



Part II

The Water Dragon

Ir Caspar L.P.M. Pompe MsCE
Watergas.NU Foundation

Overasselt, the Netherlands
151115



For me it feels special that I was born a dragon. If you have a drop of Chinese blood in your veins, you'll find such things interesting. In China, the dragon is the symbol of the Emperor, so it is much loved to bring your child as a dragon in the world. Every twelve years a small baby boom overthere. It seems that many dragons have certain traits in common. In any case, it is true that I am very passionate. Every sixty years, the dragon stands in the element water. Also in 1952. So I feel like a water dragon. Passionate in the field of water and energy. Passionate by the realization that water is the fuel of the future.

What's up with that? You can split water using conventional electrolysis. Faraday can tell us exactly how much energy it takes: two electrons per water molecule. You can then compress Hydrogen and oxygen from the water into a pressure tank. Takes a lot of energy. But then you have some. Thus the Orion Rocket speeds on water to the moon. In this case, water, however, is not a source of energy, but an energy carrier.

1

Another way to split water is to shake the water molecule back and forth hard during the electrolysis process. This is possible by using a pulsating direct current. This is the way "watergas" is produced. Watergas is 'gas from water.' It has special properties. The efficiency of this type of electrolysis is about 100%. Watergas is located in the transition zone between carrier of energy and source of energy. We actually consider Watergas (keyword "HHO" on the Internet) to be a separate appearance of water, besides ice, liquid and steam.

The vibration of the water molecule is intensifying as water becomes very hot and turns into steam. Above 3000 °C steam falls apart into a plasma state. This process takes place in a Plasma torch. During the last decades Pyrolysis with plasmatrons is on the rise. Other propellants are used for the process as well. A large oxygen-plasmatron is being built in Teesside Valley. The installation gasifies municipal waste to generate energy with the produced syngas. All kinds of materials are gasified into syngas, other gases and slag.



For example, one ton of fertilizer and one megawatt of electricity produces syngas. Fed into a CHP the syngas supplies about two megawatts of electricity, half a megawatt of steam and about three megawatts of hot water. So, this is a circular process.

The logo of the Russian company Plazarium, which makes water-plasmatrons is a fire-breathing dragon! Water-waste pyrolysis does not have to be dried, and produces only 1% of residue, according to Plazarium. The plasmatron, as made by Plazarium is invented by Andrija Puharich. Never become popular. And that is not right. Because if you're going to calculate what about the energy IN and OUT - neatly conform our long-standing rules of physics for heating of water - then you'll just fall off your seat (as we use to say in Dutch)!

The plasmatron that I use has a small capacity of .well ... how much? I pour water in and turn on the power. At first the device consumes about $300 \times 8 = 2400$ watts of electricity. Still only small droplets drip from the nozzle. With a microwave, the water is heated to supercritical steam. Then the device begins to sputter. Steam splits into hydrogen and oxygen (thermolysis). Suddenly there is a pointed flame torch from the nozzle! The input voltage drops to 30 volts. But can you melt tungsten a stick - a valve lifter with only $30 \times 8 = 240$ Watt -? No, not likely.

2

Is my calculation sound? The plasma torch has an output of approximately 2.2 kilowatts. What is happening? In the microwave-part of my mini-plasmatron the water is converted into supercritical steam, hydrogen and oxygen. Eureka! In the small space in the nozzle where the arc between anode and cathode occurs, it is very hot. A charged plasma gas is created. The plasma offers less resistance. So you need less energy for the process. If this plasma ignites (back to water!) you will harvest just over one and a half kilowatts water energy. That is where you can melt tungsten with!

Therefore now Water is a source of energy, a fuel!

Incineration has three conditions: fuel, oxygen and heat. Heat vibrates the molecules of the fuel apart. The atoms recombine with oxygen to form water, (CO₂), and other substances. The combustion process produces more thermal energy than needed for start-up thereof.