

# H<sub>2</sub>green

Is a cost effective fuel enhancement device, that works on a simple principle, that the most readily available source of hydrogen (The actual part of any fuel that burns) is water. Examples of the hydrogen content of fuels are as follows. (gasoline's base fuel is C<sub>8</sub>H<sub>18</sub> isooctane and a blend of of other chemicals, which partially split through heat and combustion.) (Diesel fuel's, main component is n-hexadecane or cetane with other chemicals blended) (Water's fuel is simply H<sub>2</sub> with one oxygen atom. Unfortunately it cannot be burnt in its molecular form though heat and combustion, the hydrogen and oxygen can only be split through electrolytic reaction.) The actual byproduct, of burning hydrogen with oxygen as the catalyst, is water. In essence we split the water apart and then put it back together again.

The problem with hydrocarbon fuels, is those nasty carbon atoms like to make harmful chemicals such as carbon monoxide and because carbon likes to bind with other atoms, It does not completely burn. By adding hydrogen and oxygen, to the intake, it purifies the combustion and adds a free radical oxygen atom which will try to oxidize or destroy some of the harmful chemicals left over. In essence, you are increasing the amount of the burnable part of the fuel, burning more of the non fuel components with the increased combustion and oxidizing or destroying more of the harmful, byproduct chemicals.

## So why not just burn hydrogen?

People all over the world are working on a way to carry compressed or liquid hydrogen, safely in vehicles. They are making great strides to make it a reality, that one day you will fuel up with hydrogen and the only byproduct of the combustion process will be water. The problem is that compressed or liquid hydrogen, is a lot more volatile than a fuel such as propane or methane, so until they find a way to safely transport large enough volumes of hydrogen, we can make small amounts as we drive. Using a hydrogen generator such as the H<sub>2</sub>green, we create a supplementary amount of hydrogen from water.

## If hydrogen is dangerous to transport, is a hydrogen generator safe?

The answer to that is, some are and some are not. As we have looked at other systems in an attempt to provide you with the safest, most reliable and cost effective product possible, we found a good number of 'kits' and plans. We tested several kits and found they produced so little, they were useless where as others that had good production were made of materials that overheated, melted and yes even minor explosions occurred. Most of the plans that could be made with inexpensive materials, were dangerous or ineffective. There were a couple of sets of plans that were available for purchase, That were involved and quite expensive for materials that worked properly and had thought out some of the safety issues. The H<sub>2</sub>green, has been built with safety and reliability in mind. We have researched, developed and tested our safety systems to exhaustive levels and we guarantee that if properly maintained it is safe.

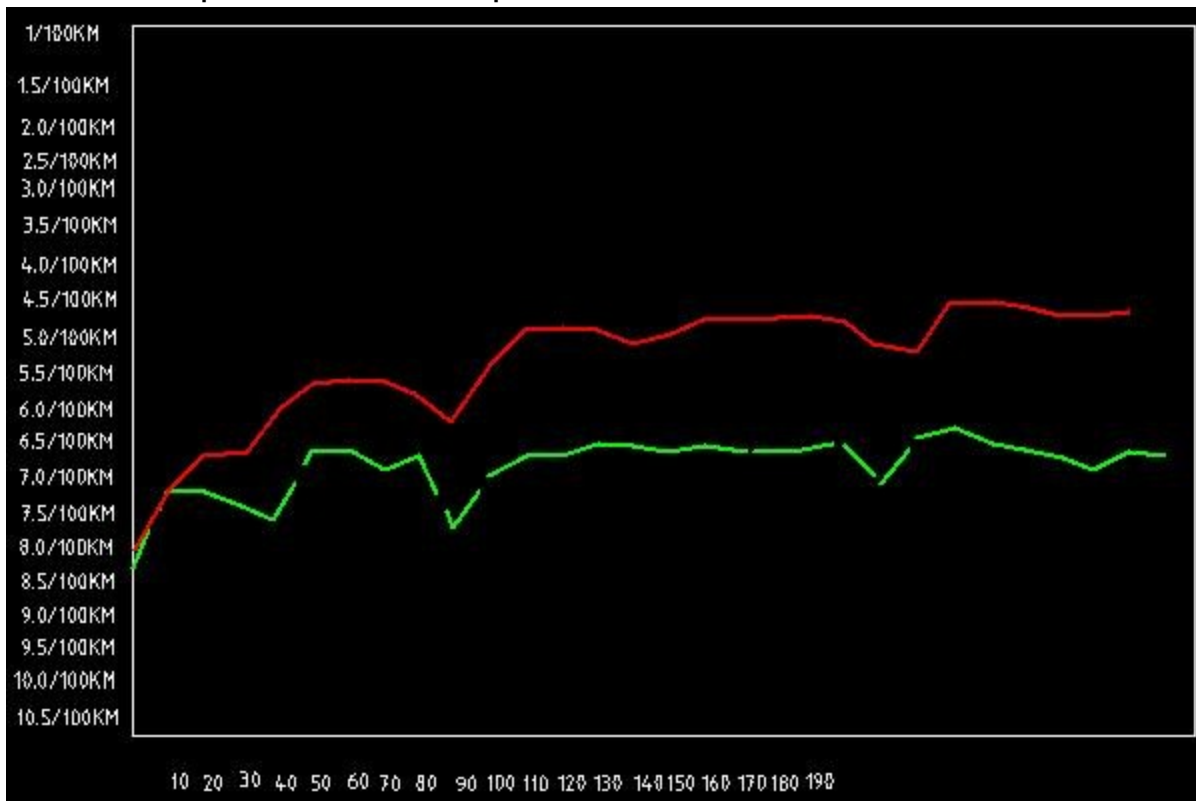
## What kind of fuel savings can I expect?

There is no simple answer to that, depending on driving habits, size of engine, efficiency of the engine to begin with

and the gross vehicle weight, it varies. We cannot give a valid catch all percentage, but we will give you real comparative data. Here is what we know. We know, that until the generator reaches operating temperature, it will not produce a significant change in mileage. We know, that if it exceeds its maximum temperature, its effectiveness is reduced. We know that if you use the proper solution of electrolyte, for your driving conditions, our generator works well with good hydrogen production, does not overheat and will not exceed the preset amperage. In the 5.7 litre, hemi engine, in a half ton 4X4, we saw overall a 20+% increase in fuel mileage highway, and 14% city. In a 2.3 litre engine in a mid sized sedan we have an actual return trip, highway driving, with and without the generator.

This graph is based on Fords own computer and is displayed through two screen shots overlaid, the green line is representative of fuel economy at the prescribed speed limit, regular unleaded gasoline, between 18 and 22°C. The red line indicates almost identical driving conditions, regular unleaded gasoline from the same service station, running with the H<sub>2</sub>green.

It is measured in litres per 100 Km in ten minute polls.



In the future we will attempt to get more real time data as it relates to more general driving conditions.

For heavier vehicles or statically placed engines, the generators can be assembled in series. The gains desired are more a question of space, available power and in most circumstances, the minimum RPM that the idles at. We do have an electronics package in testing now to exceed the idle circuit on demand, as well we have full cooling systems available for maintaining optimal temperatures, to squeeze the maximum performance from the generator.