

# HeatMax™ Large Area Mixer

## 33058



## Boxed set pre-assembled for immediate installation, including:

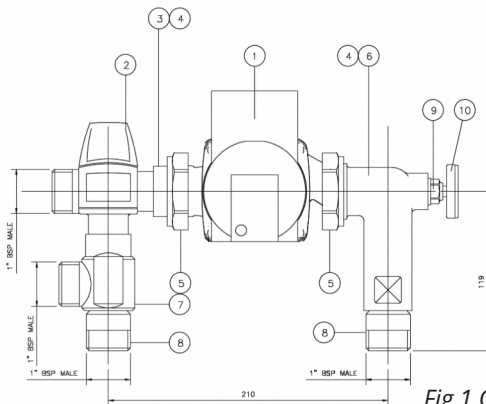
- Thermostatic mixing valve adjustable from 20°C to 55°C
- Temperature gauge measuring mixed water temperature
- Wilo Para 25/6 SCU
- 1" M swivel joints for fast connection to 1" F manifold tapings
- Nickel plated for improved appearance
- Built-in non-return valve in flow elbow to allow simple system filling when commissioning
- 1" M close coupled flow and return connections
- Suitable for any manifold with connections on 210mm centres
- Valve body kvs 3.4

## 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 the left hand side of a manifold with 210mm between the centres of the flow and return arms. The control group can also be altered to fit to the right hand side of a manifold simply by turning the control group elbows through 180 degrees using the union fittings at the top and bottom of the pump. The pump motor may need to be rotated through 180 degrees to minimise the space occupied by the control group.

## 2. Connections & Dimensions



| ITEM | DESCRIPTION                      | QTY |
|------|----------------------------------|-----|
| 1    | WILD 25/6-SCU                    | 1   |
| 2    | THERMOSTATIC MIXING VALVE VTA372 | 1   |
| 3    | 5mm SCREWED FLANGE E1000-03B     | 1   |
| 4    | 2mm RUBBER WASHER                | 2   |
| 5    | 1 1/2" RAPID CONNECTION NUT      | 2   |
| 6    | ELBOW TBA                        | 1   |
| 7    | TEE 3/4" x 1" TBA                | 1   |
| 8    | 1" BSP MALE ADAPTOR              | 2   |
| 9    | 3/8" POCKET                      | 1   |
| 10   | TEMPERATURE GAUGE                | 1   |

Fig.1 Overall Connections and Dimensions

## 3. Technical Data

|                               |                                  |
|-------------------------------|----------------------------------|
| Maximum static pressure       | 10 bar                           |
| Maximum differential pressure | 3 bar                            |
| Maximum temperature           | 95°C                             |
| Operating temperature Range   | Adjustable between 20°C and 55°C |
| Inlet connections             | 2 x 1" M (G1)                    |
| Outlet connections            | 2 x 1" M (G1) swivel joint       |
| Overall dimensions mm         | 311h x 191w x 133h               |
| Kvs                           | 3.4                              |

## 4. Installation

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

4.2 The pump mixer is supplied for connection to the left hand side of the manifold but can be altered very simply for connection to the right hand side. This is achieved by rotating the upper and lower elbows through 180 degrees using the pump union nuts.

4.3 The mixer assembly can be attached to the manifold either before or after the manifold is secured to the wall. Using the dimensions shown in Figs. 1, ensure that there is sufficient space for installation and maintenance at the intended position for the control group.

4.4 A swivel joint is fitted to each side of the control group for connecting to the 1" F manifold tapings. The inlet tee swivel joint should be connected to the return rail and the outlet elbow swivel joint to the flow rail of the manifold. Carefully offer up and screw the swivel joint threads evenly into the manifold using a 37mm A/F spanner: the use of a 31mm A/F spanner will also ensure that the connection to the pump mixer is kept tight. The joints use o-ring seals and care should be taken not to over-tighten them.

4.5 Once connected, finish securing the manifold and large area mixer to the wall if not already completed.

4.6 The primary flow and return pipework can now be connected to the 2 x 1" M connections facing downwards. The flow connection is at the left hand side and the return connection is at the right. It is recommended that ball valves are used to isolate this pipework where it is connected to the pump mixer.

## 5. Commissioning

5.1 Filling the UFH system - The built-in non-return valve in the flow elbow allows you to fill the circuits from the upper flow rail drain and fill valve only.

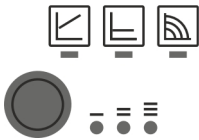
Be aware that you cannot get the benefit of this feature when filling via the primary flow and return connections or the lower manifold rail drain and fill valve.

5.2 The HeatMax™ Large Area Mixer, manifold 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 The pump is supplied with a pre-connected 1m long 3-core lead assembly ready for connection to the electrical controls system. Ensure that the pump is filled and vented, operate the controls system to call for heat then select the desired pump setting.

## 6. 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  $\Delta p$ -v,  $\Delta p$ -c and constant speed

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

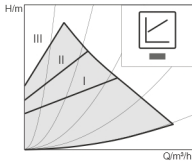


- LED indicator combinations during the pump venting function, manual restart and key lock

|                |    |    |    |    |    |    |
|----------------|----|----|----|----|----|----|
| Setting number | 1  | 2  | 3  | 4  | 5  | 6  |
| Temperature °C | 20 | 27 | 34 | 41 | 48 | 55 |

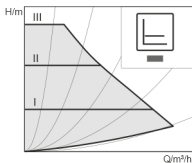
*Fig. 10 Choose the setting number to give the correct temperature for your system. The setting numbers are a guide only and should be checked against the fitted temperature gauge.*

**Variable differential pressure  $\Delta p-v$  (I, II, III)**



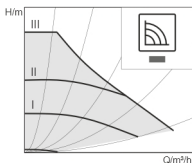
Recommended for two-pipe heating systems with radiators to reduce the flow noise at thermostatic valves. The pump reduces the delivery head to half in the case of decreasing volume flow in the pipe network. Electrical energy saving by adjusting the delivery head to the volume flow requirement and lower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

**Constant differential pressure  $\Delta p-c$  (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. There are three pre-defined pump curves (I, II, III) to choose from.

**Constant speed (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.

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?

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