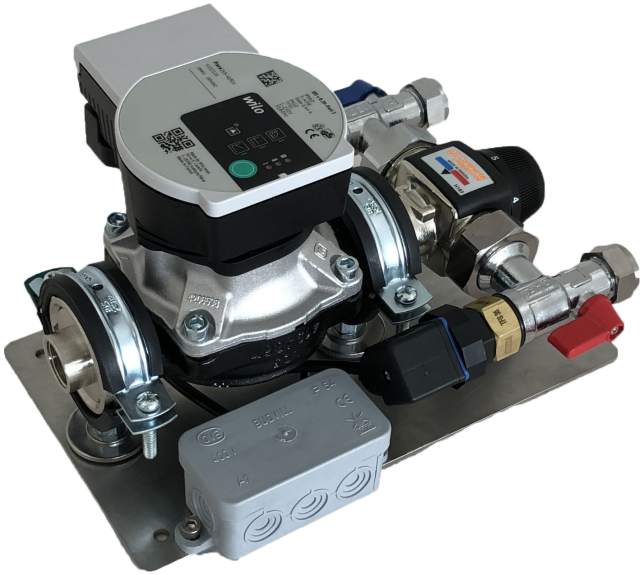
HeatMax™ Small Area Pump Mixer

32008



Boxed set pre-assembled for immediate installation, including:

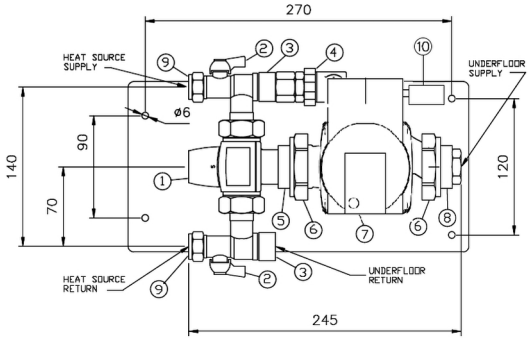
- Thermostatic mixing valve adjustable from 35°C to 60°C
- Temperature switch for pump control on inlet water temperature - 40°C
- Wilo Para 25/6 SCU
- 1/2" BSP female connection to underfloor flow and return
- Nickel plated for improved appearance
- Built-in isolating valve in flow/return elbow
- 15mm compression connection flow and return
- TMV body kvs 1.3
- Mounted pump control terminal box

1. General

1.1 The HeatMax™ large area mixer has been designed for control of flow and water temperature in an underfloor heating system. It is pre-assembled and tested to ensure that it can be fitted with the minimum of on-site labour and commissioned immediately once fitted.

1.2 It is designed to connect to new and existing heating system with 15mm compression connections for the flow and return. The temperature switch to supply power to the pump will remain open until the existing heating system water is above 40°c, then the switch will close switching on the pump which will allow the TMV to mix flow and return to the required UFH temperature.

2. Connections & Dimensions



ITEM	DESCRIPTION	QTY
1	VTA362 – TMV 35-60 DEG C KV1.3	1
2	ISOLATION BALL VALVE	2
3	1/2 BSP FEMALE ADAPTOR	1
4	TEMPERATURE SWITCH 40 DEG C	1
5	1" BSP X 1 1/2"FLANGE ADAPTOR	1
6	1 1/2" PUMP FLANGE NUT	1
7	YONDS PARA PUMP	1
8	1/2" BSP FEMALE ADAPTOR	1
9	1/2 COMPRESSION CONNECTIONS	2
10	TERMINAL BOX	1

Fig.1 Overall Connections and Dimensions

3. Technical Data

Maximum static pressure	10 bar
Maximum differential pressure	3 bar
Maximum temperature	95oC
Operating temperature Range	Adjustable between 35oC and 60oC
Inlet connections	**15mm compression**
Outlet connections	**1/2" BSP Female**
Kvs	**1.3**

4. Installation

4.1 Remove the assembly carefully from the packaging and check to ensure that all components are in place and that there is no damage to them.

4.2 The HeatMax™ Small Area Pump Mixer is supplied for connection with return to the left hand side but can be altered very simply for connection to the right hand side.

4.3 Using an appropriate spanner, loosen the rotating flange nut securing the mixed outlet of the TMV to the pump inlet.

4.4 The upper assembly can then be rotated through 180° reversing the connections. Care should be taken not to over stretch the cable connection to the temperature switch. Retighten pump flange nut.

4.5 The pump mixer can be attached to the heating system. Using the dimensions shown in Figs. 1, ensure that there is sufficient space for installation and maintenance at the intended position.

5. Commissioning

5.1 Filling the UFH system – The TMV is modified to allow the return flow port to be always partly open as such care should be taken to ensure the UFH is fully filled and not bypasses through the TMV.

5.2 The pump mixer and underfloor circuits can now be filled and commissioned in accordance with the manifold instructions. Prior to filling, a final check of all joints should be made to ensure no connections have loosened during transit.

5.3 Ensure that the pump is filled and vented, operate the controls system to call for heat then select the desired pump setting.

5.4 Wiring should be carried out by a competent electrician following the wiring diagram Fig. 6 on the next page.

6. Wiring

Wiring the HeatMax™ Small Area Pack is simple, all you need is a 3A mains fused spur. The HeatMax™ Small Area Pack automatically detects when your radiator or mains heating circuit is on using a temperature control switch built within the unit.

1. Use the junction box included to wire your thermostat and fused spur as shown below.

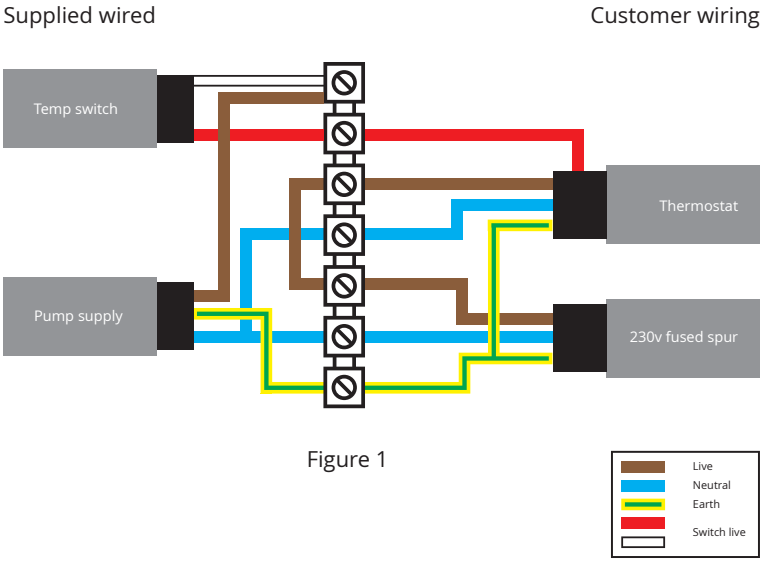
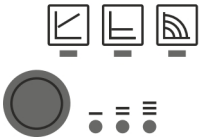


Figure 1

7. Pump control modes and functions

Operating button



Controls

- Select control mode
- Select pump curve (I, II, III) within the control mode (Press and hold)
- Activate the pump venting function (press for 3 seconds)
- Activate manual restart (press for 5 seconds)
- Lock/unlock button (press for 8 seconds)

Indicator lights (LEDs)

Signal display

- LED is lit up green in normal operation
- LED lights up/flashed in case of a fault
- (See chapter 10.1)

- Display of selected control mode Δp-v, Δp-c and constant speed

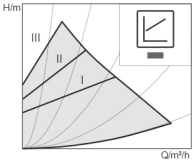
- Display of selected pump curve (I, II, III) within the control mode

- LED indicator combinations during the pump venting function, manual restart and key lock

Setting number	1	2	3	4	5	6
Temperature °C	35	40	45	50	55	60

Fig. 10 Choose the setting number to give the correct temperature for your system. The setting numbers are a guide only and should be checked against the fitted temperature gauge.

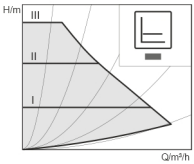
Variable differential pressure Δp-v (I, II, III)



Recommended for two-pipe heating systems with radiators to reduce the flow noise at thermostatic valves. The pump reduces the delivery head to half in the case of decreasing volume flow in the pipe network. Electrical energy saving by adjusting the delivery head to the volume flow requirement and lower flow rates. There are three pre-defined pump curves (I, II, III) to choose from.

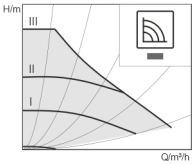
Recommended for underfloor heating for large-sized pipes or all applications without a variable pipe network curve (e.g. storage charge pumps), as well as single-pipe heating systems with radiators. The control keeps the set delivery head constant irrespective of the pumped volume flow. There are three pre-defined pump curves (I, II, III) to choose from.

Constant differential pressure Δp-c (I, II, III)



Recommended for underfloor heating for large-sized pipes or all applications without a variable pipe network curve (e.g. storage charge pumps), as well as single-pipe heating systems with radiators. The control keeps the set delivery head constant irrespective of the pumped volume flow.

Constant speed (I, II, III)



There are three pre-defined pump curves (I, II, III) to choose from. Recommended for systems with fixed system resistance requiring a constant volume flow. The pump runs in three prescribed fixed speed stages (I, II, III).

NOTE: Factory setting: Constant speed, pump curve III

Want more information?

0333 800 1750

www.ufh.co.uk