

HeatMax™ large area mixer

33058



Pre-assembled for immediate installation, including:

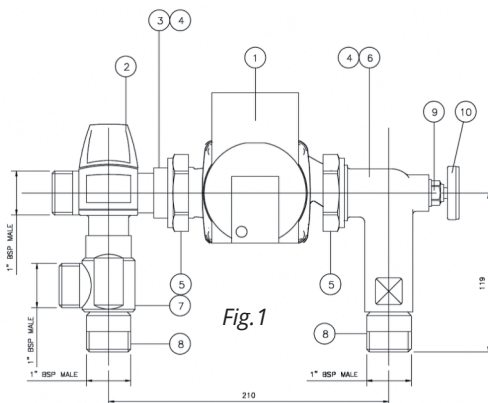
- Thermostatic mixing valve adjustable from 20°C to 55°C
- Temperature gauge measuring mixed water temperature
- Wilo Para 25/6 SCU
- 1" M swivel joints for fast connection to 1" F manifold tapings
- Nickel plated
- Built-in non-return valve in flow elbow to allow simple system filling when commissioning
- 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 to control the 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 installed.

1.2 It is designed to connect to the left-hand side of a manifold that has 210mm between the centres of the flow and return arms. It can also be altered to fit to the right-hand side of a manifold simply by turning the elbows through 180° using the union fittings at the top and bottom of the pump. The pump motor may need to be rotated through 180° to minimise the space occupied.

2. Technical Data



Item	Description	Qty
1	Wilo Para pump	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	1
7	Tee 3/4" x 1"	1
8	1" BSP male adaptor	2
9	3/8" pocket	1
10	Temperature gauge	1

Maximum static pressure	10 bar
Maximum differential pressure	3 bar
Maximum temperature	95°C
Operating temperature range	20°C to 55°C
Inlet connections	2 x 1" M (G1)
Outlet connections	2 x 1" (G1) swivel joint
Overall dimensions	311mm x 191mm x 133mm
Kvs	3.4

3. Installation

3.1 Carefully remove from the packaging and check that all components are in place and there is no damage.

3.2 The HeatMax™ large area 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° using the pump union nuts.

3.3 Pump connections are made with EPDM seals. During commissioning, pump replacement, or pump repositioning, ensure that the seals are tight enough to be leak-free. This is normally indicated by the pump being unable to swivel. Take care not to over-tighten.

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

3.5 A swivel joint is fitted to each side of the HeatMax™ large area mixer for connection to the 1" F manifold tappings. 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.

3.6 Once connected, finish securing the manifold and HeatMax™ large area mixer to the wall (if not already completed).

3.7 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 to the right. It is recommended that ball valves are used to isolate this pipework where it is connected to the HeatMax™ large area mixer.

The joint below the thermostatic valve is factory Loctite-sealed and must not be broken. Ensure that all pipework is aligned precisely and in line with the connections.

4. Commissioning

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

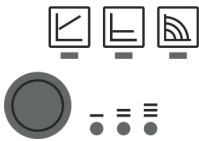
Be aware that you cannot get the benefit of this feature when filling via the primary flow and return connections, or the lower manifold rail drain and fill valve.

4.2 The HeatMax™ large area mixer, manifold and underfloor circuits can now be filled and commissioned in accordance with the manifold instructions. Prior to filling, have a final check of all the joints to ensure that no connections have loosened during transit.

4.3 The pump is supplied with a pre-connected, one metre long, 3-core lead, which is ready for connection to the electrical control system. Ensure that the pump is filled and vented. Operate the control system to call for heat, then select the desired pump setting.

5. 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

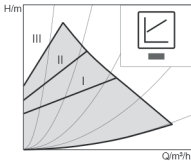


- LED indicator combinations during the pump venting function, manual restart and key lock

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

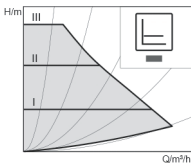
Choose the setting number to give the correct temperature for your system. The setting numbers are a guide only and should be checked against the fitted temperature gauge.

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



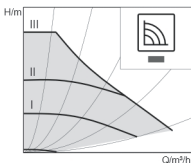
Recommended for two-pipe heating systems with radiators to reduce the flow noise at thermostatic valves. The pump reduces the delivery head to half in the case of decreasing volume flow in the pipe network. Electrical energy saving by adjusting the delivery head to the volume flow requirement and lower 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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