

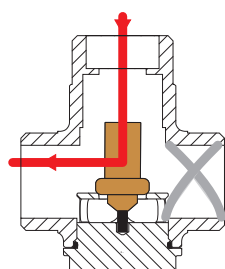
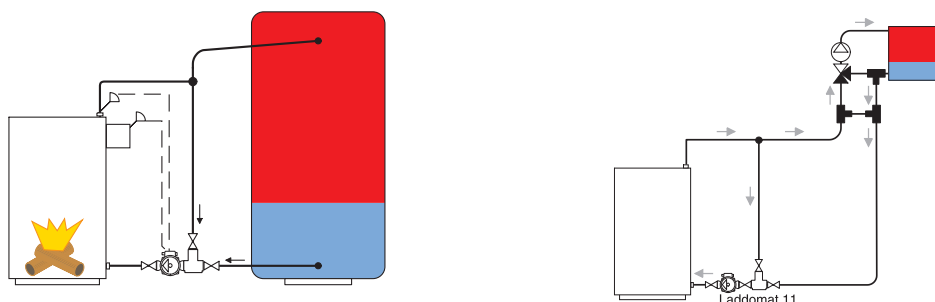
LADDOMAT® 11-30 & 11-100

Manual and installation instructions

Function

Thermal layering

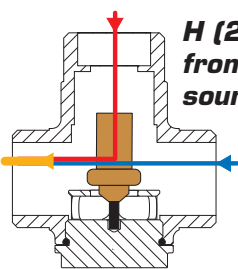
Thanks to its design and control features, the Laddomat 11 means optimal thermal layering in storage tanks, with a low and even charging flow. This layering system is beneficial as it increases storage capacity.



Start up phase

M (1) = Mixed return flow to bottom of heat source

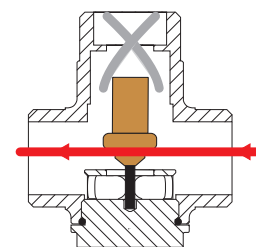
Pump placement and flow direction, to bottom of heat source



Operating phase

H (2) = Hot flow from top of heat source

C (3) = Cold return flow



Final phase

Technical data

Laddomat 11-30:

Thermostat cartridge:	45°, 53°, 57°, 63°, 66°, 72°, 78°, 83° or 87°C
Pump:	4 m, < 30 kW 6 m, < 45 kW 6 m ErP, < 60 kW
Connection:	3 x Cu22 3 x R25
Max. boiler output:	60 kW (see pump above)
Kvs-value:	3,4 m³/h
Pressure class:	PN 6
Max. temp:	Max +100°C Min +5°C

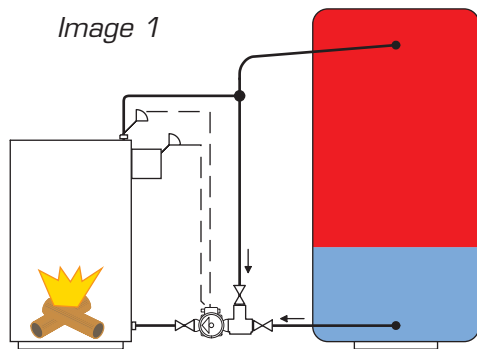
Laddomat 11-100:

Thermostat cartridge:	45°, 53°, 57°, 63°, 66°, 72°, 78°, 83° or 87°C
Pump:	6 m, < 65 kW 7 m, < 120 kW Special, > 120 kW
Connection:	3 x Cu28 3 x R32
Max boiler output:	200 kW (see pump above)
Kvs-value:	14 m³/h
Pressure class:	PN 6
Max. temp:	Max +100°C Min +5°C

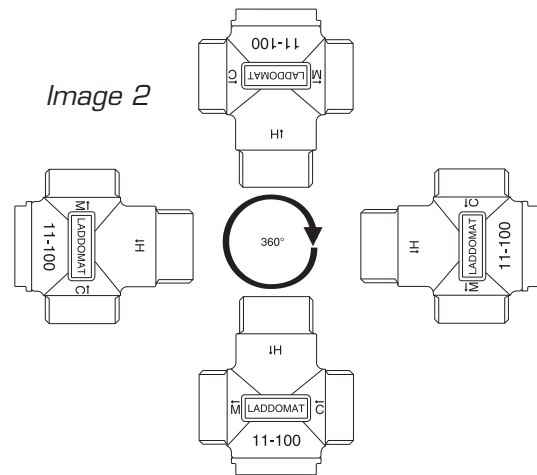
Dimensioning

1. Highest suitable charge temp = (safety thermostat breaking temp - 5–10°C)
2. Minimum suitable inlet temp to boiler bottom (according to boiler manufacturer instructions)
3. Dt = Differential temperature between boiler inlet and outlet
4. Boiler output
5. $\text{Boiler output} / \text{Dt} = \text{Flow} \rightarrow (P \text{ kW} \times 1000) / (\text{Dt} \times 1.16) = Q \text{ l/h}$
Example: $(30 \text{ kW} \times 1000) / (20^\circ\text{C} \times 1.16) = 1293 \text{ l/h}$
6. Valve pressure drop + pipe system pressure drop (at relevant flow)
7. Pump according to relevant manufacturer's pump curve

Connection



Shut off valves are installed to facilitate servicing.
Laddomat 11 should be placed low to avoid keeping the valve hot.



The installation position does not affect the function of the valve.
The lines must be connected to the correct part on the valve.

Starting the pump

See image 3-6.

On non ErP pumps, Speed 1 is not recommended because most pumps has a low starting torque at this speed, which can lead to the pump not being able to start.

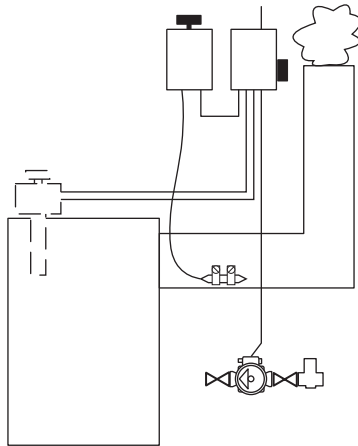


Image 3

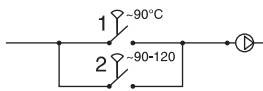


Image 4

Pump start alternative

On, for example, pellet burners the pump can be started and stopped at the same time as the burner.

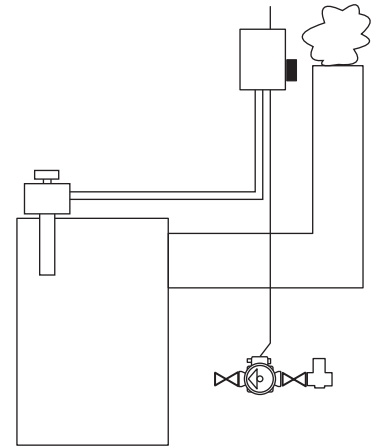


Image 5

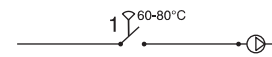
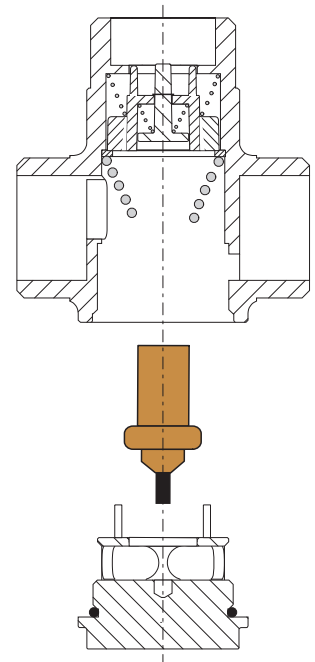
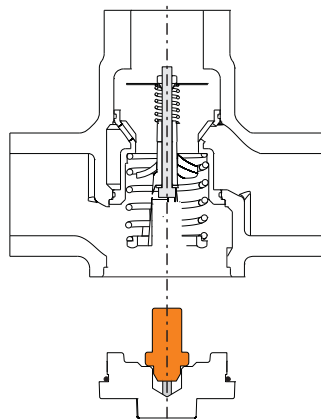
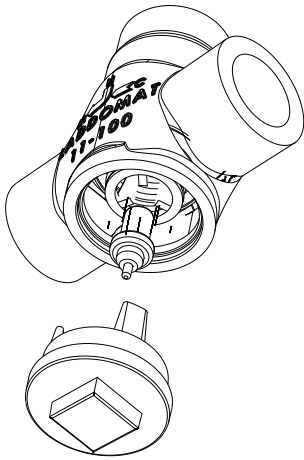


Image 6

Service

To replace the cartridge, see image.



The cartridge is easily replaced by unscrewing the cap. The cartridge is loose in the cap and comes out with it (when installing with cap down).

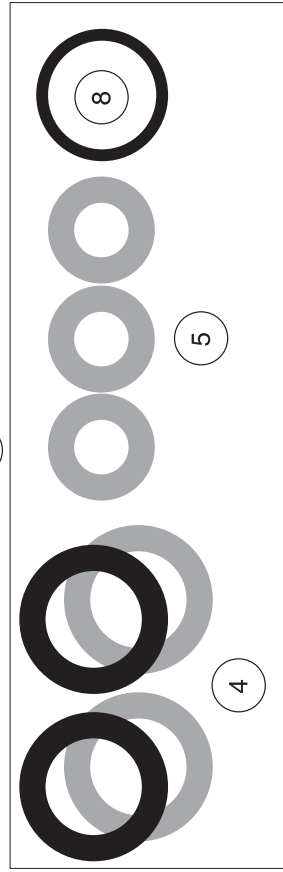
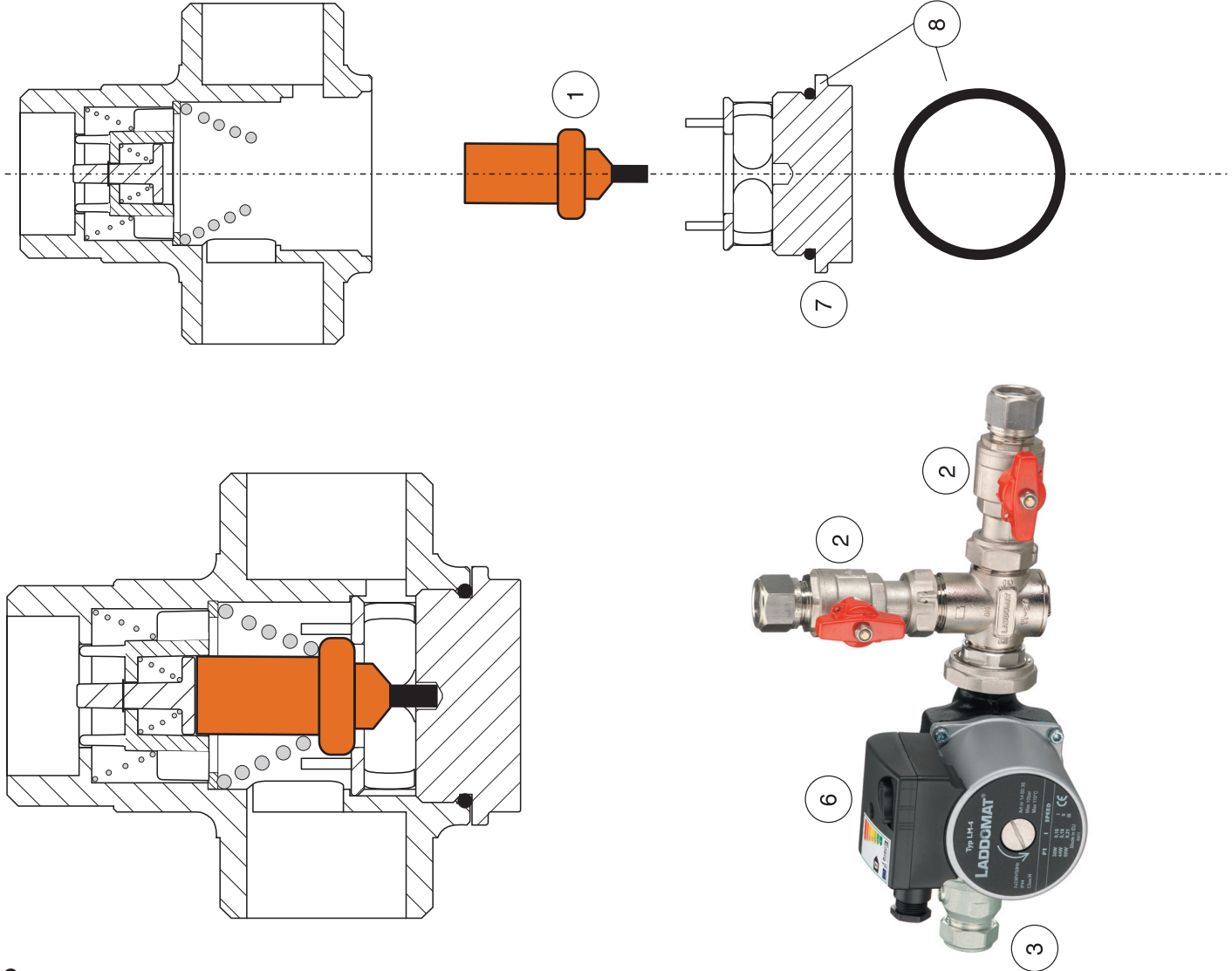
Thermostat cartridges are available as a replacement part:

Type	Opening temperature	Art. No.
9311	45°C	11 00 45
5840	53°C	11 00 53
8749	57°C	11 00 57
5839	63°C	11 00 63
1240	66°C	11 00 66
8719	72°C	11 00 72
1456	78°C	11 00 78
1467	83°C	11 00 83
8222	87°C	11 00 87

Termoventiler AB

Nolhagavägen 12
SE-523 93 MARBÄCK
Tel +46 (0) 321 - 261 80 info@termoventiler.se
Fax +46 (0) 321 - 261 89 www.termoventiler.eu

Pos	Part no.	Description
1	110053	Thermostat cartridge 5840, 53°C
1	110057	Thermostat cartridge 8749, 57°C
1	110063	Thermostat cartridge 5839, 63°C
1	110066	Thermostat cartridge 1240, 66°C
1	110072	Thermostat cartridge 8719, 72°C
1	110078	Thermostat cartridge 1456, 78°C
1	110083	Thermostat cartridge 1467, 83°C
1	110087	Thermostat cartridge 8222, 87°C
2a	141017	Ball valve R25-Cu22, with lever
2b	141001	Ball valve R25-R25, with lever
3a	141019	Ball valve R40-Cu22, with lever
3b	141003	Ball valve R40-R25
4a		Flat gasket, for R40 Ø44/32/2
4b		Flat gasket, FIBRE, for R40 Ø44/32/2
5		Flat gasket, FIBRE, for R25 Ø30/24/2
6	1460XX	Pump (Multiple options available)
7	411104	Cover LM11-30
8		O-ring 29,87*1,78 epdm for cover LM11-30
9	110006	Gasket set for LM11-30



Laddomat 11-100
Spare parts list



Termoventiler AB

Nolhagavägen 12
SE-523 93 MARBÄCK
Tel +46 (0) 321 - 261 80 info@termoventiler.se
Fax +46 (0) 321 - 261 89 www.termoventiler.eu

Pos	Part no.	Description
1	110053	Thermostat cartridge 5840, 53°C
1	110057	Thermostat cartridge 8749, 57°C
1	110063	Thermostat cartridge 5839, 63°C
1	110066	Thermostat cartridge 1240, 66°C
1	110072	Thermostat cartridge 8719, 72°C
1	110078	Thermostat cartridge 1456, 78°C
1	110083	Thermostat cartridge 1467, 83°C
1	110087	Thermostat cartridge 8222, 87°C
2a	141015	Ball valve R40-Cu28, with lever
2b	141301	Ball valve R40-R32, with lever
3a	110011	12 pc. Flat gasket, FIBRE, for R40 Ø44/32/2
3b	110012	12 pc. Flat gasket, for R40 Ø44/32/2
4	1460XX	Pump (Multiple options available)
5	412707	Cover LM11-100
6	351002	O-ring 44,12*2.62 epdm for cover LM11-100
7	164004	EPP-Insulation for LM11-100
8	212701	Regulation kit LM11-100
9	383003	Thermometer for ball valve 141301

