon the flow temperature, e.g. 86 °F flow temperature = 85 W per square yard

The nearest flow and return are tapped with a union (T joint). A nearby radiator usually provides a site. The desired water temperature is set on the RTL valve. The ideal setting is 3. Like an injection valve, our RTL only allows as much hot water into the flow "in pulses" before the radiator valve as is required to reach the desired temperature in the floor heating pipe. The pump of the existing heating system provides the water flow. It is advantageous to reduce or choke the radiator temperature by using the radiator valve to provide a better flow of water through the floor heating system.