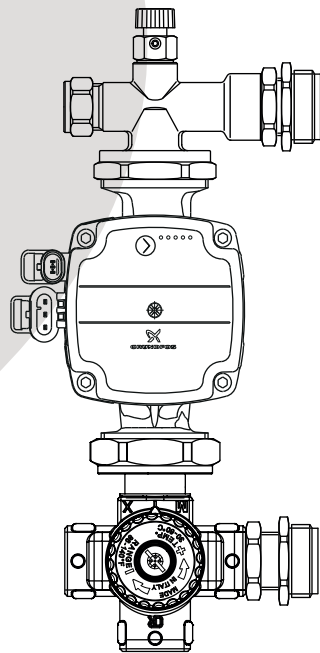


UFH standard

control unit



installation guide

altecnic

Caleffi group

UFH standard control unit

Introduction

Underfloor heating systems, depending upon the construction of the floor, work on temperatures between 30°C to 60°C which are lower than those used with radiator systems.

The system is controlled by the blending valve which mixes cooler water returning from the underfloor heating system with hot water from the boiler to supply water at the correct temperature back to the underfloor pipework.

The supply temperature of the water can be adjusted to suit the construction of the floor.

The UFH thermostatic control unit is used with flow and return manifolds to control the flow temperature of water to the various branches of the underfloor heating pipework.

Altecnic are able to offer a range of manifolds and compatible isolation valves for use with UFH control units.

UFH Control Unit

This UFH control unit is suitable for up to a 15kW heating load.

This compact, lightweight, underfloor thermostatic mixing controller complete with a 6m head pump has been designed for direct connection to heating manifolds with a 210mm centre dimension.

The unit is supplied fully assembled in left hand format with G1 male swivel flat seal unions as standard. Its versatile design and union joint connections provides a simple and quick conversion on site to right hand format if required.

Installing the UFH unit to the manifold assembly is simple and quick, requiring no additional supporting brackets, eliminating the need for time consuming drilling and fixing.

Note:

The flow and return manifolds must be securely fixed to the wall or cabinet and isolating valves should be installed between the manifolds and the UFH control unit.

If the primary circuit serving the underfloor heating is not fitted with an automatic bypass valve, it is recommended that one is installed across the flow and return pipes, upstream of the UFH unit to protect the boiler and improve system efficiency.

Pump Outlet Elbow

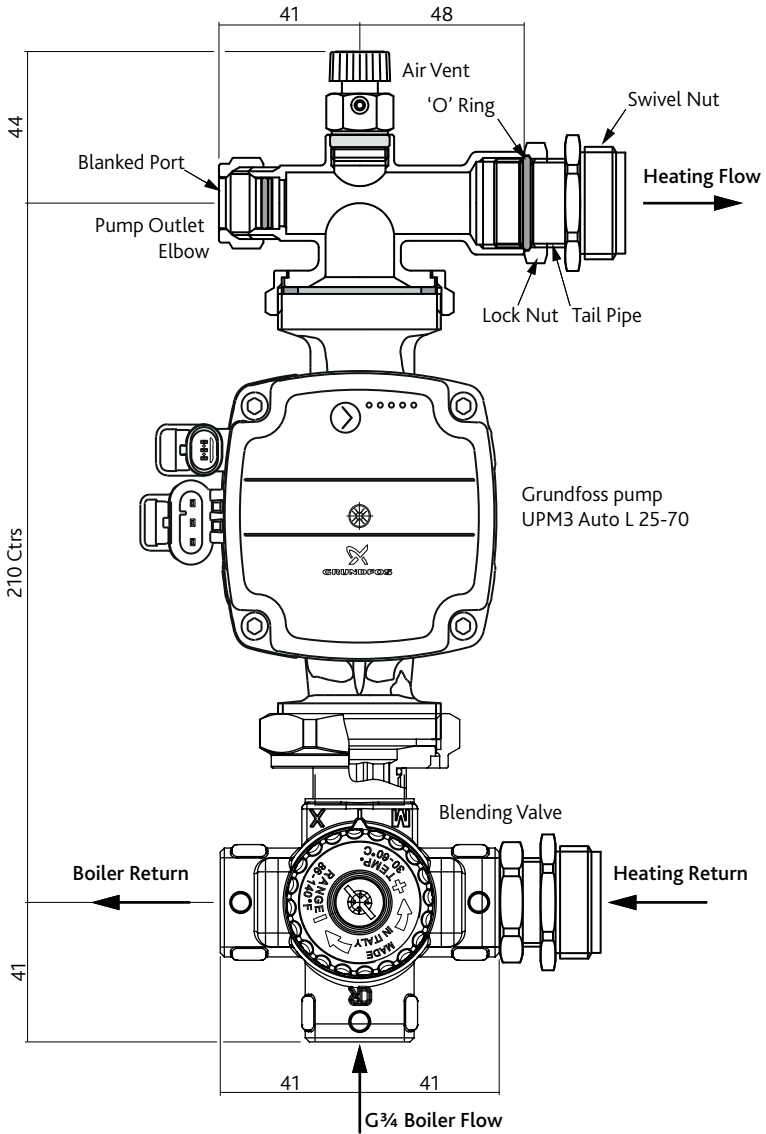
The pump outlet elbow is fitted with an air vent and a blanked off port to allow a bypass to be fitted.

Wiring

All electrical wiring should be undertaken by a qualified electrician and must conform to IEE regulations.

UFH standard control unit

Dimensions



UFH standard control unit

Installation

The UFH control unit is supplied pre-assembled for quick connection to the hot and return water supplies to the boiler and the flow and return manifolds.

Insert the fibre gaskets into the female threaded connection of the isolating ball valves supplied with the manifolds.

The swivel nut and mating face in the ball valve must be flat against which the gasket can be tightened to ensure a water tight seal.

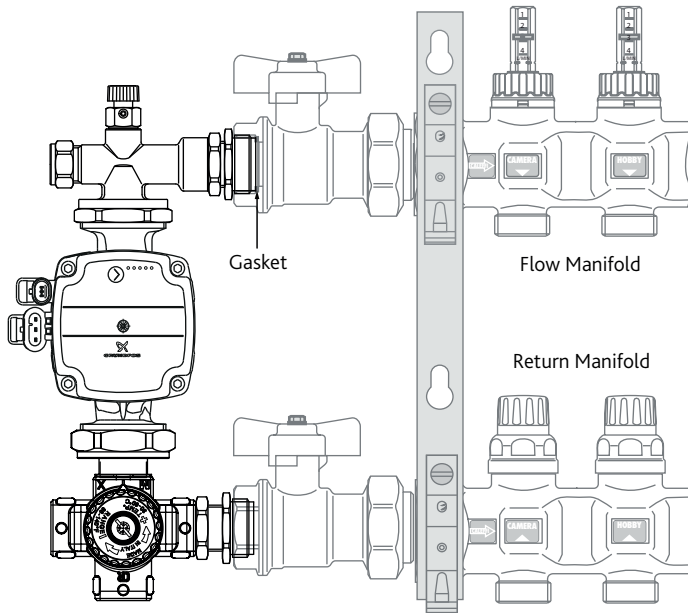
Connect the control unit to the ports, locating the bottom (return) flat faced union connection first, then swing the top (flow) union to align with the flow ball valve connection, tightening the joints hand tight.

Alternately, if using a suitably sized spanner one turn at a time, alternating between both joints until fully engaged with the gasket.

Ensure that the control unit and manifolds are aligned correctly and securely held to the wall or back of the mounting cabinet using the mounting brackets supplied with the manifolds.

Finally using a suitably sized spanner on the corresponding end of the ball valve (adjacent to the swivel nut) and using a 36mm A/F spanner tighten the swivel nut to make a water tight joint.

Repeat for the second joint.



UFH standard control unit

Commissioning

To protect and prevent damage to the blending valve and other valves and fittings in the heating circuit, it is recommended that the connecting pipe work is thoroughly flushed to remove any debris before filling and venting the system.

Close the manifold isolating valves, with the system filled and pressurised, vent the control unit via the air vent on the pump outlet elbow.

Open the manifold isolating valves and other valves and vent via the air vent again.

With the primary pipework to the boiler, UHF control unit and manifolds filled pressurise the system and check all joints for signs of leakage.

Temperature Adjustment

The thermostatic blending valve is factory set to provide water mixed at 45°C to the heating manifold.

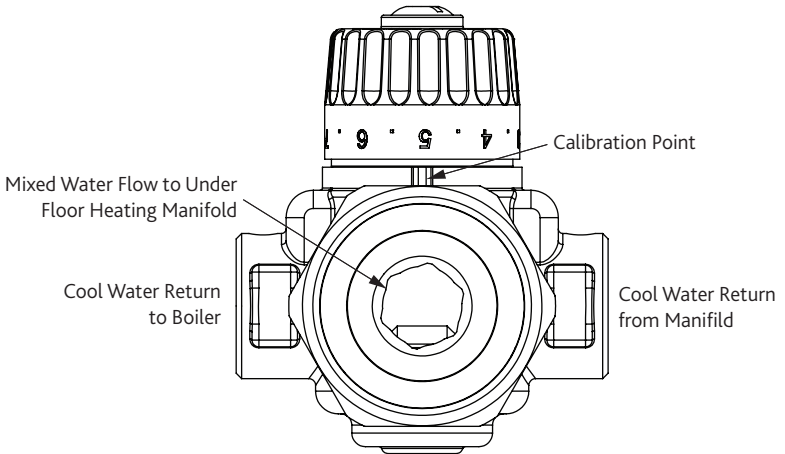
The mixed water temperature can be adjusted to suit the design flow temperature within the range 30°C to 60°C.

With the boiler firing, the heating circuit balanced, the mixed water flow temperature can be easily adjusted by rotating the control knob of the blending valves as indicated, clockwise to increase the temperature and anticlockwise to reduce it.

To measure the mixed water temperature, use a suitable thermometer, preferably digital, to measure the surface temperature on the pump outlet elbow.

Adjust the temperature as specified for the application and site conditions.

Min	30°C
1	34°C
2	38°C
3	41°C
4	43°C
5	45°C
6	47°C
7	50°C
8	54°C
Max	60°C



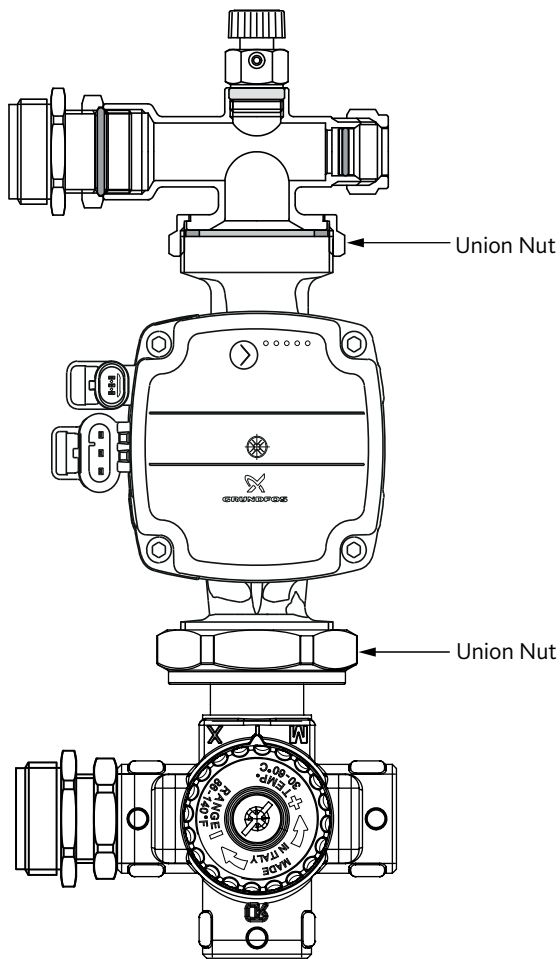
UFH standard control unit

Right Hand Installation

The UFH control unit can be easily installed in a right hand configuration.

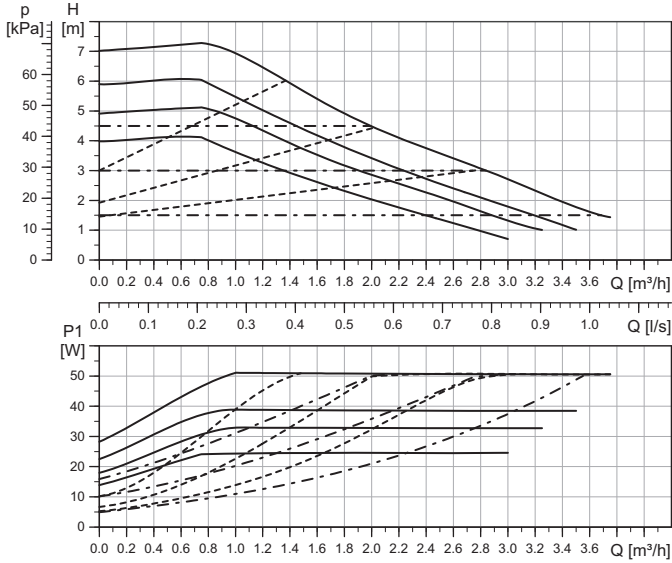
Using a 54mm A/F spanner slacken the 2 union nuts on the pump and rotate through 180° the pump outlet elbow and the blending valve as shown below.

Re-tighten the union nuts and follow the Installation procedure previously described.



UFH standard control unit

Grundfos UPM3 AUTO L 25-70 Performances Curves



High efficiency

Ready for Ecodesign

$EEl \leq 0.20$ Part 2

$P_{L,avg} \leq 25W$

Line type	Description
—	Constant curve
- - - - -	Proportional pressure
- · - · -	Constant pressure

Notes

In this procedure document we have endeavoured to make the information as accurate as possible. We cannot accept any responsibility should it be found that in any respect the information is inaccurate or incomplete or becomes so as a result of further developments or otherwise.

E & O.E

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