



# 1. INTRODUCTION

## 1.1 Viktor Schauberger – NATURE IS MY TEACHER



**Viktor Schauberger**

In order to understand the importance of such a device not only for our lives but also for the benefit of the environment, we have to know a few things about the founder of this concept and his contributions to modern technology. The Schauberger device is the real proof that an equilibrium between man and nature is not only a way of preserving nature but also a real financial advantage for everyone who is brave enough to give it a try.

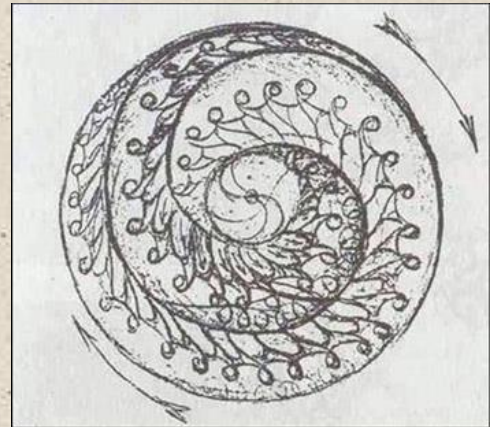
Viktor Schauberger, born in 1885 somewhere in Austria, made an important contribution to the knowledge of the natural world. After spending most of his life in the middle of the Alpine nature “observing and copying nature”, as his motto was, Schauberger managed to apply what we today call the **quantum energy effects of water**.

Despite the general belief that a genius must have, certainly, studied for years in famous schools, Viktor Schauberger showed us the opposite. Without any kind of education, whatsoever, Schauberger relied on his intuition and fabulous ability to observe nature and imitate its functionality.

All the destructive energy devices of that time impelled him to search for the most convenient ways of producing energy without harming the environment. What scientists today call eco-friendly technology, Schauberger was already implementing more than 200 years ago. More exactly, his main purpose was to help people release themselves from the energetic slavery that was also destructive for the environment.

He made his entry by helping the Timber department he was working for to improve their transportation of logs from the forest using the streams or the so called spiral flow. He built water shuts and put in wooden slats to spiral the water flow in a manner similar to a rifle bore.

Around 1929 he began patenting his discoveries regarding the **use of water in agricultural techniques and energy field**. Most of his inventions had to do with water and this is the reason why he was given the nickname “water wizard”.



The water turbine meant to produce hydroelectricity is one of his first inventions and further on between 1930 and 1932 he continued his research and attained absolute success with his Water Capillary Research used to produce electrical energy directly from water. The production of Pure Water, the air turbine or the warmth-cold machine built for Siemens made him famous throughout the country.

His expertise soon reached even the ears of the German Reich who became very interested in his knowledge and abilities to sustain Germany's war projects. Although Hitler himself who is told to have been extremely excited about it offered him to join the team of German scientists, Schauburger politely refused the proposal. The main cause of the refusal was due to the fact that he did not share the same ideas as most of the Germans and Austrians from that time.

Because of his refusal, Schauburger was confined in a mental hospital, but he was actually forced to work for the Reich on engine cooling systems. During this time he also collaborated with Heinkel about aircraft engines. As a result, in 1944 Schauburger developed an improved Repulsine and a submarine engine for Germany's war effort. After the war, Viktor Schauburger began his research

on vortex technology using the principle of water implosion, which is a life forming energetic process and invented waterpower turbines.

He later started his in alliance with Rosenberger company and focused his research to increase soil fertility and agricultural production. He discovered that copper is a naturally available healthy base material. The fine copper parts have a favorable impact on the water supply and work with it to provide the pre-conditions for strong vegetation.

In the next years he spent most of his time cooperating with different companies and even managed to publish his book "Implosion statt Explosion" ("Implosion instead of Explosion"). The Implosion machine has drawn the American's attention and Schauburger was soon invited to the U.S. as anti-nuclearists had taken his work as an alternative source of power. His documents, models and equipment were also dispatched to the USA. Schauburger had been tricked to sign a contract that included a statement, which precluded any of Viktor Schauburger's work being passed to American scientists.

The unpleasant experience and visit in America determined him to lose his will and, unfortunately, in 1958, at the age of seventy-three, Viktor Schauburger died in Linz, Austria.

His son, Walter Schauburger, has promoted Viktor's work through the Biotechnical Academy, which raises finances through increased interest in the courses and workshops they can provide. Moreover, in the last 30-40 years the interest and the experimental application of Viktor's work have continued to develop.

His knowledge and principles will linger years to come. Schauburger's principles are basic for several practical uses nowadays such as:

- drinking water and process water
- river engineering and flood protection
- agriculture and forestry

Despite the fact that most of us live our lives detached from nature, not even knowing the numberless benefits and extraordinary possibilities that lie beneath our eyes, there are people who share and promote Schauberger's ideas and principles and, at the same time, appreciate his greatness and important contribution to modern technology.

## **1.2 Schauberger Generator – Means of operation**

World War II is surely one of the greatest tragedies of human history. Beyond physical destruction and enormous loss of life, this period was extremely vivid in terms of innovations and avant-garde projects. Aware that superior technique and organization can overcome numerical deficiency of his armies, Hitler was surrounded by top specialists in all fields: physics, chemistry, mechanical engineering, biology, psychology.

They have been disgraced due to association with Hitler or simply ignored and although we only read about them on obscure websites, they have established projects (not few of them controversial) that today, unconsciously, we encounter everywhere. Sitting in the shadows of leaders like Von Braun and Keitel, put to silence by Nazi propaganda or sometimes because of their somehow extremist views, people like Hans Kohler, Karl Schappeller, Otto Schuman, Rudolf Schriever Flugkreisel and many others have left the world an important legacy of inventions and principles that we find today in various fields.

One of the areas where they have claimed their names was that of creating energy by exploiting the interaction of different magnetic fields. Because the laws of physics are universal and because knowledge was the same, led by names like Tesla, Edison or Newton, many of the projects seemed similar. Indeed, principles are the same, but the means of operation is different. This gives these projects authenticity and at the same time, differentiates them by the way each of their inventors understood and put to practice the existing principles.

The fact that these projects were created at different times, in different locations by different people demonstrates once again that their efforts had reason to converge. And this was a very well founded reason: because it can be done.

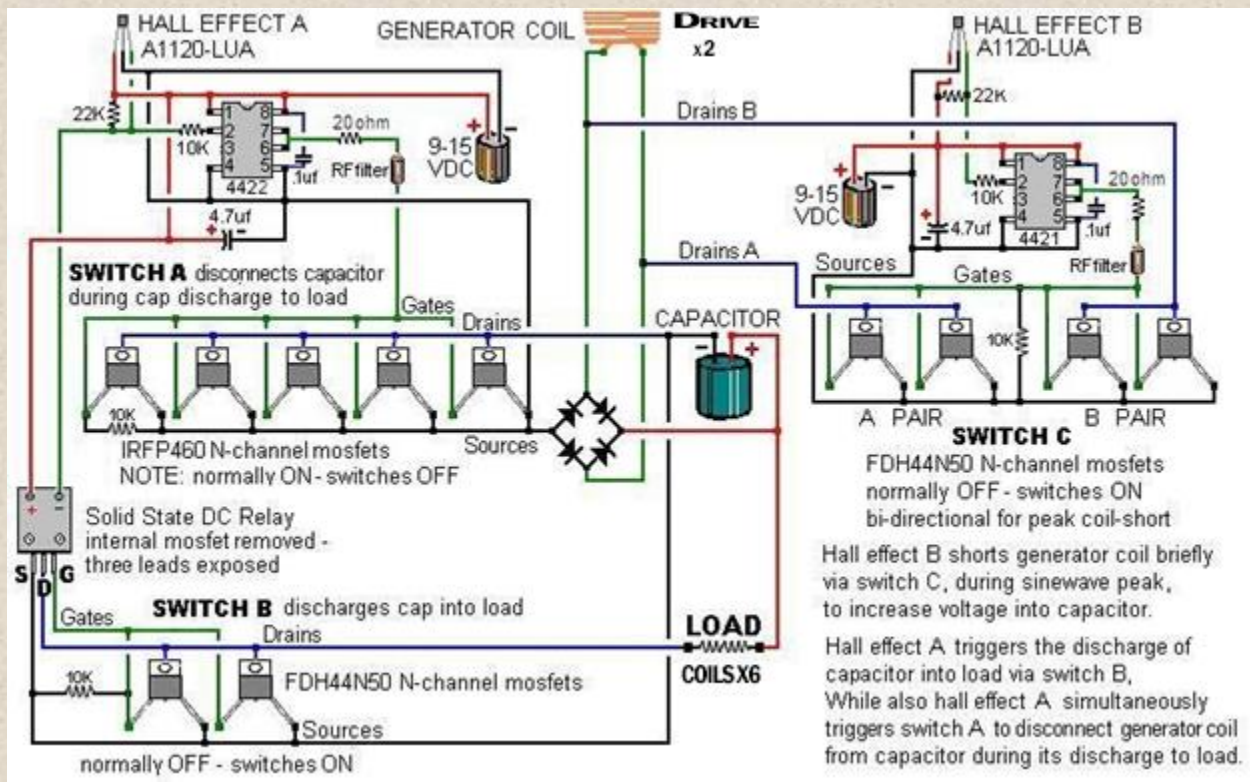
Be it Magnetstromapparat devised by German naval engineer and inventor Hans Kohler, Schappeller's principle of "glowing magnetism" then turned into a small generator or Schauberger's electrical generator, the following principle applies: electric current creates a magnetic field - the magnetic field generated motion. Each approach is a unique demonstration of how each of the inventors understood nature and its laws. Maybe that is why Schauberger project is so elegant and simple at the same time.

After a lifetime dedicated to the observation and study of nature (water, wind), after working in all of that time's areas of interest (engineering, aeronautics, hydranautics), Schauberger made proof that the energy field is one of his greatest assets as well.

Returning to our generator, it is based on the following principles (derived from the Tesla's principle): the magnetic field generated by a group of controlled and temporized coils can set a rotor in motion and this motion can then be used as source for an alternator. Without going into scientific details, we offer you a product, as simple as it is effective: a group of diodes generates a magnetic field using a control board.

The magnetic field is transferred to the magnets on a rotor creating rotational motion, which in turn engages an alternator which produces electricity. In short, these are the components of our generator, as units.

Here's a diagram of the generator:



The diagram it's only for one drive coil, and we used in the current project two drive coils.

### 1.3 Applications

Schauberger Generator can be used as a power generator (to power a house), a portable generator (the perfect replacement for the old gasoline/diesel generators) or it can charge a group of batteries (which were discharged for later use).

### 1.4 Advantages

This generator is constructed of lightweight but solid materials and it requires extremely small circuits in size and cost. It is also the perfect choice for a cleaner and healthier future for our children, since it doesn't involve any smoke or noise.

The low cost, the light weight, no noise and no pollution make this generator a strong competitor for any large scale device currently known.

## **2. TOOLS AND MATERIALS**

### **2.1 List of tools**

- a. Fixed isolated screwdrivers set
- b. Magnetic head screwdrivers set
- c. Wire strip pliers
- d. Cutter
- e. Scissors
- f. Small beaked pliers
- g. Normal pliers
- h. Drill
- i. Drill bits set
- j. Adjustable wrench
- k. Fixed wrenches
- l. Caliper, ruler, protractor
- m. Measuring Device
- n. Electrical cables of different colors

### **2.2 List of materials**

- a. Two-component adhesive
- b. Insulating Tape



- c. Zip Ties
- d. Long bolts for fixing 8-10 pcs
- e. Short bolts, filed washers
- f. A piece of rubber for electrical isolation
- g. Marker
- h. 500m copper wire for AWG winding
- i. Alternator 1 piece
- j. Switcher 1 piece
- k. Neodymium magnet 12 pcs
- l. Axle bearings 12 pcs
- m. Hamlin 55140 magnetic sensors 2 pcs
- n. Cable lugs
- o. Extension cords 8 pcs
- p. batteries 12v 1 pcs
- q. Control board MMG-041 1 pcs
- r. Coils 8 pcs
- s. Magnetic core 8 pcs
- t. Plexiglass (textolite/wood) cut in different sizes and shapes to sustain various components
  - Cylinder - 3 cm thickness 1 pcs (it will be cut in 6 pcs x 5mm)
  - 5 x 5 cm frames (used for supporting the coils) - 8 pcs
  - Smooth edges - 2 pcs

- Test board - 6 bulbs connected in series, bulb switch, plug, plug switch, cables

Please notice there are no other connections hidden on the other side.

### 3. MODULES

#### **a. Coil Construction**

We will start by winding the copper wire on the plastic pad, leaving one end for subsequent couplings. At this point, we will make sure that spires to be positioned next to each other, avoiding blanks.

Tip: To avoid slipping wire, you can fix it with a piece of duct tape.

Make sure the spires are nicely arranged. About 300 spires are needed.

Eventually, the remaining end will be arranged in the opposite edge of the first, for easier tracking during connection.

You can isolate with duct tape and then the loose ends will be stripped using a cutter.

We will attach cables of different colors (in this case, black for the ending point and brown for the starting point), then isolate the connections and position them as shown in the picture for ease of connectivity.

We will then prepare the two-component adhesive that will fix the magnetic core inside the plastic tube on which we have wound the copper wire. It needs about 15 minutes to dry. For efficiency, we have already built the other seven coils using the exact same method.

#### **b. Construction of the rotor**

Because we need a support of about 3 cm, we will assemble the six pieces of Plexiglas used in this case, in one single disc to avoid unnecessary friction.

In the present project, we are using Plexiglas for better visibility, for transparency and in the end for less weight.

We will utilize a longer bolt in order to have a fixed support and to subsequently tighten the nut for stiffening and hardening.

For this purpose, we will need the two component adhesive again, to point apply on the surface of the discs. We will enlarge this surface by rotating the discs, as shown in the picture.

**Caution:** Do not prepare a large amount of adhesive because it is likely to harden and become unusable.

We will repeat the process until we have added all discs.

**Caution:** Do not over tighten the bolt or you'll crack the Plexiglas (risk disappears if you use a version of textolite or wood with the specified size).

After fastening and drying (around 15 min) of adhesive, we will remove the rotor from support.

Then, using a ruler, we'll draw a diameter as shown in the picture.

Then draw another diameter at 90 degrees. Then, using a protractor, we will halve to 45 degrees the already marked sectors.

Next, we need to fasten the neodymium magnets on the disc we obtained. Because there have holes, they can be fixed by screwing in wood or textolite. In this case, we will use the two-component adhesive again.

The magnets will be marked north (N) and fixed with the middle on each axis direction.

In the end, the disc will have the magnets mounted as shown in the image. This requires drying time, which is why we recommend you stick them one at a time.

### **c. The supports for coils**

These will be fixed as shown in the picture on each of the pieces cut in a square with the two-component adhesive. It will allow for drying and curing.

Make sure the wires are positioned on one side of the square. The side on which we will stick the plastic brackets will be the one where we left the cables for subsequent connections.

We proceed analogously for all coils.

### **d. Connectors assembly**

They will be mounted above the plastic bracket as shown in the picture. The connection bridges will be placed on the direction of the connectors.

Subsequently, the free ends will be introduced in two of the four couplings. The same coupling rule will be followed for easy connectivity later.

We'll do the same for all 8 coils.

## **4. MOUNTING DEVICE**

### **a. Rotor assembly**

We will use one of the longer bolts as a pin.

Then, we will put one of the bearings and fix it with a bolt. Next, we'll add another bolt (which then we can use for disc adjustment) to create the constraining effect. Then we'll add a washer...disc, a new washer ... bolt ... and fasten the disc between the two bolts. Then add the second bearing and fasten it with a bolt.

The disc must run easily without friction on the two bearings.

## **b. Bracket support assembly**

We will now take a Plexiglas side, drill a central hole in which we'll put the bearing and small side holes that will ensure fixation.

We will use long bolts with washers and nuts as shown in the image. Don't over tighten the bolts, to avoid cracking the material. We will ensure that they are properly tightened to have the best possible overall reinforcement.

Next, we will introduce the rotor shaft mounted above.

Next to each magnet, we will fix the bracket supports so that the distance from the center of the coil to the magnet to be 3 mm. Using the caliper to do the measurements, we will make sure that the distances are correct. In this case, the attachment will be made using the adhesive again. If you use textolite or wood, you can utilize L-sites, screws or other fasteners.

You can also mark the support spot for the coils, so you don't have to repeat the measurements.

The adhesive's purpose is to fix the brackets, hardening being achieved with the other side.

If, when fixing with adhesive, the coils will move, we'll repeat the measurements after each fastening. It is the smoothest part of the assembly that requires skill and patience.

After drying, you'll see the final arrangement of the coils. Our generator is already beginning to come alive.

We now need to add the other side to the assembly. During drying of the adhesive, on fastening the coils, you can see we have placed 4 bolts into the holes near the central axis. This side part will be put down easily, inside the holes, without excessive pressure to prevent damage to the Plexiglas.

Analogous to the first, we will fix the fastening bolts using the washer and nut system. A spacer under the top side will leave the rotor shaft free. Now stiffen slightly.

Then we mount the switch and fasten small bolts for the alternator.

### **c. Mounting the control and recovery board**

First, we need to determine the place where our board will be located. Then, we'll mark the spot and drill the proper holes, pressing slightly not to crack the support.

Also make sure the holes do not pierce the coils, so avoid drilling towards the coils. The spacing will be done using bolts.

In this case, we will only need 3 bolts, as it is not required to support heavy weight.

We will use fine-tipped pliers for fixing bolts. So this is how we mount the control board.

### **d. Coils connection**

Two of the eight coils, which are called control coils, will link directly to the control board and the other will be connected in series.

We are using cables of variable length, so that they reach up the control board.

At the end where we have the board, we will use connectivity lugs. The cables are plugged into the connector on the coil, according to the color code, as they represent the extension of the coils' ends: brown to brown, black to black.

Brown wires will come outside the control board at each end of it.

Control coils are connected directly to the board, each on the control board's ends, as shown in the picture.

The coils connected in series will be joined together like this: the remaining pins from the connectors on the coils are joined to each other with wires of the same color.

We'll then repeat the procedure, noting that control coils will be "left out" from the series connection.

The end of this series connection will be linked with lugs on the 3, 4 pins of the control board as shown in the picture.

Care must be taken when pins are connected to the control board, so they do not touch each other. You can use duct tape to prevent this from happening.

Recap: The control coils that you see here will be directly connected to the pins outside the MMG-041 board. The remaining coils are connected in series and the end of the series will also be connected to the control board.

### **e. Fastening the 55140 Hamlin magnetic sensors**

At a distance of about 3 cm from the edge, we will mount the neodymium magnets (which control the magnetic sensors) on the rotor.

General Summary:

So, on one lateral side we placed the coils. Two of them are control coils, connected to the pins outside the control board and the rest are connected in series and to pins 3, 4. On the other side of the plexiglass support we mounted the control board.

After mounting the magnets on the axles, we have also placed on one side of the rotor, the magnets necessary for the magnetic impulse, controlled by the board, on about 3 cm from the edge.

The other plexiglass support contains the switch and the alternator.

The pins made of short bolts are for:

- Powering the 12V battery – the left image

- Output of the alternator, where we get the 110V – the right image

## **f. Generator assembly**

It is time for the finishing touch and connection of the assemblies obtained so far.

We will use two batteries as spacers, not to disturb the central axis of the rotor.

First fix the rotor position.

Then cover with the other support, slightly tightening the entire assembly with the bolts.

From the 12V pins of the battery, we connect to the motherboard in pins 6, 7. The positive uses the red color and the negative uses the blue color.

Following is the coupling of magnetic sensors with adhesive. We will check both the distance of the cables that reach the control board, as well as their location from the magnets mounted on the lateral side of the rotor.

When the magnet passes next to the sensor, you will hear a smooth click.

Later, after drying, the sensors will be connected to the control board.

Meanwhile, we can adjust the rotor shaft and couple the alternator to the switch of the device.

We'll show you how they are coupled, previously isolating the ends to avoid short circuits between the pins of the control board. The positive is represented by the green (with red lug end), and the negative is represented by the black wire (blue lug end).

Therefore we obtained the couplings where we have:

1. Control coils - pins 1, 2 (top-down) and pins 11, 12.
2. Coils in series - pins 3, 4.
3. Magnetic sensor Nr.1 - pins 5, 8.



4. Magnetic sensor No.2 - pins 9, 10.
5. 12v Battery – pins 6, 7.

As we were saying, on the opposite side, we connected the alternator to the switch, and the switch to the 12V power supply as shown in the image.

The last stage of our project is using zip ties for reinforcing and proper fastening of the existing cables. We aim to have the best possible ergonomics of the assembly, so that in the end we can easily distinguish all the building units, connectivity as well as functionality of the generator without any accidental friction.

We will conduct a brief inspection at the pin connection wires.

And here we are and at the end of our project.

We will mount the 12V battery to the pins indicated on the front panel, respecting the positive to positive and negative to negative rule.

Also, the test panel (consisting of 6 bulbs and sockets) will be connected at this stage.

We are working with HIGH VOLTAGE, so make sure:

- The switch is off (in this case, down)
- The wiring connections are properly insulated

Interacting with the 110V must be done with extreme caution, as there is risk of electric shock.

Also avoid touching bolts that connect to 110V, sufficient reason for applying an insulating layer of duct tape.

## 5. TEST

The last connections were the 12V battery to the pins on the front panel and the test panel with 6 bulbs and socket (on which we hooked a measuring device).

Say START. Note that it starts working. After about 5 seconds needed for the rotation speed to stabilize, we can start the test panel for the 6 bulbs. As you can see, they are working properly.

Then you can also power the plug using the switch, to certify those 110V of the plug. Deviation from the 107V display is allowed.

Thank you for joining us.

## 6. USEFUL SITES FOR COMPONENTS

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

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

<http://www.keltechplastics.com/index.html>

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

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

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

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

<http://www.mcmaster.com/#>

[http://www.radioshack.com/product/index.jsp?productId=2049723&locale=en\\_US](http://www.radioshack.com/product/index.jsp?productId=2049723&locale=en_US)

<http://www.ebay.com/itm/12V-14V-10A-Pulse-Width-Modulation-PWM-DC-Motor-Speed-Control-Switch-/271218590923>

<http://apexmagnets.com/>

[http://www.iron-powder.com/Iron\\_Powder\\_for\\_Soft\\_Magnetic\\_Products.asp](http://www.iron-powder.com/Iron_Powder_for_Soft_Magnetic_Products.asp)

<http://www.batcap.net/>

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

<http://wires.co.uk/>

<http://www.maplin.co.uk/>

<http://www.micrometals.com/pcparts/torcore7.html>

<http://store.arduino.cc/ww/index.php>

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

<http://www.technobotsonline.com/bearings/miniature-bearings.html>

<http://www.first4magnets.com/>

<http://www.maxonmotorusa.com/maxon/view/news/MEDIARELEASE-ESCON-50-5>

<http://www.goldmine-elec-products.com/contactus.asp>

<http://www.vxb.com/CTUS.html>

<http://www.mcmelectronics.com/product/72-7735>

<http://www.sphere.bc.ca/test/new.html>

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

<http://www.indigo.com/magnets/?osCsid=8q4u6im8rksjscoa1vh9i4h7p3#.UqMTOyfnnFw>

<http://www.northwestmagnet.com/permanent-magnets.html>

<http://www.futurlec.com/index.shtml>

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

<http://www.newark.com/hamlin/55100-3h-02-a/hall-effect-magnetic-sensor/dp/50H8225>

<http://www.rmcybernetics.com/shop/pulse-modulator-ocxi>