

Cell Configurator Instructions

This tool runs in Microsoft Office Excell and in OpenOffice Calculator. OpenOffice is a free download at <http://openoffice.org>. Coming Soon - look for this to run as a Windows Program. It is under development.

Red Numbers are the only fields you change. If you make a mistake and do change a **Blue Number**, you will likely have to close the program, do not save changes, and re-open the program. If you don't you will loose the formulas that make the Blue Number calculations. If you screw it up royally, just download another copy of the tool.

1. Enter your Operating Voltage: That would be the source of power the cell will run on. If it is your battery, enter the battery voltage. If it is your vehicles Alternator, measure the voltage while the engine is running at or near your normal driving RPM's, and enter that. If you are powering the cell from an AC source that is being changed to DC voltage, enter that DC voltage; example, 120 vdc, 240 vdc.

2. Enter the Number of Plates: That would be the number of plates you are planning to use in a single Stack. A stack is + -

A stack is also +nnn-. You can come back and change this field at any time.

3. Click Calculate: Anytime you click any of the Calculate Buttons, any changes you made will be updated. It makes no difference which one you click; they all do the same thing. They are positioned in multiple places just for convenience.

4. Voltage Per Water Cell: Now you should have the # of Water Cells populated. It will be 1 less than the number of plates. You should also have the Volts Per Water Cell. Changing the Operating Voltage and or the Number of Plates, will change the Volts Per Water Cell. It is this voltage that is so critical to efficient HHO production. I recommend using 2 volts to 2.5 volts; a little more, a little less.

5. Number of Stacks: This is very important. This number causes some of the Amperage fields to populate. They in turn populate the Liters Per Minute fields. If you have two stacks, +nnn-nnn+ , the configurator will multiply by 2, the figures in Total Amps, Liters Per Minute, and Watts. Adding Stacks increases the multiplier number. If you are configuring a Parallel Cell, +-+--+-, Number of Plates in this example would be 2, Number of Stacks would be 4. It works; play with it.

6. Active Plate Length and Width: Use this field if you have square gaskets. You should enter the dimensions of the inside of the gasket. These 2 fields establish the Optimal Operating Amperage, based on square inches of a single set of plates. Optimal Amperage is the Maximum amperage you want to run this cell at, without introducing excess heat. Changing the value of these fields does not, I repeat, does not change the Liter Per Minute output. LPM is calculated by the Operating Amperage, # of Water Cells, and Stacks.

7. Active Round Gasket ID: Use this field if your gaskets are round. The Inside Diameter of the gasket establishes the square inches of surface area.... so that Optimal Amperage can be calculated. That is all it is used for. It does not affect LPM.

8. Operating Amps Per Stack: This is an important field. Your cell is not going to produce anything until put something in this field. LPM gets its figures from this field, so does Watts. The Optimal Amps Per Stack field establishes the maximum efficiency amperage, but the Operating Amps Per Stack adjusts the LPM and Watts.

9. Total Amps: This field gets populated by the Operating Amps Per Stack. The Total changes as you change the number of stacks. It is interesting to see how adding Stacks, increases amperage demand from the charging system. It is also interesting to see how it affects LPM and Watts.

10. Centimeters: I have also added a few convenience fields. for calculating Centimeter. As the Inch fields are changed, the Centimeters get populated.

11. HHO Amounts: With the introduction of Separation Cells, we now need a method of determining how much of the HHO is Hydrogen and How much is Oxygen. I think this will help.

 "Click"

Download the Configurator

If you need more assistance, email me at david@hho4free.com