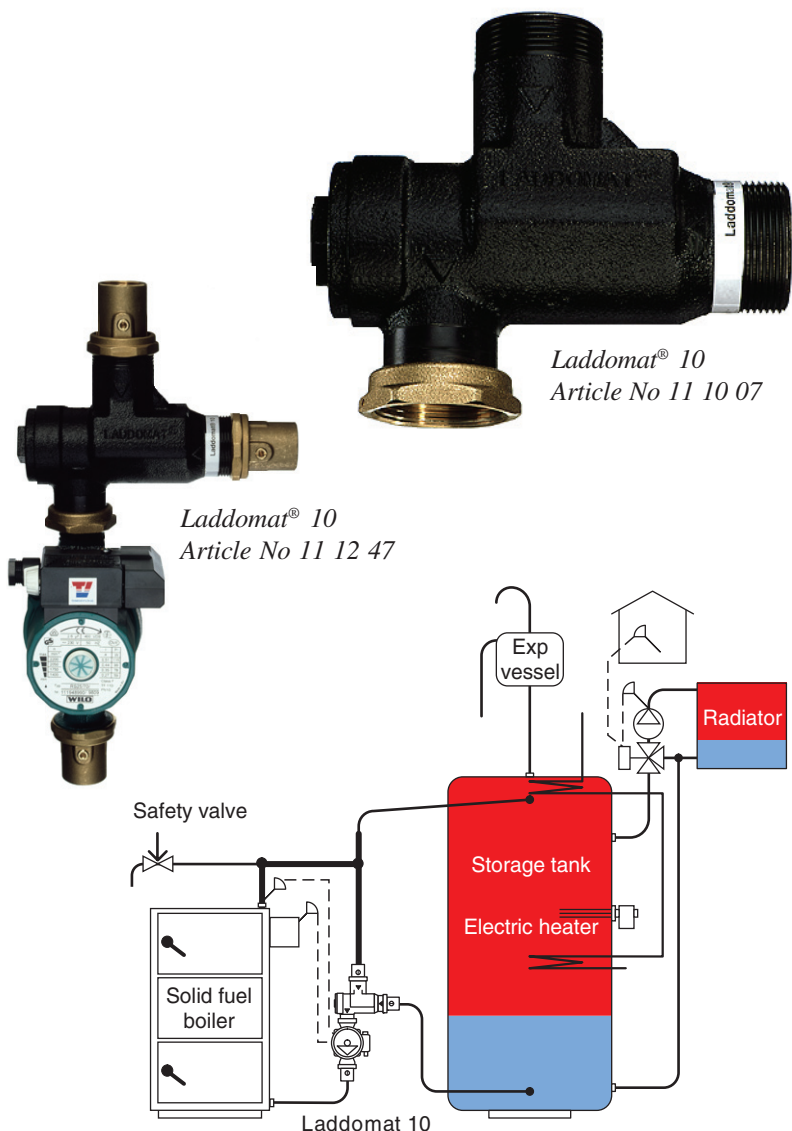


Laddomat® 10

Charging unit for a solid fuel boiler and a storage tank with hot water heater.



- Laddomat 10 raises the return temperature to the bottom of the boiler, combats corrosion due to condensation and extends the service life of the boiler.
- Laddomat 10 helps the boiler reach its working temperature fast, and boosts the efficiency of the boiler.
- Laddomat 10 charges the boiler slowly. The *boundary layer** in the accumulator tank is vital for a comfortable and effective wood heating system. Laddomat 10 optimizes this layer.
- In the shut-down phase of burning, Laddomat 10 ensures the tank is completely charged by the thermal valve closing the bypass port.
- When the boiler is not lit, the built-in non-return valve prevents reverse circulation = small heat loss.
- Simple dimensioning – Laddomat 10 fits all boilers up to 100 kW.
- Laddomat 10 is connected using union couplings – servicing can be carried out easily and smoothly without draining the system.

Technical data

Pump:	Wilo RS25-6/3-130, pressure head 6 mvp, <65 kW Laddomat LM4/3-130, pressure head 4 mvp, <35 kW
Connections:	R32 female (3 pcs) / R25 female (3 pcs)
Opening temperature:	72°C (53°, 57°, 63° and 78° optional extra)
Kv-value:	14 m³/h at 10 mvp
Boiler output:	Max 100 kW (with Wilo RS25-7 or equivalent)
Pump thermostat:	Not included. Select flue gas thermostat No 131001 and thermostat with immersed sensor stick, No 131002, as safety backup.

Ordering data

Article	Article No
Laddomat 10 complete:	
RS25-6/3, R32 female	11 13 67
LM4/3, R25 female	11 12 47
Laddomat 10 without valves and pump	11 10 07

* The **Boundary Layer** is a thin border between the hot water on top and the colder, denser water underneath.

Start up

The circulation pump is started and the water circulates to the **Laddomat 10** and straight back to the boiler again.

Operation

When the boiler water is above the opening temperature of the thermostat on the **Laddomat 10**, a little of the cold water from the bottom of the tank is mixed in.

The charging flow is slowed down and optimal layering is achieved in the tank. The water temperature at the bottom of the boiler depends on the boiler output and the selected thermostat cartridge 60–75°C.

Shut-down phase

In the shut-down phase, the tank is charged full as the **Laddomat 10** shuts off the bypass port so that the full pump flow cools the boiler.

Self circulation

Laddomat 10 does not permit self circulation. To charge the tank during a power failure, an emergency power set is a possible option.

Another option is to fit the **Laddomat 21** charging pack with built-in non-return valve which allows automatic self circulation in the event of power failure.

Starting and stopping the charging pump

Stopping the pump quickly when the fire has gone out minimises the loss of heat by preventing unnecessary circulation between boiler and tank.

An optional flue thermostat, No. 13 10 01, deals with this as it allows the pump to run only when there is a fire in the boiler. If the boiler is equipped with a pump thermostat, this should be connected parallel to the flue thermostat and set at 90°C. This will prevent boiling if there is a lot of ember left in the boiler.

The radiator system

The storage capacity of the tank is optimized if the radiator return is as cold as possible. This is achieved by fitting the radiator systems with:

1. The ThermOmatic CBJ or ERA 10 automatic shunt control, which releases only enough warm water to maintain the desired internal temperature.
2. Thermostatic valves with built-in chokes which are set for radiator size so that the small radiators do not short-circuit the system.

