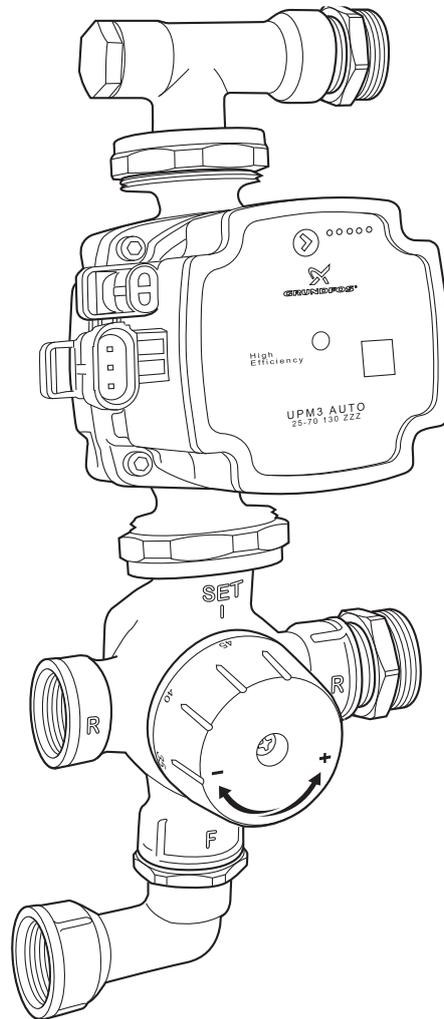


Installation and Maintenance Instructions

# SOLFEX

UNDERFLOOR HEATING

## Underfloor Heating Manifold Control Kit



The UFH Manifold Control Kit provides temperature controlled mixed water to an underfloor heating system.

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# Technical Specifications

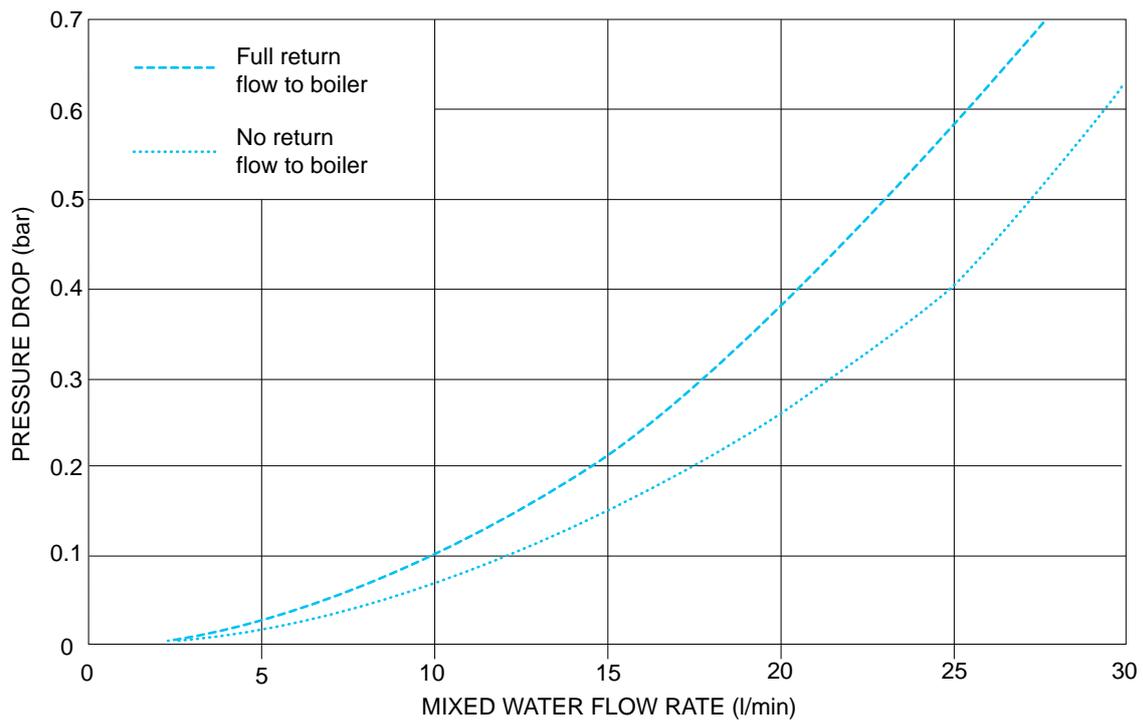
## Specifications

Hot temperature supply range: 60°C - 85°C  
Adjustable temperature range: 25°C - 60°C  
Maximum supply pressure: 10 bar  
Factory pre-set : 45°C (Control knob is in the adjustable position)  
Temperature stability: +/- 2°C  
Connections: Mixing valve inlets 3/4" FBSP  
Manifold connections 1" MBSP

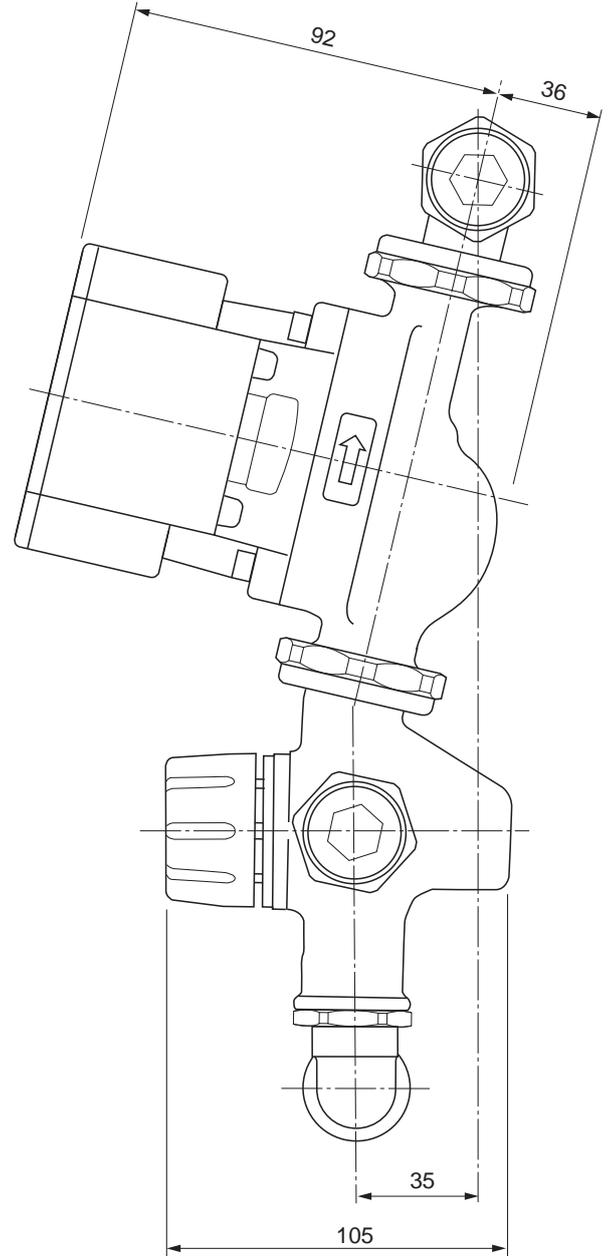
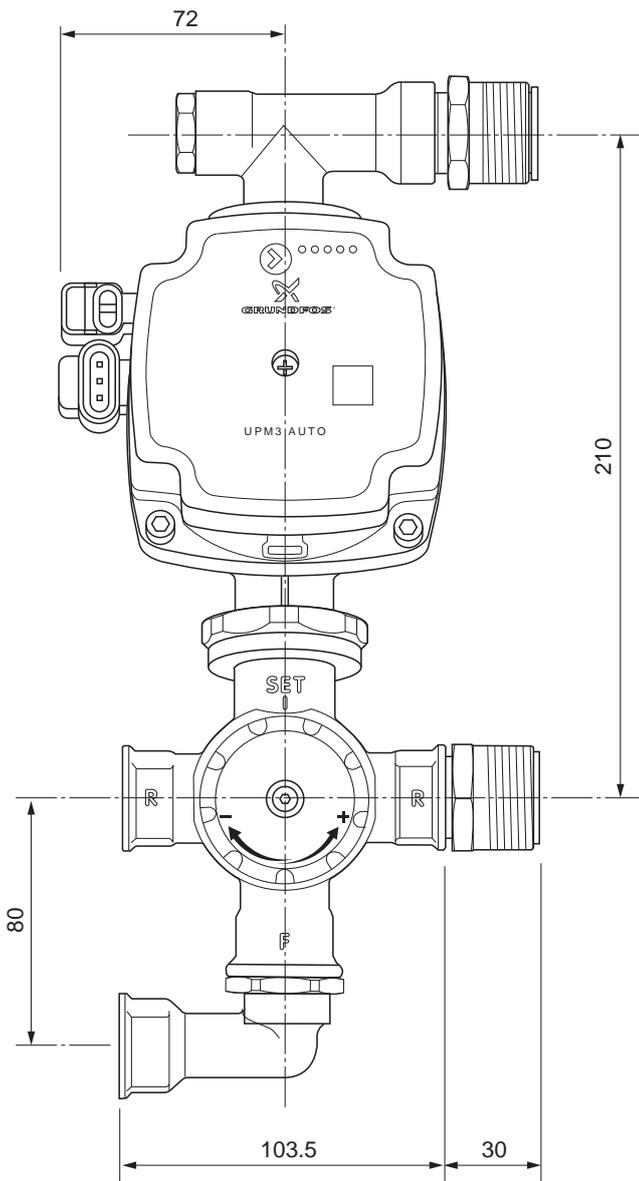
## Materials

Body Nickel Plated Brass  
Seals Fibre  
O-Rings Viton  
Spring Stainless Steel

## Pressure Drop Graph



# Dimensions



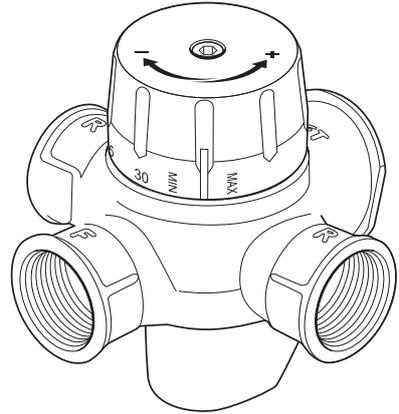
All measurements in mm unless specified otherwise

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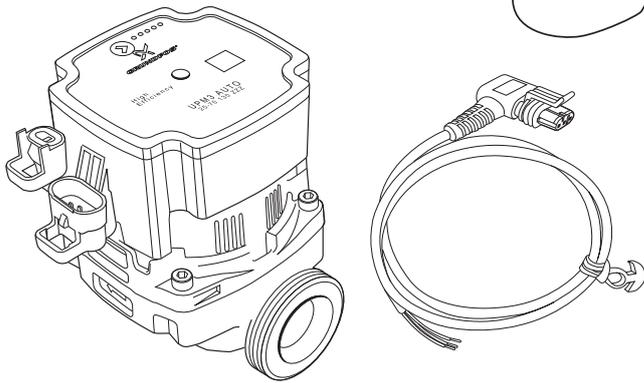
# Pack Contents

Please check contents of pack before beginning installation.

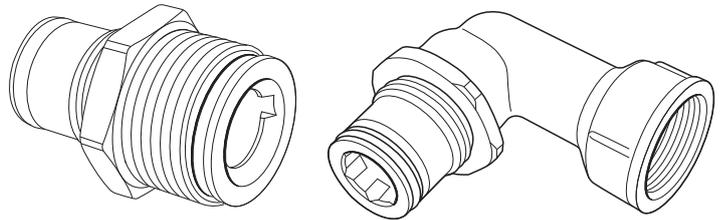
UFH blending Valve



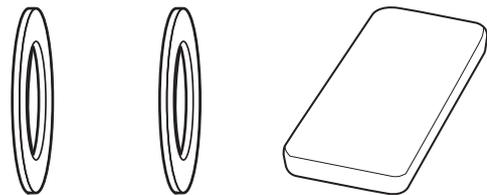
Grundfos UPM3 Pump including cable



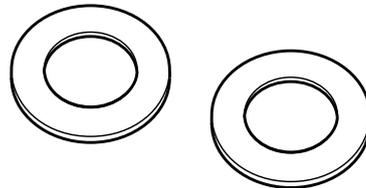
Straight & Angled connectors for UFH blending valve



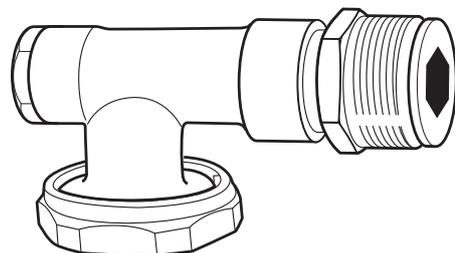
1" fibre washers (Qty 2) with straight connector tool



Pump washers (Qty 2)



Connection elbow



## Introduction

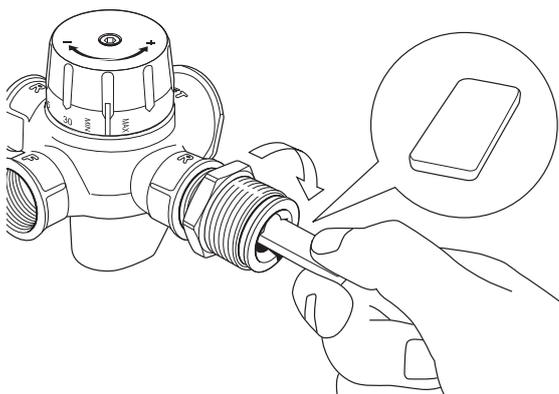
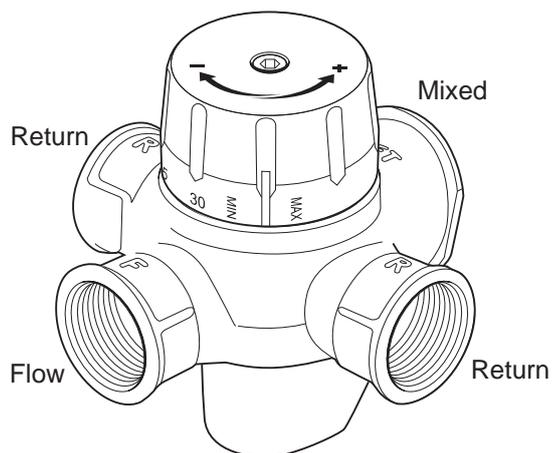
Designed to work with manifolds of all types, on 210mm centres. The UFH Manifold Control Kit is a bolt on unit providing a quick and simple system to install.

## Installation

Firstly firmly fix the distribution manifolds to the wall leaving enough room beside the manifold to fit the control pack (see dimensions, Page 2).

Before beginning the installation of the UFH Manifold Control Kit, identify all of the components in the pack.

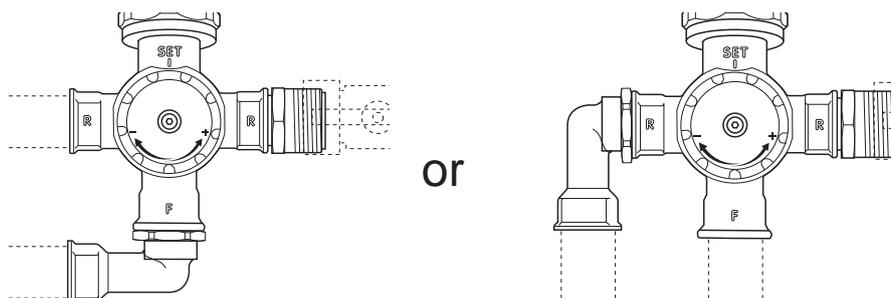
The UFH blending valve comes with two return ports. This means you can connect the main heating system return to either side of the valve, thus allowing the control pack to sit on either side of the manifold.

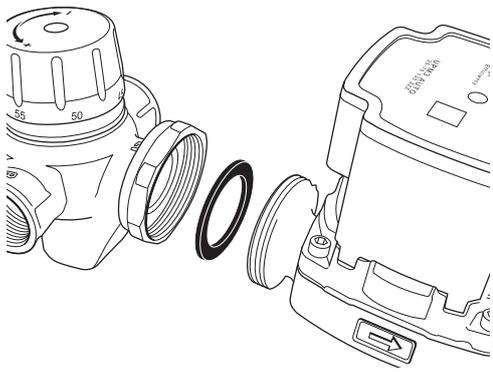


Once the orientation has been determined the straight connector which connects the UFH blending valve to the manifold needs to be screwed into the return port. This is tightened using the straight connector tool supplied.

The angled connector can then be connected to either the flow or the return port on the UFH blending valve depending on the orientation of the supply pipework (as shown below).

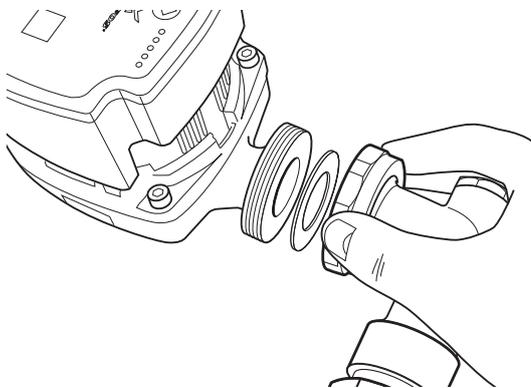
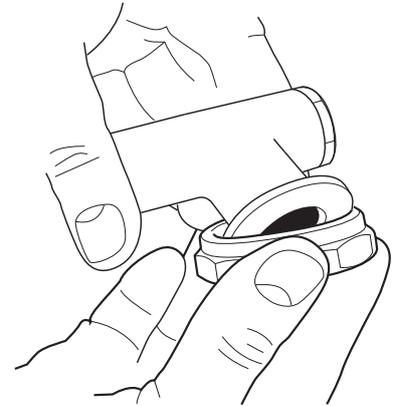
Tighten with an adjustable spanner.





Connect the UFH blending valve to the pump using the pump nut which is pre-assembled to the valve, ensuring the pump washer is inserted. Please take note of the directional arrow on the pump body.

Ensure the 1 ½” pump nut is fitted to the flow connection elbow. If not, this can be slipped over the flanged connection face.

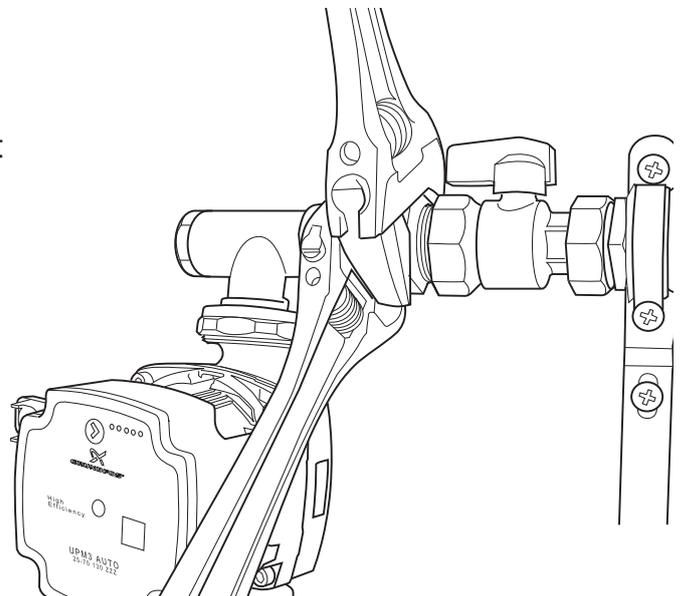


Connect the nickel plated elbow to the pump using the 1 ½” pump nut, ensuring the pump washer is inserted.

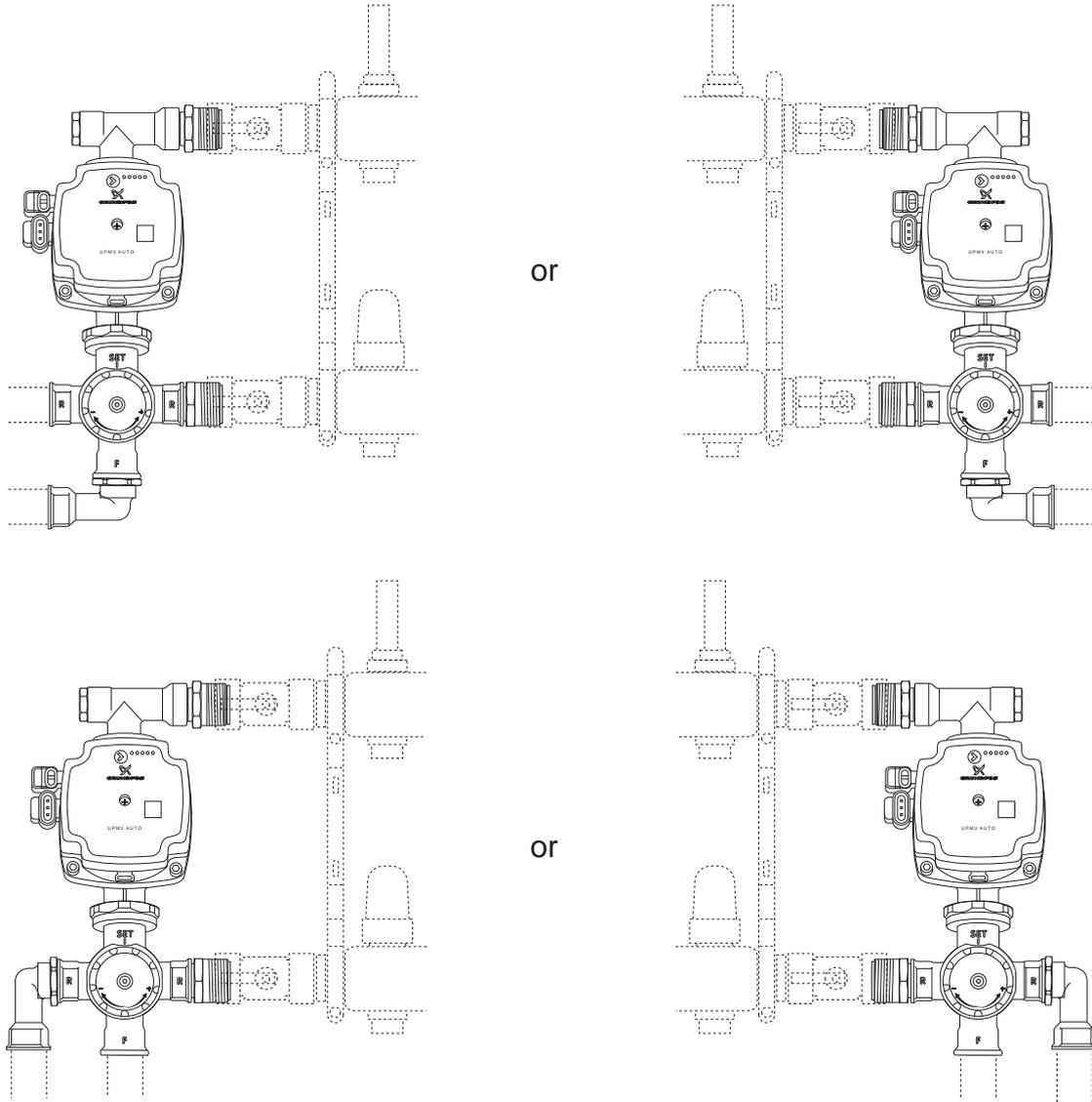
Tighten the pump union connections.

Connect the elbow to the flow manifold by means of the 1” MBSP connection onto the flat faced union connection, remembering to fit the 1” fibre washer.

Connect the UFH Control Kit to the return manifold by means of the 1” MBSP connection onto the flat faced union connection again remembering to fit the 1” fibre washer.



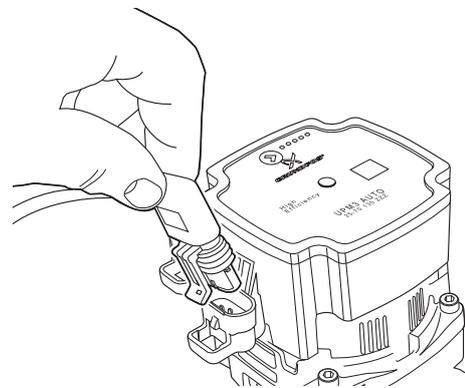
## UFH Blending Valve and Manifold orientation options:



## Wiring

A fused spur should be provided adjacent to the manifold to provide power to the pump and two port zone valve if fitted.

The pump is supplied with a plug-in cable for ease of installation.



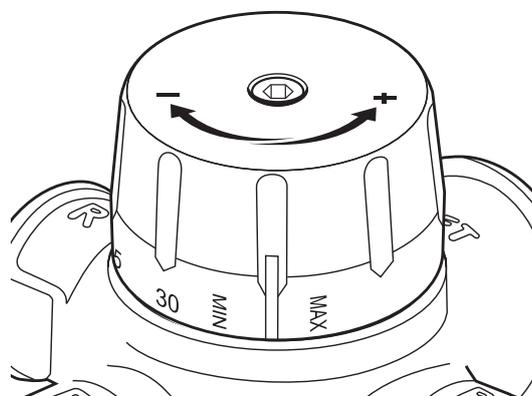
To comply with IEE regulations, the pump on the Thermoguard UFH Control Pack must be provided with an earth. All wiring should be undertaken by a qualified installer and must conform to IEE regulations.

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## Commissioning

The UFH blending valve supplied as part of the control pack has a temperature setting range of 25-60°C as indicated on the temperature adjustment cap:

Min (25°C)  
30°C  
35°C  
40°C  
45°C  
50°C  
55°C  
Max (60°C)



The temperature control is factory set to 45°C with the cap in the adjustable position.

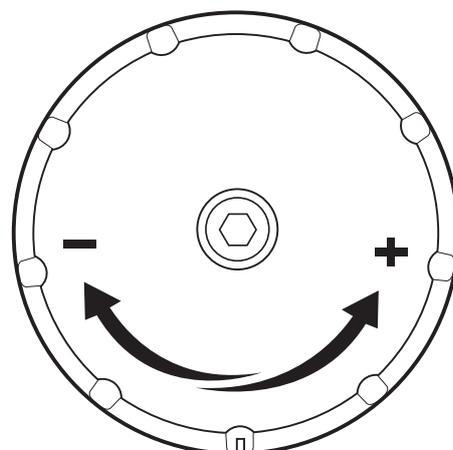
Initial setting of the thermostatic blending valve (after the heat up/screed drying period) should provide the following temperatures:

Screeded floors: 40-45°C  
Timber floors: 55-60°C

These initial settings can then be adjusted to provide the correct comfort level. A maximum floor surface temperature of 29°C should not be exceeded (with the exception of wet areas such as bathrooms, 35°C) as this may lead to feelings of discomfort.

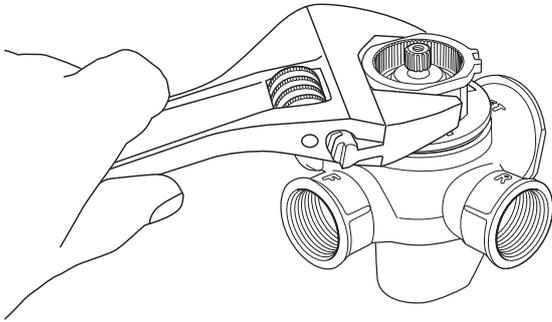
With timber floor finishes including strip laminate products the maximum floor temperature of 27°C should not be exceeded as this may result in excessive shrinkage of the material. **Maximum temperatures can vary so check the floor manufacturers recommendations first.**

To adjust the temperature simply rotate the temperature control handle clockwise or anti-clockwise as indicated on the cap, until you reach the required setting.



## Maintenance

Isolate the flow and return to the UFH blending valve and partially drain down the UFH manifold using the drain/filling valves provided.



To clean or replace the internals of the UFH blending valve, first remove the temperature control knob from the top of the valve.

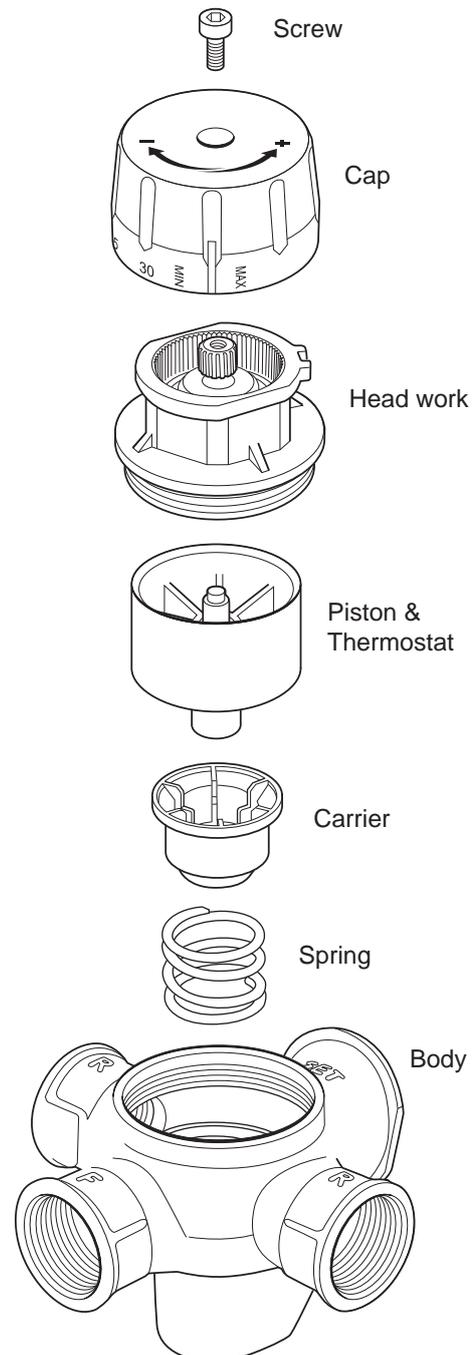
Remove the valve headwork by unscrewing the hex nut with an allen key.

Slide the piston/thermostat assembly and spring out of the valve body.

Clean all internal surfaces of the valve with a weak solution of scale remover.

Using a silicon based waterproof grease, lightly lubricate the external surface of the piston and thermostat assembly.

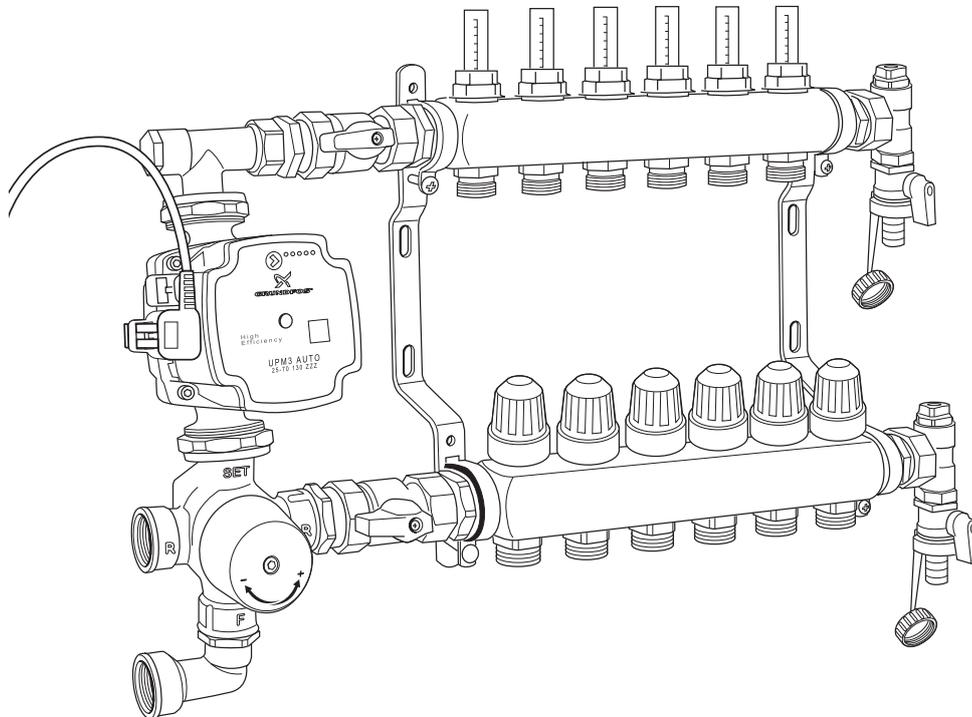
After cleaning, re-assemble the UFH blending valve, ensuring the components are returned in the correct order. Re-set the valve as laid out in the commissioning section.



## Spares & Accessories

Product	Size	Code
UFH blending valve and Elbow	3/4" FBSP x 1" MBSP	HEAT970360
Internal Service Kit for UFH blending valve	N/A	SKIT970360
UFH Nickel Elbow with 1/2" plug	1" MBSP	ZKIT970215
Grundfos UPM3 'A' rated pump	1 1/2" MBSP	PUMP950200
Angled Pump Cable	N/A	WIRE950200
UFH Tee Kit, to suit alternative manifold connection	3/4" FBSP x 3/4" MBSP	ZELB970360
Headwork for UFH mixing valve	N/A	ZEAD970360
Isolating Ball Valve	3/4"	BVAL900001
63mm dial Pressure/ Temperature Gauge, up to 4 bar/ 120°C	1/2"	GAGE600001
Pocket 50mm dial Temperature Gauge, 0 - 120°C	1/2"	GAGE600005
UFH Overheat Thermostat	1/4"	STAT970300
Replacement Cap for UFH blending valve	N/A	ZCAP970361

## Typical Installation



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## Notes

# SOLFEX

UNDERFLOOR HEATING

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