

Buoyancy Power Stations – how and why they are working

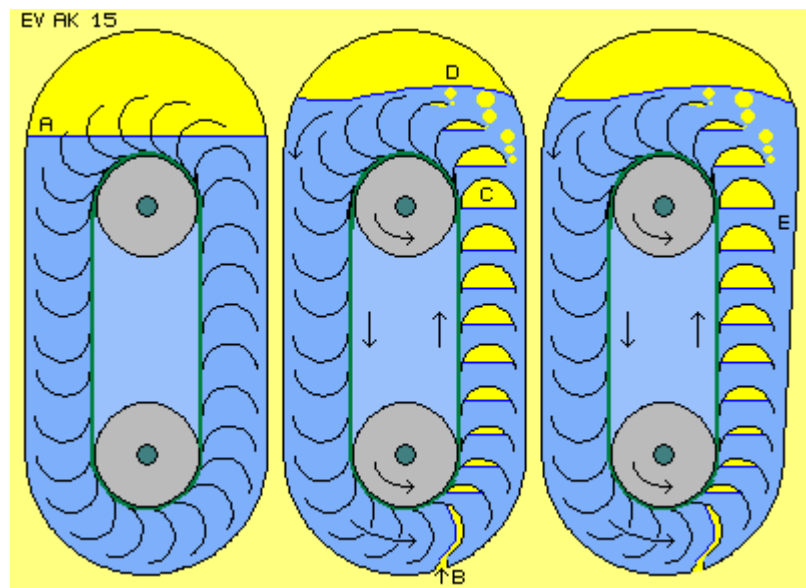
Objectives

In 2014/15 were published diverse articles at the NET-Journal concerning the buoyancy power station of the Swiss Rosch AG and about the activities of the GAIA-group for the real construction of that revolutionary invention. I tried to contribute to the understanding of these machines with two articles (see corresponding chapters at my website). However still a discussion is running at different media, whether and why such power stations could work at all – even running prototypes were shown several times. Also Inge and Adolf Schneider, editors of the NET-Journal, saw working machines. However they 'don't know, honestly, anything about the essential processes within these buoyancy-stations' - like probably most people up to now. Also the Rosch-company keeps the functions secret. However, general acceptance of such machines can be achieved finally when the principles of these new technologies became common understanding. So at the following I try to explain clearly, why the buoyancy power stations 'naturally' are working on and on.

Water-Displacement

Since Archimedes we know how buoyancy is working theoretically and we also have many practical experiences, e.g. pushing a ball down into the water. We know the most strong law of physical processes: the energy constant. The ball thus can deliver only that strength of lifting force as previously we had invested by pushing that ball down.

At schematic sketch EV AK 15, instead of the round ball, hollow half-spheres are drawn. Many of these tanks are installed at a chain (green) of a 'paternoster'. When moving down (each left side), the tanks are open at their upper side. When moving up, the tanks are open downside. The tanks are filled up by air (yellow) below at B. Further upward (see C) the air expands and water (blue) of corresponding volume is displaced. The original water level (at A) did raise some up (at D, some overdrawn).



Without any doubts, a buoyancy force comes up with a turning momentum at the paternoster wheels (grey). Based on the law of energy constant however, at first the water must be lifted against the gravity, demanding corresponding energy input. So once more the impossibility of any perpetuum mobile is confirmed. Our scholar knowledge strongly hinders (up to now) to go on just one small logic step.

Water Circulation

That lifting act is demanded only once for starting the system. At running mode, all water is moving down at left side and upward at right side. Within that circulation it does not matter, the water is inside or partly outside of the tanks. Where water is displaced from the tanks, the cross section of the canal should be some wider (like shown at E). The water must be

allowed to flow up and down with most few resistance and also must be allowed to change from right to left side, vice versa, with most few whirls.

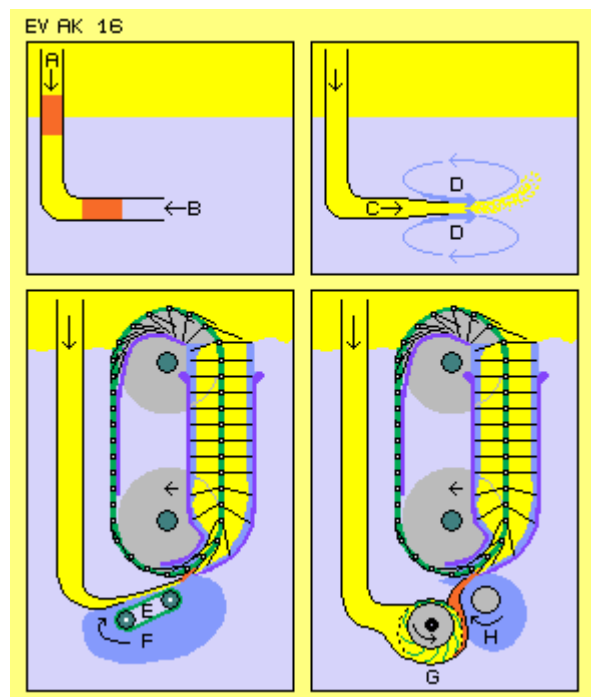
So the singular lifting of the water level for starting the system is not important for the running mode. By sure, a turning momentum is generated. This is reduced by mechanical friction. Also the circulation of the fluid within that system must be organized at its best. The canals should be build most small, so most few water must flow within (because the buoyancy force depends only at the height of a water column).

Air-Pressure versus Water-Pressure

Instead of pushing down previous ball into the water, here the air is pushed into the tanks just below the paternoster. Resulting is a second grave problem, sketched upside left at the picture EV AK 16.

A compressor pushes down the air at A. At the below end of the pipe, the water-pressure B is affecting against. Two (fictive) pistons (red) schematically mark, the compressor must produce compressed air at least as strong as the water pressure is counter-acting. We know that strong law of force = counter-force. Once more is confirmed, the wanted lifting force is achieved only by corresponding input of energy. Each filling air into next tank demands the same energy input again and again. Obviously any perpetuum mobile still is an unrealistic dream. Our scholar knowledge once more hinders to go on only one small logic step: ok, one must organize the processes that kind, no corresponding counter-pressure comes up – for example like sketched at this picture right upside.

If first time the static water pressure is overcome and air flows steady into the water (by some stronger or even less kinetic flow-pressure C), the water around the nozzle is dragged along with the air. All around the nozzle, the water builds a cylinder of a torus-like flow, like marked at D. Now the air is dragged through the center of that stationary vortex with much less resistance. This effect is well known (however often not used): an inlet-pipe may not end at the wall of a tank but must reach some inside of the tank. The fluid may not be stopped by the static pressure but now can be integrated into a steady revolving flow with nearby no resistance. Just likely, bad whirls at the outlet of a tank are avoided, if the outlet pipe reaches some inside the tank.



So that static counter pressure of the water is easy to overcome: the air must not be pressed into the tanks versus resting water, but the air flows parallel to the stream of an automatic build cylinder of moving water, with most few resistance. That revolving water flow must be build up only once for starting the system. Afterward, that circling flow is stationary running on and on, without additional demand of energy input. So the suggested problem for filling air into tanks deep within the water is solved and will not hinder the realization of that buoyancy power station.

Nozzle and according Water-Flow

Below left the picture EV AK 16 shows an example, how the nozzle and according water-flow could be build. The air is guided below of the paternoster along a sheet which is some

upward inclined. Below of, a 'conveyor belt' E is installed (analogue e.g. to a grind-belt) which produces and keeps running the demanded water-circulation F. The water there is guided upward-right and the air is dragged along with that stream without resistance (and the air by itself raises up into the tanks).

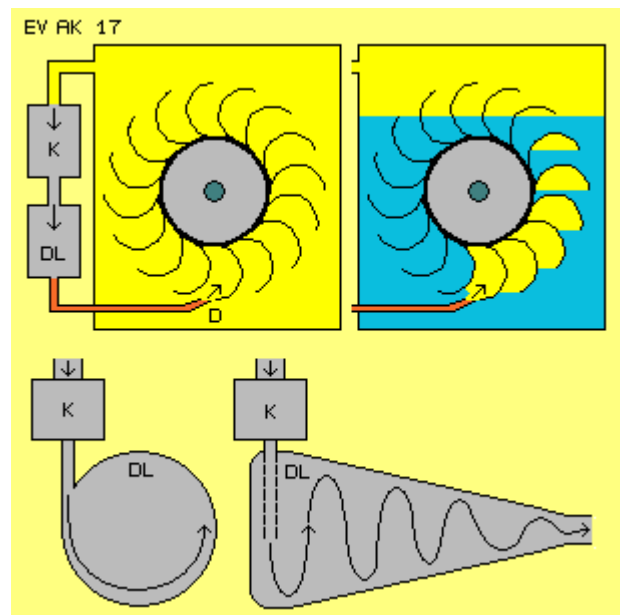
An alternative solution is sketched right side below at this picture. An impeller-pump G accelerates the air. The air flow is guided to the middle below the paternoster. Also there comes up a steady revolving water-cylinder. In order to keep that circling flow stationary, a pipe (grey) builds its center. So also here, the air-flow is protected against the static pressure of the water.

Here, the tanks show some other shape (see below). As a rule, the tanks will be long stretched and thus also long stretched nozzles should be used. The air must not be loaded from upside (like drawn here), but could be loaded from aside, parallel to the paternoster axle. The air should move twisted within the pipes and the air should exit as a flat jet through the nozzle (like wood exits a pencil shaper). Actually, there might be various solutions for filling up the tanks most fluid-conform.

In principle, there are two arguments mentioned against the efficiency of buoyancy power stations: first the necessary lifting of the water level and second the static water pressure, affecting opposite to the loading of air. Upside, both arguments were refuted, in principle simply by replacing the static view by the characteristics of dynamic flow processes. So actually, such buoyancy power stations quite naturally are working. Their performance is limited only by the size of the machines. Naturally, future machines will show increased performance, based on optimizing measurements.

Optimizing

Two examples are mentioned here, upside left at picture EV AK 17 at first by a fictive arrangement. A compressor K produces compressed air DL, which is guided through a pipe (red) and a nozzle D to the blades of a turbine. The demanded energy for driving the compressor mostly is regained by the turning momentum of the turbine.



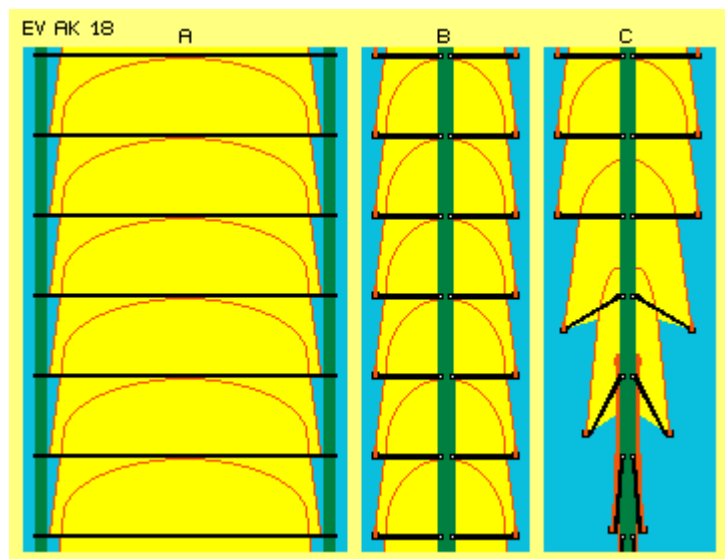
Also if that turbine would rotate within water (like sketched upside right at the picture) only a small part of energy would get lost by friction. Nearby 'for free' however now the buoyancy forces are available as additional turning momentum. Also at previous paternoster thus the energy demanded for compressing the air, contributes to the net-energy output of the system. This example once more shows, important are not the static pressures but the kinetic pressure of the flows makes the machines working.

Decisive thus is not the production of static air-pressure but the production of a most fast and strong stream of air. At this picture below, schematic is drawn a compressor K and a tank for compressed air (DL), left side by cross-sectional view and right side by longitudinal cross sectional view. Within the compressor, the air is strongly accelerated. If that flow is guided into the tank in tangential direction, that motion can go on and all air within the round tank will rotate continuously. If the tank is cone-shaped towards the outlet (here right side), the rotating motion is increased, so an intensive twist-flow will enter and run through the outlet pipe.

Such streams are moving with minimum resistance (details see chapter 'Potential-Vortex-Pipe' of my website). Finally at the nozzle, the twist will finish, as the air exits in shape of a flat jet (just like wood exits a pencil sharper). That jet has high kinetic power, because both speeds within the pipe add: the forward-speed increases by the twist-speed. As there exist no longer the static counter-pressure of water, the compressor has an easy job, must produce only a fast air-stream, working like a supply-pump.

Upside was already mentioned, most few water should be involved and the circulation of the water should be organized by minimum turbulences. Numberless variations exist for an optimum design of the paternoster-tanks. It could be advantageous to use techniques, which e.g. were most effective as parachute or paraglider. Light and flexible tanks preferably could be used, e.g. also for easier construction and service.

Picture EV AK 18 shows an example, left side by a cross sectional through both paternoster chains (green), at the middle by view sideward onto a chain. The tanks (red) are cone-shaped, one including the next. Two bows (black) can swivel aside and back, thus opening and folding the tanks (like drawn at this picture at right side). At previous picture EV AK 16 was shown how the tanks are opened for loading the air, below the paternoster wheel. At the upside paternoster wheel, the tanks again are folded and the air leaves the tanks. The input and output of air is done without turbulences. The tanks are guided up and down within narrow canals, within few water, also with minimum loss of friction or whirls.



Many other measurements will improve the system at future development. However already now exist completely working machines. Without any doubts, that technology will allow an extreme change of the energy supply system.

Source of Energy

This machine generates usable energy – however it's still a question where from that energy could come. At common technologies, one shape of energy was transferred into an other shape, inevitably with efficiency-losses. Well, these buoyancy power stations naturally are based on the appearance of gravity. However, here occurs no transformation of energies, the gravity is not 'consumed' or reduced anyhow, but gravity is only used for generating mechanical or finally electric energy.

Up to now exists only one technology at common understanding, where no transfer of energies occur: the heat pumps. There, the given heat of the environment is 'concentrated', within a room for some time, by an 'easy technical trick demanding relative few energy input', in order to generate a valuable usage e.g. for heating a house. If an explorer constructed any device with a surplus of efficiency, it's generally assumed the source of the additional energy must come from the environmental heat (what's mostly total wrong assumption).

Here exclusive are used the (side-) effects of the gravity, which is available everywhere and all time infinitely. The gravity affects an order of matter by specific weights: the stone sinks

down to the ground of water, a bubble of air raises up to the surface of the water. The 'easy technical trick, demanding few power-input' here is the disturbance of the natural order, when loading air into a tank below at the water.

The gravity system reacts immediately: the air bubble is pushed up until the 'natural order' is restored again. That automatic reaction of an open system for eliminating a disturbance, that's 'Free Energy' – which needs no corresponding 'consumption' from any source. The general valid principle of that 'Perpetuum Mobile of Fourth Kind' is described in details at my website).

The realization of that principle at buoyancy power stations is especially advantageous, because no negative side effects come up with that generation of pure mechanic energy. The turning momentum preferably will be transferred into electric energy. A small part of is demanded for the air compression and controlling the system. So this power station can work really autonomous, all over the world. Thanks for the (unknown) inventor. The Rosch AG and GAIA-Group and many supporters deserve high respect for realizing that revolutionary project.

Source: www.evert.de

File : www.evert.de/eff952.pdf