

# Electric Brewing

Presented by **Brian Pierce**

Did you know that Electric Brewing is more energy efficient than brewing with gas? The reason is the liquid gets heated directly from the inside out, rather than forcing the heat into the liquid from the outside in.

A common misconception about Electric Brewing is that the wort will somehow be scorched or caramelized by the heating element. This is not the case. As long as the element is completely submersed, it's surrounded by a cloud of vaporized water and unable to raise the temperature above a certain point.

An Electric Brewery allows you to brew indoors year round with greater control over mash temperature, and boil/evaporation rates. And when a heated re-circulation system such as RIMS (Re-circulating Infused Mash System) or HERMS (Heat Exchanging Re-circulating Mash System) is used, you will be able to step through whatever temperature rests your recipe calls for.

Electric Brewing allows you to more easily repeat a previous brew session due to its increased temperature control.

<https://brewmagic.com/products/brewing-systems/rims-wizard-system>

The RIMS Wizard by SABCO is a nice (although a little over priced) example of a turn key electric system that can be added to an existing mash setup and run on a standard 20 amp 110 volt home outlet.

<http://www.highgravitybrew.com/productcart/pc/Electric-Kettle-Controller-269p3084.htm>

The Electric Kettle Controller by High Gravity offers control of a 220 volt (up to 6000 watt) heating element with infinite power control (to help set boil rate).

[http://www.brewmation.com/5\\_5K\\_Heating.html](http://www.brewmation.com/5_5K_Heating.html)

This 5.5KW ½ Barrel Heating System/Control Panel by Brewmation is a complete system (less the vessels).

Or for the Do-It-Yourselfers, these sites offer detailed build instructions with pictures, parts lists, and links to purchase components.

<http://www.theelectricbrewery.com/>

<http://www.instructables.com/id/electric-brewing-system/>

Some other good sites for parts;

<http://www.brewershardware.com/>

<http://www.ebrewsupply.com/>

<https://www.oscsys.com/>

Most electric brew systems will require a 220 volt outlet. A cloths dryer outlet can provide 30 amps for a single 5500 watt element, while a stove outlet can handle 50 amps for (2) 4500 watt elements.

A 5500 watt heating element can raise the temperature of 1 gallon of water by 1 degree Fahrenheit in approximately 1.6 seconds. 9000 watt (two 4500 watt elements) reduces this time to 1.0 second.

Be sure that whatever electric setup you choose, you are protected from mishaps by using a ground fault circuit interrupter or GFCI.



Brian's original "Hillbilly HERMS" electric brewery