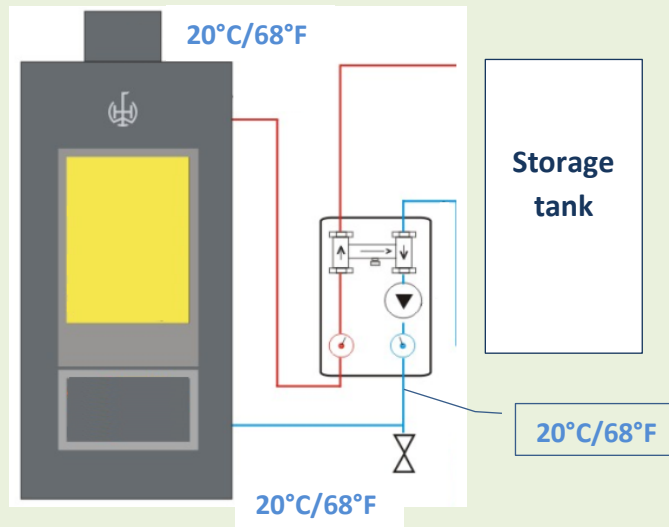


Walltherm – heat output rate and condense protection

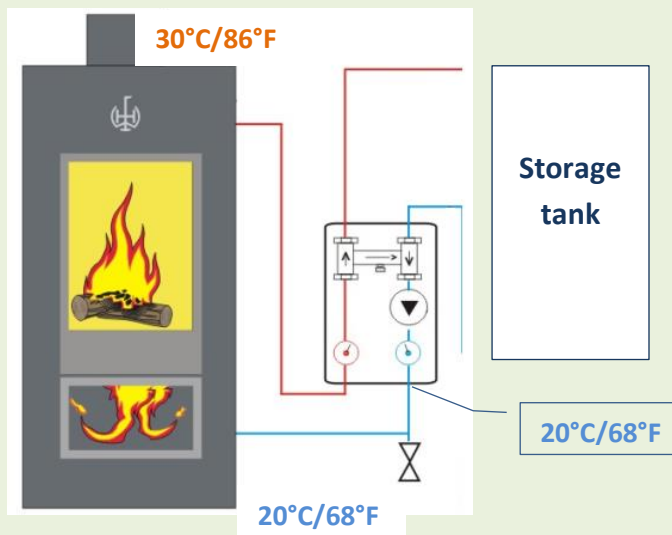
K36E – to avoid condensate in the stove

Situation: Walltherm is not burning



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

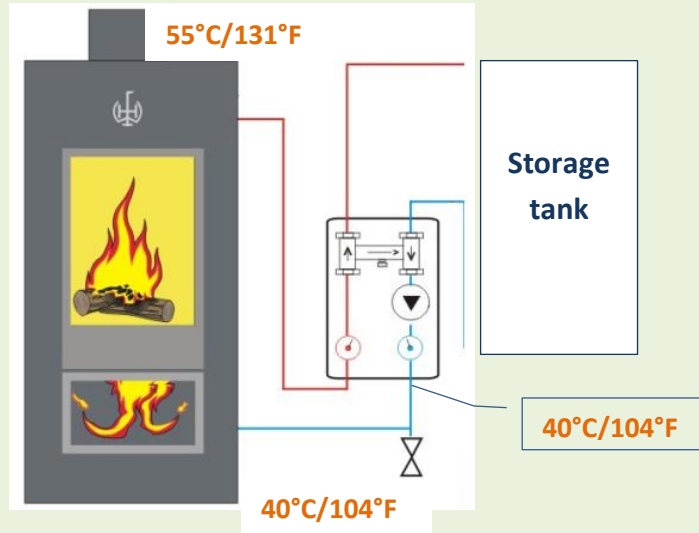
Now we start burning the stove.
The temperature in the stove will rise. There is no flow in the water jacket.



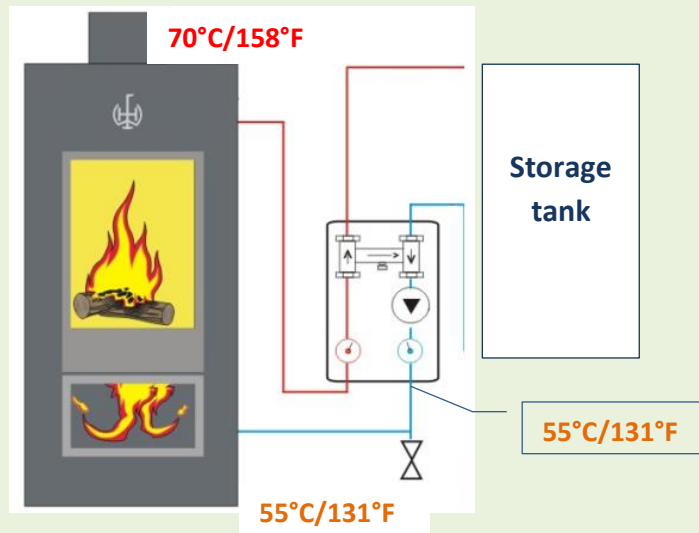
Power Strength & Energy Solutions Ltd.



Our thermostat at the Walltherm is adjusted to 70°C/158°F.
During the 'heating-up period' the thermostat starts the pump sometimes to heat the return flow.

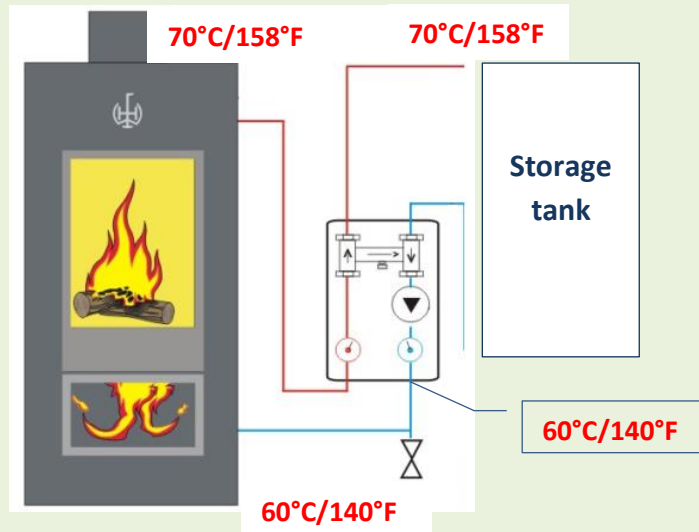


When the temperature in the water jacket reaches 70°C/158°F the thermostat starts the pump of the K36E to transfer the heat from the stove to the heating system.



The bypass in the K36E circulates the water between the K36E and the stove until the return temperature reaches 60°C/140°F.

When the temperature in the return is greater or equals 60°C/140°F the bypass opens the flow to the storage tank water/heating system



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: $14.9 * 30\% = 4.5 \text{ kW}/15,400 \text{ BTU}$
 70% to the water: $14.9 * 70\% = 10.4 \text{ kW}/35,600 \text{ BTU}$

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 to use a storage tank with 1000 liter / 265 USG capacity.

We sell different kinds of storage tanks:

- Buffer tanks just for space heating
- Combi-storage-tanks for space heating and domestic hot water (DHW)

DHW is created by a corrugated stainless steel pipe that works like a heat exchanger.

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.

