



Using radiators with wetback fires

Can a fire heat water for radiators?

Log burners are commonly available with a 'wetback' system which usually heats a hot water cylinder. In practice many people like to use this feature with a radiator to spread the heat to other parts of the house.

How many radiators can be heated?

The number of radiators you can heat depends on the heat output of the wetback and the rating of the radiators.

Each radiator is designed to give out a certain amount of heat at its working temperature. For example a double panel (type 21) radiator, 1m wide by 600mm high, gives out 1.4kW at a mean radiator temperature of 70°C.

A typical wetback only provides 2 to 4kW of heat as this is all that is needed to heat a hot water cylinder if the fire is on for 5 to 10 hours a day. The amount of heat provided by the wetback is also dependent on whether the fire is fully stoked or running at a lower output.

How does a wetback radiator system work?

Traditional wetbacks rely on thermo-siphoning to transfer the heat to a hot water cylinder so they are not dependent on electricity. This is possible with a radiator system provided the radiators are higher than the burner.

However in most cases it is better to use a circulating pump to move the hot water to the radiators which is more effective in transferring the heat and means the radiators can be further away.

Pumped Systems

Using a pump allows smaller pipes to be used which can be routed in ways that wouldn't work with a thermo-siphon.

All pipework connected to a wetback must be copper to protect against damage should the system overheat.



DeLonghi Multicolonna Radiator

The circulating pump is controlled by a thermostat attached to the flow pipe leaving the wetback. This ensures that the pump runs only when the water in the pipe is above a set temperature

When switched on the pump only uses around 50 Watts, so running costs are very low.

System control

Conventional wetback hot water systems have no form of control and are designed to boil the water in the hot water cylinder if there is excess heat.

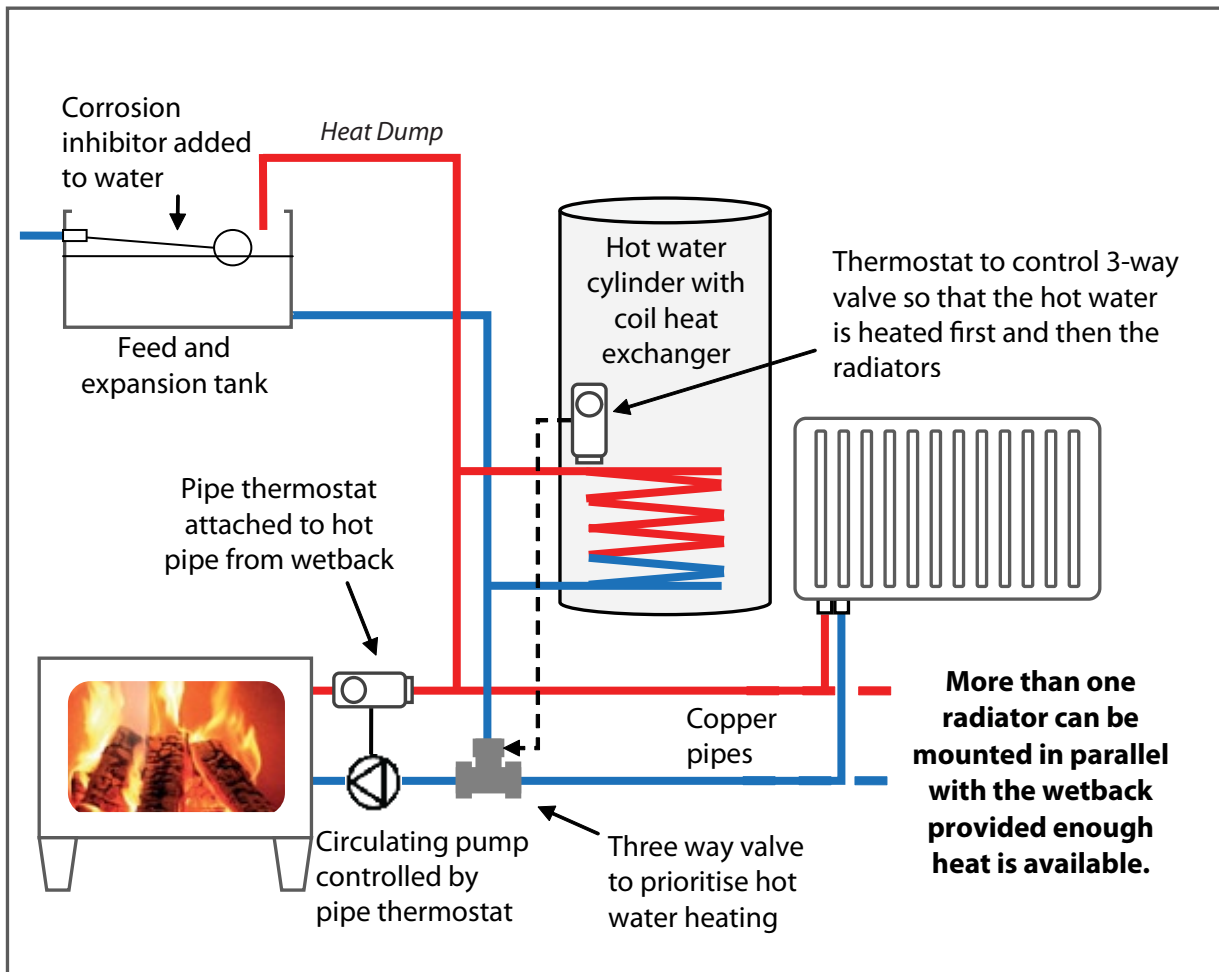
Wetback radiator systems therefore need to be able to dump heat if it gets too hot. A feed and expansion tank is normally be used for this, allowing water to boil off from the radiator circuit which is then replaced with cold water.

It is preferable that the radiator system can emit all the heat produced without boiling. In practice this means there should be no thermostatic control for the radiators.



DeLonghi Ultimate Radiator

Typical Wetback System Schematic

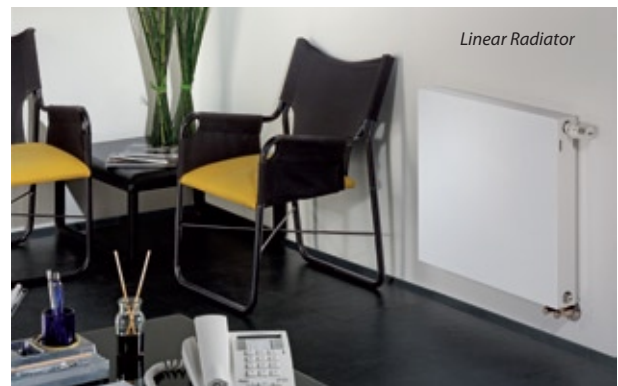


DeLonghi Radiators

Central Heating New Zealand distributes the world renowned DeLonghi steel panel radiators. Different designs from modern to classic are available to suit any architectural style. DeLonghi radiators are low volume, high surface area, very responsive, very efficient and completely silent in operation.

There are many different types of radiators, the most popular being the Ultimate Universal range. Two other styles available on order are the modern designed Linear, and for character homes there is a traditional column radiator style, the Multicolonna. Radiators can be painted to match the interior colour scheme. For new high performance homes, radiators can be factored into the design of the house to ensure the best result.

Central Heating New Zealand are also able to source radiators from other manufacturers if required via special order. Contact us for further details or to talk to us about your requirements.



Central Heating New Zealand is the country's leading hydronic heating specialist, offering a full range of heat pump and boiler radiant systems to the public and to trade customers nationwide.

Central Heating New Zealand is certified with the International Ground Sourced Heat Pump Association, and has more than 40 geothermal heating systems installed and operated across New Zealand.

For more details on this or any of our products contact us on the details below.



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