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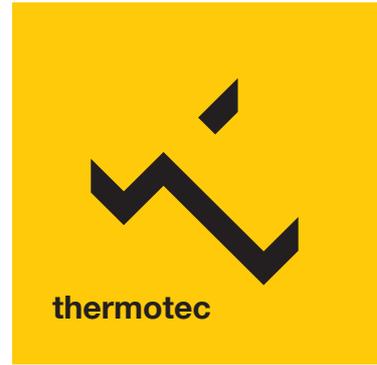
## Product

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### Standard Manifold / Pumped Mixing Manifold

The manifold is the heart of an underfloor heating system, controlling the flow of warm water to each zoned area of pipework.

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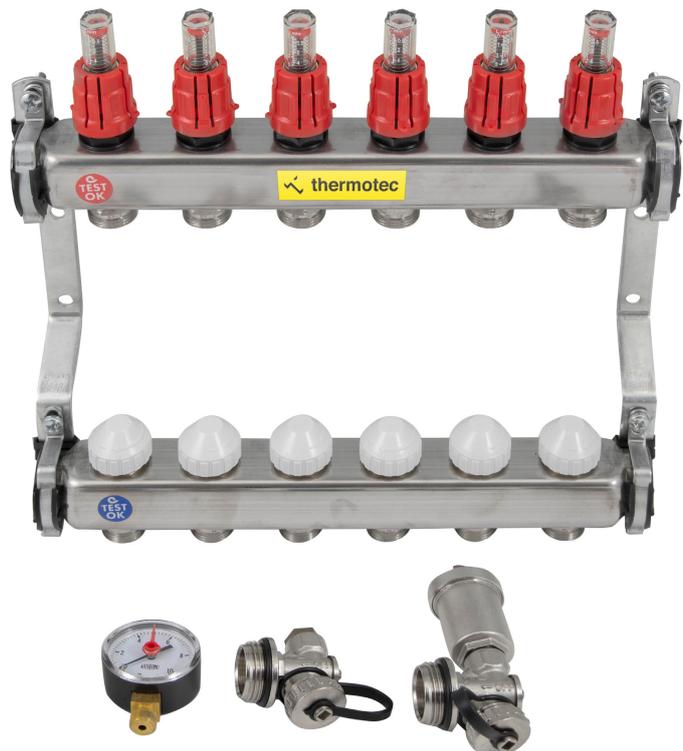


#### PUMPED MIXING MANIFOLDS

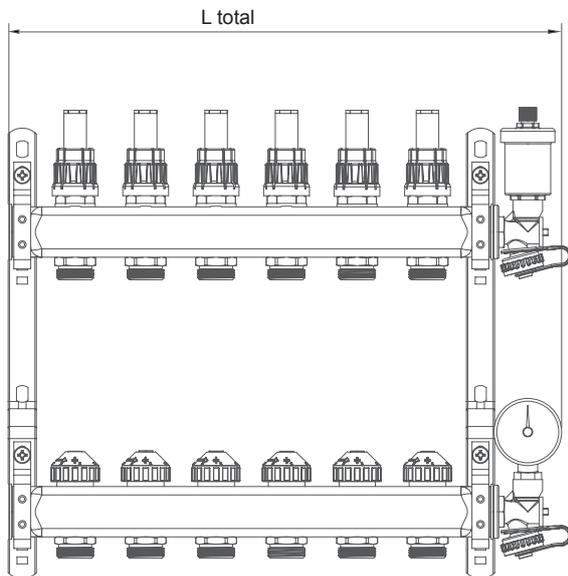
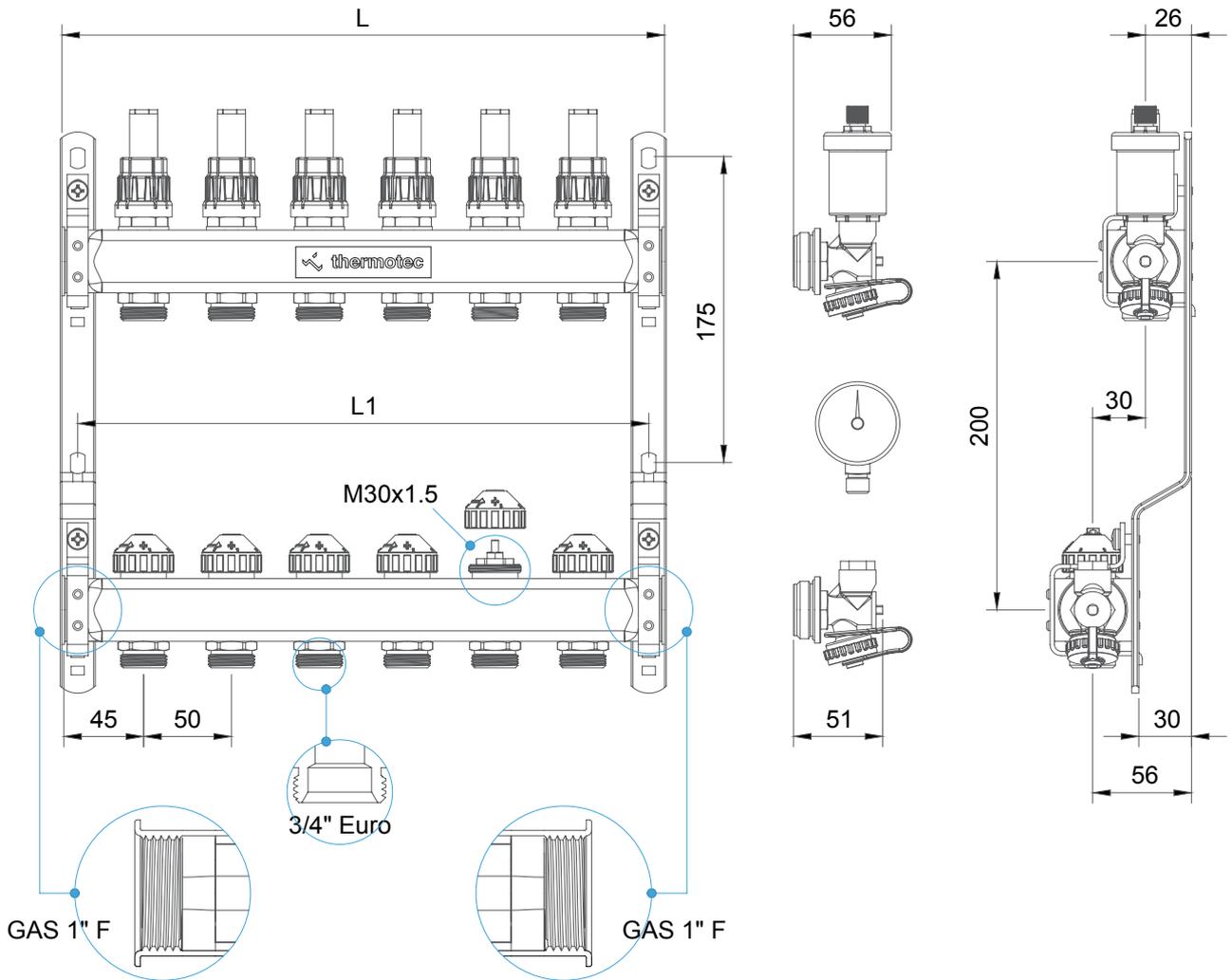
The Aquafloor pumped mixing manifolds are primarily for use where the low pressure hot water supply to the manifold is at a higher temperature than that is required for the underfloor heating system. Underfloor heating systems are normally most effective with a 55 C flow water temperature, where as most boilers provide a flow temperature of 80-90 C. Therefore the blending valve, immediately beneath the pump, mixes the flow from the heat source with the return to cool the water to the desired temperature. The nature of a manifold is to distribute multiple circuits to dedicated areas. The flow meters provide a way of checking that warm water is moving through each circuit and also that the meter reading on one loop is proportionate to that on another. Electronic thermal actuator valves are required for the control of water to each zone allowing the system to provide individual room temperature control. Each actuator is controlled by the room thermostat switching the actuator on and off, controlling the flow of water to the zone.

#### STANDARD MANIFOLDS

The Aquafloor standard manifolds are used where the water supply to the manifold is provided at the correct temperature and flow rate for the underfloor system. The manifolds are manufactured in chrome plated brass or stainless steel and are available in various sizes. The flow meters, located on the flow manifold, let you check that water is flowing through each circuit allowing the system to be balanced by adjusting flow rates to meet the design requirements. The electric actuator heads, located on the return manifold, open and close the individual loops and each actuator is controlled by a thermostat that switches on/off to control the room temperature.

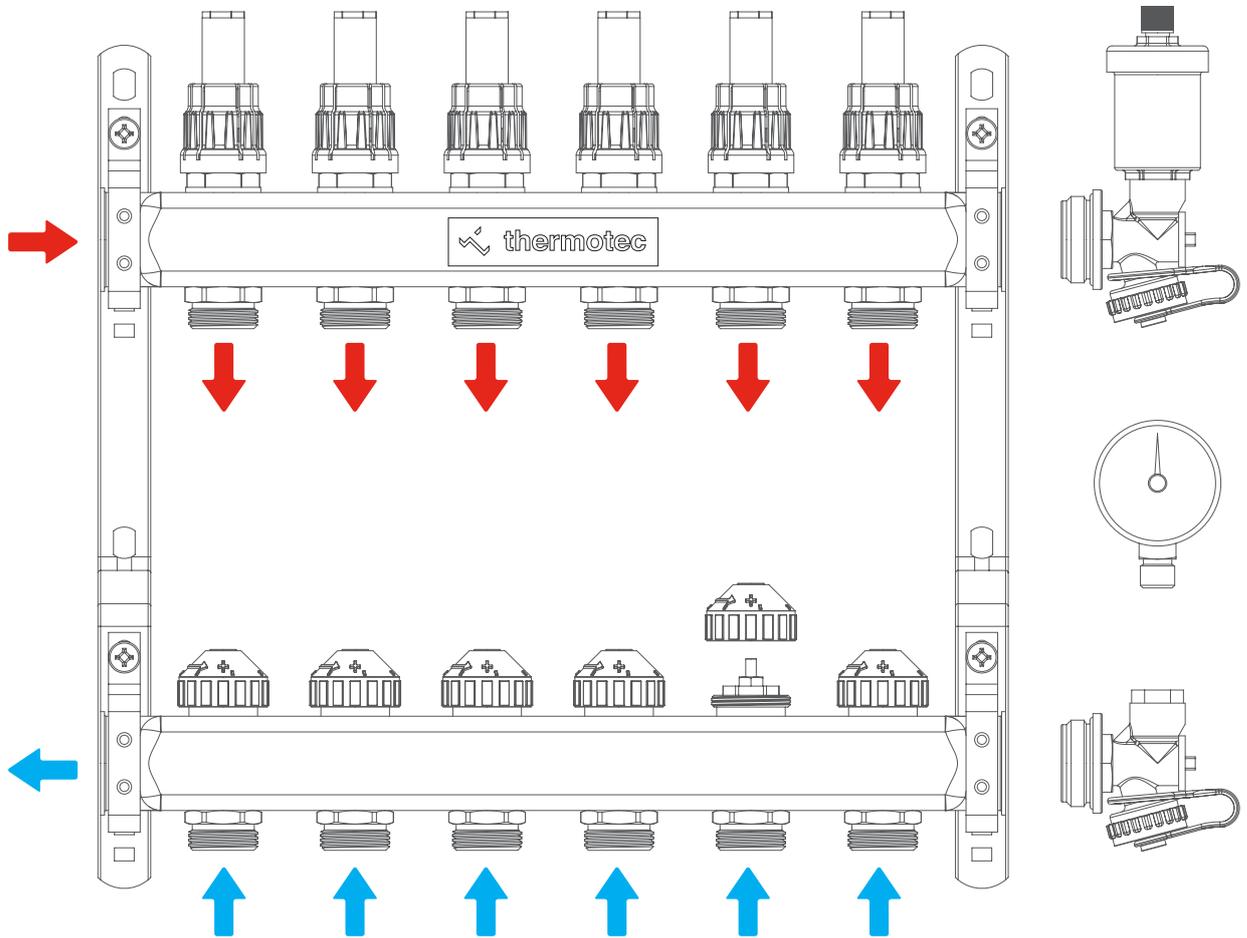


## Manifold Dimensions

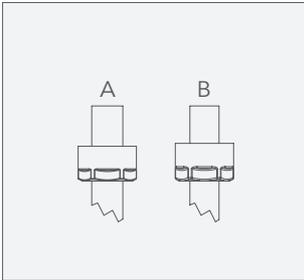


OUTLETS	SIZE	L (mm)	L1 (mm)	Ltotal (mm)
CL074500203N	2	143	125	192
CL074500303N	3	193	175	242
CL074500403N	4	243	225	292
CL074500503N	5	293	275	342
CL074500603N	6	343	325	392
CL074500703N	7	393	375	442
CL074500803N	8	443	425	492
CL074500903N	9	493	475	542
CL074501003N	10	543	525	592
CL074501103N	11	593	575	642
CL074501203N	12	643	625	692
CL074501303N	13	693	675	742

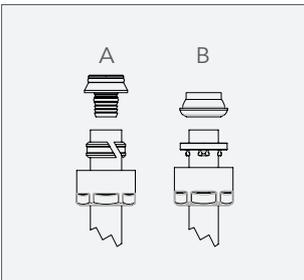
## Manifold Flows



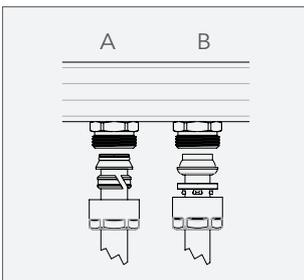
## Pipe Installation



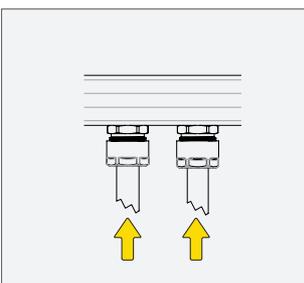
Cut the multilayer pipe (A) or the copper tube (B) in a perpendicular way and then calibrate it. Place the nut on the pipe.



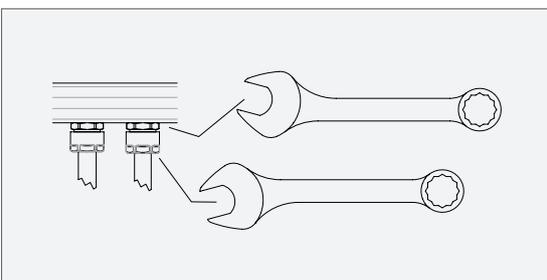
Insert the hose union or the gasket into the threaded terminals



Insert the hose union or the gasket into the threaded terminals

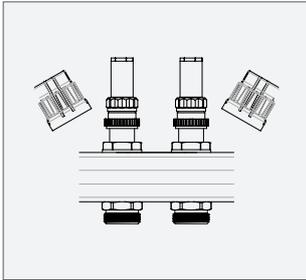


Push the pipe up to the stop and turn the nut manually

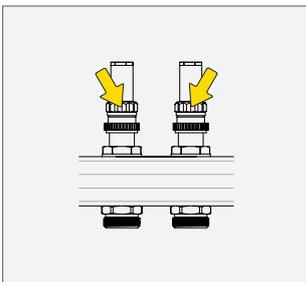


Push the pipe up to the stop and turn the nut manually

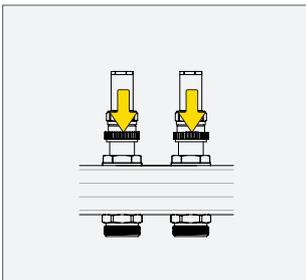
## Flow Regulation: Flowmeters



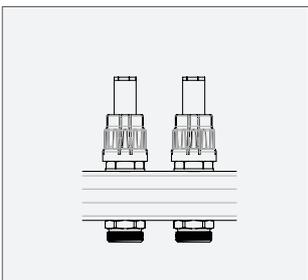
Remove the red plastic lock shield from the flowmeters. Insert the hose union or the gasket into the threaded terminals.



Set the flowmeter adjustment to the project value by manually rotating the ring indicated by the arrow. It is not necessary to use tools.



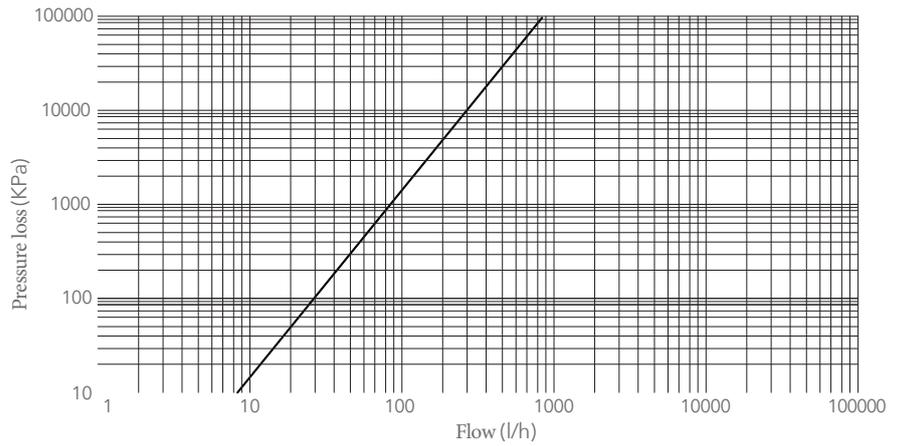
Screw the red "memory stop" ring nut counter-clockwise (left thread) until it reaches the end of the stroke. It is not necessary to use tools.



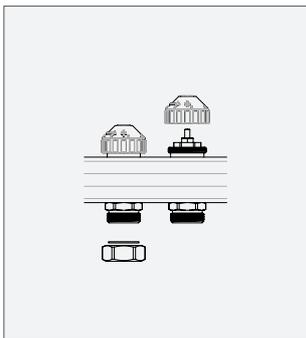
Reposition the lock shield. By turning it clockwise, it is possible to close the single circuit. Turning the lock shield counter-clockwise the circuit will re-open up to the set project value.

## Flowmeters fluid dynamics features (flow)

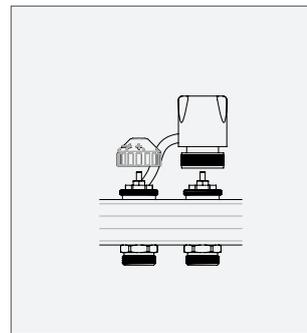
Pa	KPa	L/H
10	0.01	8
100	0.1	25
500	0.5	60
1000	1	82
5000	5	182
10000	10	260
20000	20	365
30000	30	450
40000	40	520
50000	50	585
60000	60	640
70000	70	690
80000	80	740
90000	90	785
100000	100	825



## Flow Regulation: Return



The return valve can be closed for draining and filling the loads. Turn in the direction indicated by the arrow on the protection caps.



Check that the protection caps or actuators are properly screwed on the return valves.

