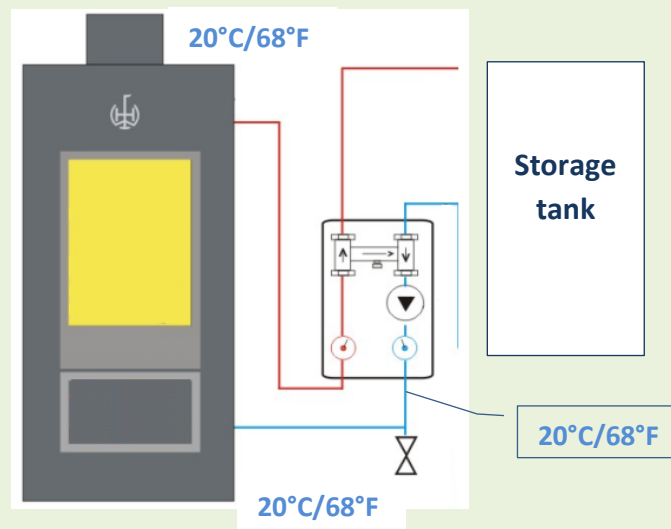




Walltherm – heat output rate and condense protection

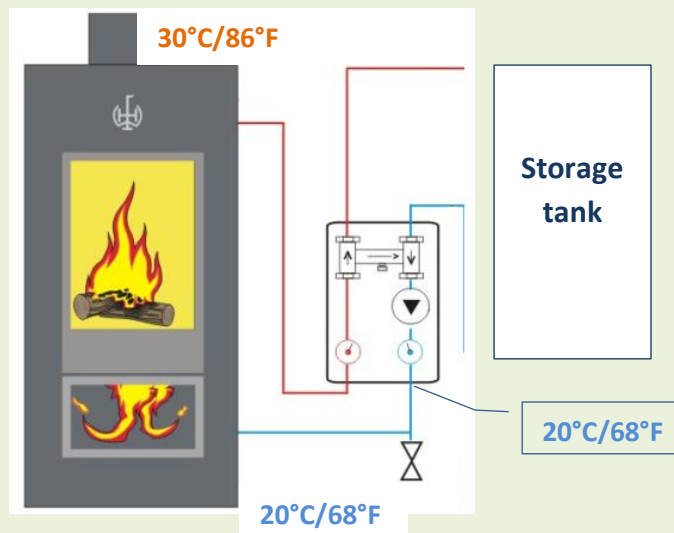
The function of the condense protection

Situation: Walltherm is not burning



The whole system has the ambient temperature.
Let's say 20°C or 68°F

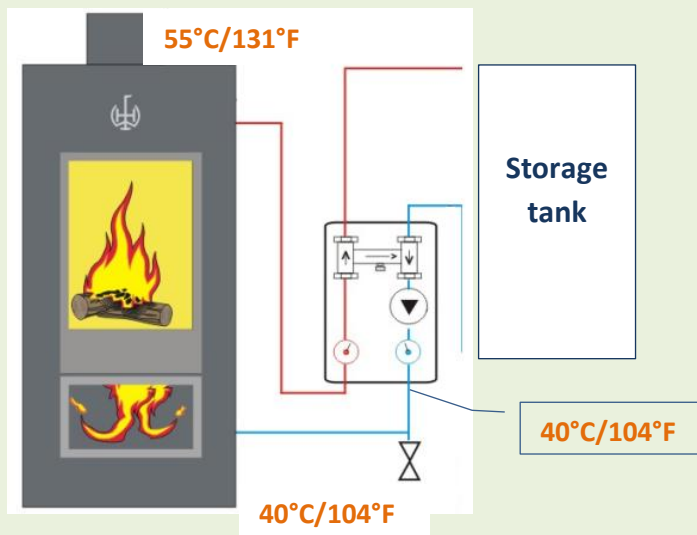
Now we start burning the stove.
The temperature in the stove water will rise. There is no flow in the water jacket.



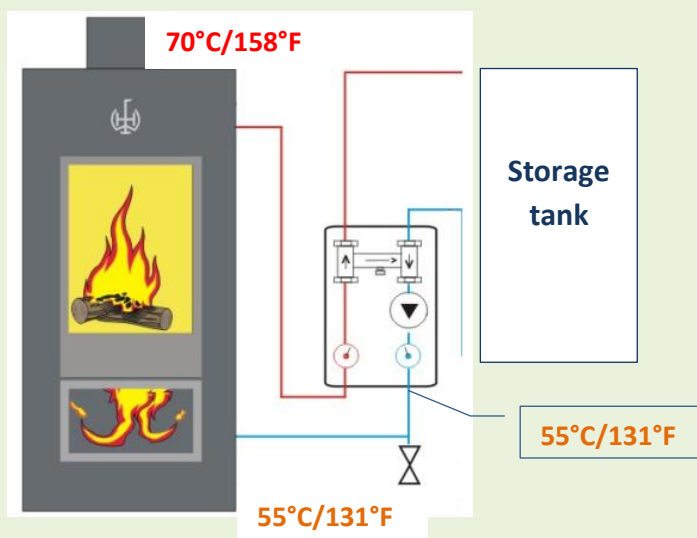


Our thermostat at the Walltherm is adjusted to 70°C/158°F.

During the heating period the thermostat starts the pump sometimes to heat the return flow.



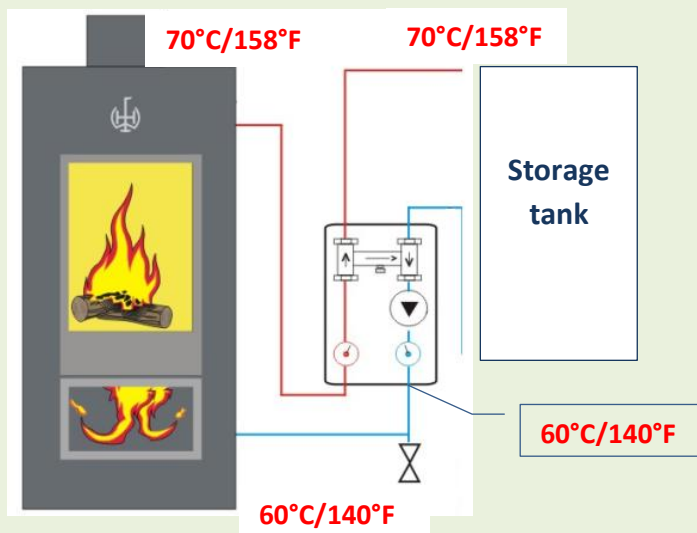
When the temperature in the stove water reaches 70°C/158°F the thermostat starts the pump of the condense protection for permanent running.



The bypass in the condense protection does not open to the storage tank until the temperature in the return reaches 60°C/140°F.



When the temperature in the return is greater or equal 60°C/140°F the tank water will be heated too



The condense protection makes sure that there is always 60°C / 140°F in the return to avoid condensate in the stove

Heat output rate

When the Walltherm is burning under full load the heat output rate is 14.9 kW/51,000 BTU.

30% to the air where it stands: $14.9 * 30\% = 4.5 \text{ kW/15,400 BTU}$

70% to the water: $14.9 * 70\% = 10.4 \text{ kW/35,600 BTU}$

What means 10.4 kW/35,600 BTU ?

With 10.4 kW/35,600 BTU you can heat ...

100 liter water from 10°C/50°F	to	100°C/212°F
or		
300 liter water from 40°C/104°F	to	70°C/158°F
or		
600 liter water from 45°C/113°F	to	60°C/140°F

in one hour !!!



Storage tank

It's recommended connecting the Walltherm to a storage tank with 1000 liter / 265 USG capacity.
We sell different kinds of storage tanks:

- Storage tanks just for space heating
- Storage tanks for space heating and a corrugated stainless steel pipe for domestic hot water

With a solar coil in the tank you will be able to collect heat from the sun over the summer having a perfect combination between wood and sun.

