

Marrakech 2016: Is there a conspiracy or is only scientific, technological, political, legislative incompetence, which increases the CO2 in the environment?

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To this question cannot answer the delegates of the 196 countries participating in the summit, which are among the prime suspects? However, the undersigned does not believe in conspiracies, but knows for sure that the sum of specific scientific, technological expertise, policies, laws expertise do not make a global expertise, if they do not find together global solutions.

The following drawing shows the global urban purification described on the website <http://www.SPAWHE.eu>, which had no luck for reasons unspoken from world leaders of environment and energy, but easily conceivable, as, directly related to the inability of global public institutions, including universities, acting as consultants, to coordinate scientific specialties and technologies in the public interest. The global purification becomes even more efficient and sustainable, replacing the pumps of the main hydraulic lifts with pressurized hydroelectric plants that produce energy and even purify the water while they raise it. In fact, in these systems pumps have been replaced with some complete plants (plhpow = pressurized lifting hydroelectric plants with

pressurized hydro = water oxygenation those lifting oxygenating water and other plants with smaller footprint, suitable to be installed directly in the pits and in purifying wells (plhpwow). These solutions are based on physical and hydraulic principles known for centuries. Long before the birth of thermal and thermal power plants engines. In fact it is sufficient to modify a single-stage centrifugal pump, so as to create a double separate supply to the inside of the impeller. The aspirations of this pump are connected between the tank to atmospheric pressure with the water to be purified (which also collects the water drained from the turbine) and a pressurized tank with the compressed air, which can reach up to 35 bar. Even the delivery of the pump with the dual separate supply is connected to the pressurized tank. In this way the static pressure in the suction and delivery is equilibrated, therefore, to circulate the water accumulated inside the pressurized volume is sufficient the prevalence of a few centimeters of water column. Therefore, with separate supplies that meet only in the impeller, it is possible to introduce the low-pressure water recovered at the exit of the turbine in the pressurized tank recycling loop, spending a very small energy. Since water is not compressed, the same amount of water is expelled from the tank, with high pressure, from the compressed air cushion through a tube that feeds the turbine, transforming the energy of static pressure into dynamic and producing electricity. The compressed air volume can not vary due to the fact that the tank is always full, therefore, the compressed air acts as a spring. It is not consumed water and the air that is consumed only for the greater pressure effect solubilizes in water. In fact, the oxygen solubilization with high pressure for the purposes of purification is more efficient of the current diffusers. The energy gain between energy expenditure and produced depends on the operating pressures. It 'easy to exceed 1/100 ratio without spending one dollar for fuel. But this does not only concern pits purifying, also affects the distribution of water which can be made by producing energy, not consuming it.

Regards protection of the territory against flooding which also can be made by producing energy and oxygenating the water, regards the environment in general, because we can oxygenate the ports and waters of the lagoon city of Venice, no energy costs, protecting the environment. The compressed hydropower, suitably adapted, can enter into the coffers of all means of transport, of land, marine and airplane by allowing you to travel around the world without fuel. However, these solutions are the only ones that could positively chemically interact with the environment to reverse the process of global warming do not exist. I think that the technical, like myself, who have been lucky enough to accumulate the necessary experience to make alternative arrangements, they also have a duty to publish them and to sow doubt on the competence of those who have not found these solutions, although with legislative technological scientific economic and political means much more powerful. If the Kyoto summit, the percentage of CO₂ has risen from 360 to 400 ppm, there are no excuses, because they have never been published energy and purification solutions truly alternative. SPAWHE has found these solutions, which could even steal CO₂ from the environment, if applied widely. If the experts continue to ignore them, we cannot talk about global incompetence but a global conspiracy.

Luigi Antonio Pezone

Post Scriptum

The hardness of the title and the content of this short article is proportional to the silences that have collected ten years of hard work among professionals of public and private works, which basically, were divided into a first phase, targeted primarily at public institutions, dedicated the rationalization of the purification systems, according to the experience lived by myself, with almost forty years of experience installation technician, may not work if they do not globalize, incorporating the depuration of water and air

in all human activities, without 'interruption of organic and inorganic cycles, turning the entire planet into a great purifier. This attempt failed, aimed primarily, Italians public institutions, was born the website SPAWHE and seeking international partners. Knowing that Italians public institutions are neither worse nor better than international, research has been directed, primarily to large multinationals. Only they could have the economic strength and technique to substitute public bodies, with greater efficiency, even if motivated by profit. But multinationals have been even more silent of public bodies. Probably they prefer the current market and the state, which is divided into corporations that deal with large contracts, without large expenditures in research and technology, and technological multinationals, who live mainly in research and commercial patents.

Protective multinational environment are not yet born, and could certainly not be born to adhere to my few global patent applications. However, it was necessary to deposit them, just to show that the time is not yet mature to protect the environment by both public institutions, both by multinationals.

The second phase of the SPAWHE work began almost by chance, realizing, that also hydropower has not been developed in the whole potential. Indeed, one can say that what we saw is only the worst side of hydropower. But even in this area public and private companies, Italian and world organizations, are proving to not wanting to acknowledge messages. The specializations of science, for the first universities, and business technologies, which should reduce production costs have prevented the development of simple synergies, which first ironically, would involve precisely the reduction of energy costs and water treatment. But it is difficult for the insiders public and private sectors understand if someone does not give them the order to comprehend. Who has the power to give this order? If it has not made President Obama,

apparently, it was a progressive; it is unlikely to do it President Trump and President Putin. There is little hope in the Chinese People's Republic, which continues to build coal-fired power stations by 6,000 MW / h. Probably just a poor country of oil and water, which has nothing to lose, can realize the SPAWHE prototypes. Of poor countries there are many, and there will be more and more. But there are politicians with the courage to do without the scientific and economic consultants that are warming the planet and destroying the resources?

In this file there are summaries of the latest inventions of SPAWHE in environmental protection are still alive. The more than 25 previous inventions have expired having never found public or private partners. But without the logic of previous inventions could not be born new inventions, which would produce energy while protecting the environment, and cooling the planet, with investment and management costs hundreds of times smaller than the current energy and water treatment systems. Unfortunately SPAWHE may not exhibit prototypes, being only of a pensioner website.

PUMPS AND TURBINES WITH SEPARATED DOUBLE SUPPLY UNTIL TO THE IMPELLER.

the amendment to be made to the pumps and the turbines to turn with the dual separated supply until to the impeller, consists in the extension of the input section and in the division into four parts of the same, continuing this division also in the inner part of the pump or turbine casing, until the impeller in rotation, perfectly following the profile; the rotation of the impeller that in the pumps leads to a depression in the center of the impeller itself which coincides with the incoming section of the four separate streams, therefore, facilitates the entry of the flows even if the same are fed with different positive pressures, as they go in the same direction and They meet only in the impeller, alternating in succession in the same quarter of the rotating impeller sector. In the case of the turbine, instead, there is no need of depression, just the simple division of the flow, until the impeller and the accuracy of machining which prevent the entry of water with higher static pressure in the parallel sectors fed with lower hydrostatic pressure .Therefore, both for the pumps, both for the turbines, if we feed the two inlet ports with the same pressure they function with the same performance of the pumps and existing turbines. If instead we feed the inlet ports at different pressures, the output of the pump have the sum of the flow and the maximum inlet pressure (Static + dynamic produced by the pump), although the higher static pressure is on only one side of the pump, while the output of the turbines we have the sum of the flow and the maximum kinetic energy exploited, even if the greater pressure is entered through one of the two feeding ports (Pascal's principle). Obviously the results of these sums will have to be multiplied by the yields depend on the type of impeller used and the accuracy of machining, and pressure losses.

As this invention very simple to realize no one has understood the importance, therefore, can only be understood through the

description of the new plants invented specifically for water-saving and energy production, which without the use of such a pump could not be invented. These systems that are listed below and is briefly describe the drawings. They are just the first of a long series, but they are already sufficient, to help people understand that this invention if it had arrived before he could have avoided the current urban pollution problems of water scarcity and global warming.

These and other aspects of the present invention will be more apparent from the following description.

BRIEF DESCRIPTION OF THE DRAWINGS

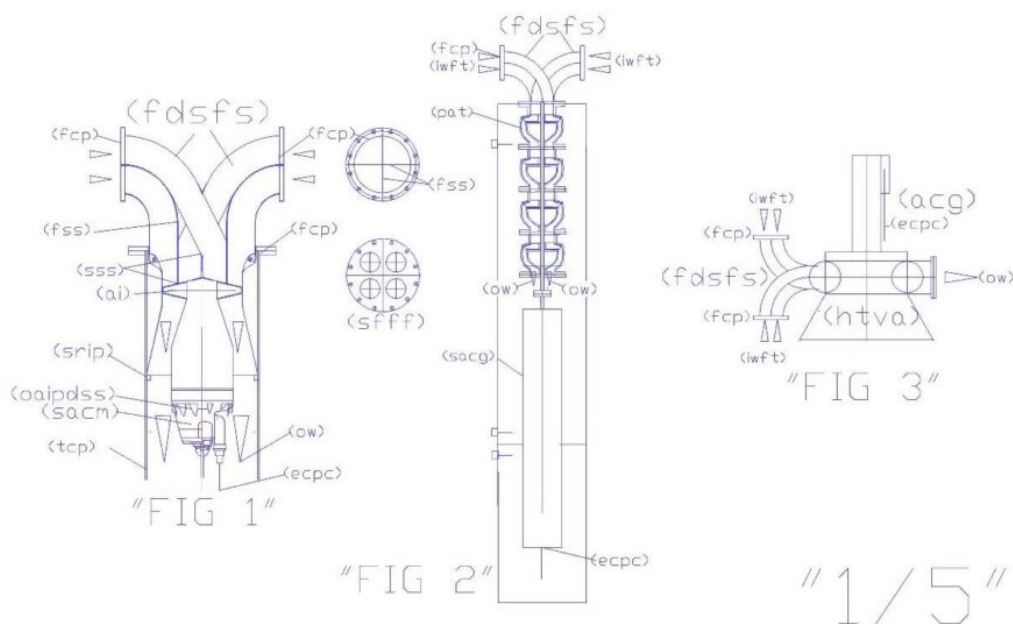
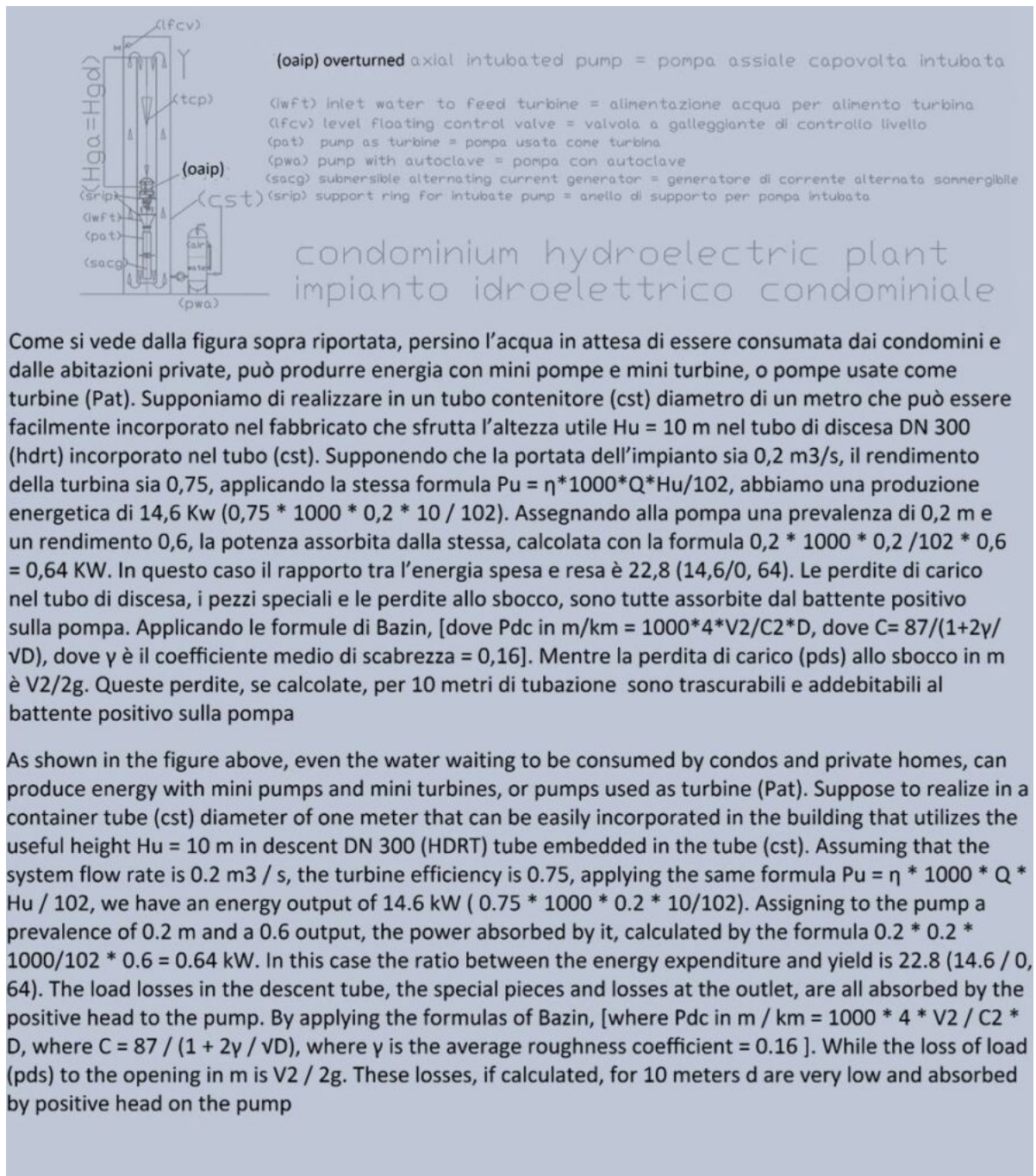


FIG. 1 is a schematic representation of a overturned pump with separate double supply until the impeller, coupled to a submersible electric motor.

FIG. 2 is a schematic representation of a multistage pump used as a turbine with separated supply until to the impeller coupled to a current generator (sacg).

FIG. 3 is a common representation of a turbine with double separated supply until the impeller with vertical axis, coupled to a current generator (acg).



Abstract italian demand patent N. 102016000066396 del 27/06/2016

AUTOCLAVE SYSTEM FOR WATER PUMPING, HYDROELECTRIC ENERGY PRODUCER.

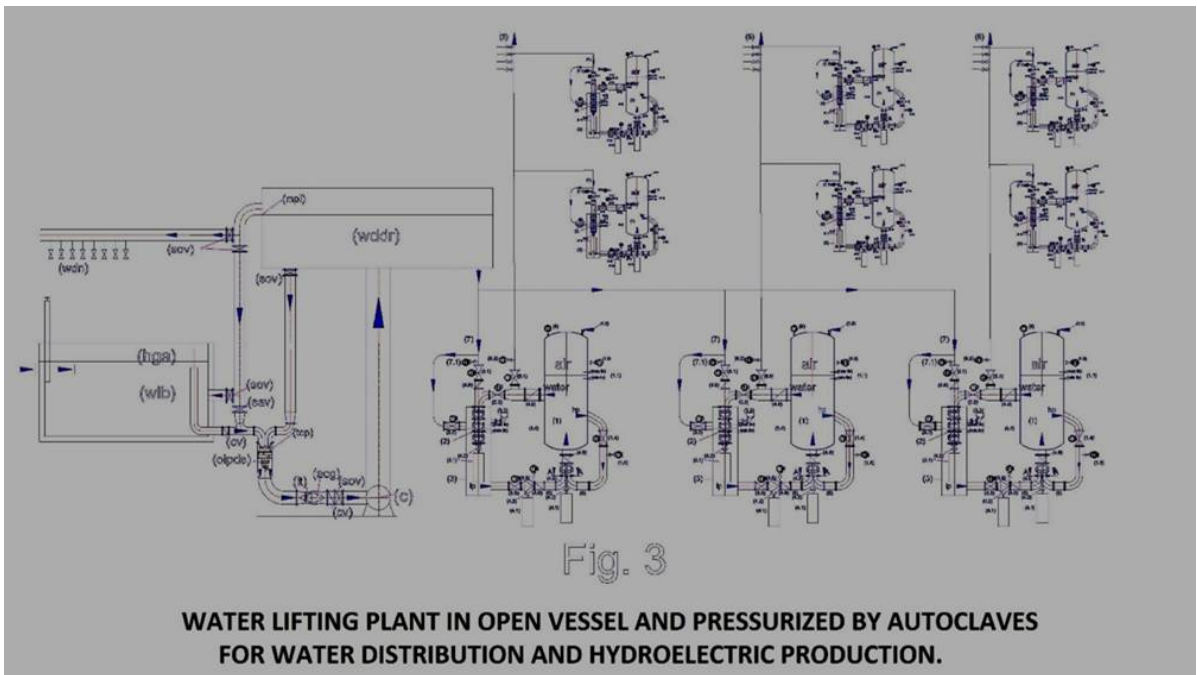
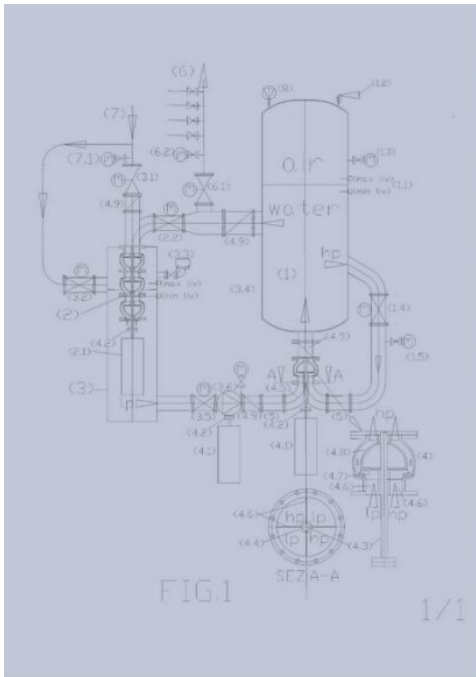
The invention of the pump with dual supply on the suction side has allowed the hydropower invention by recycling of water in an open vessel. With this system we have, at the same time, lifting water and the production of energy, mainly by exploiting the dynamic pressure (or kinetic energy) of the water flowing from the upper reservoir. The two inventions, summarized above, have inspired the present invention, which allows the production of energy by modifying the existing plants with pressurized autoclave. In fact, in the case of a hydraulic system with pressurized autoclave (1), we can not use the energy of the water surface position of an open basin, which produces kinetic energy in the descending pipe which feeds the pump and turbine, but we can exploit the compressed air pressure that pushes the pressurized water directly in a turbine (2) and discharging in a reservoir at atmospheric pressure (3). So, in this case, we exploit the pressure drop and the flow rate through the turbine, while the pump with double feeding, immediately re-inserting the water in the pressurized tank (1), from the suction side of one of the two feeding mouths, allows to save the energy that would be needed to restore the pressure of the air cushion, consuming only at that stage the energy for the circulation of water without the energy expenses for the hydraulic lift, which is necessary with traditional pumps. Even energy expenditure for lifting water to the water distribution network will be reduced energy costs to a minimum, keeping constant the levels of the autoclave tank pressurized and transit, at atmospheric pressure by means of synchronization of cash inflows and outflows with motorized valves and inverters that regulate the speed of the pump motors. The energy produced by autoclave systems will be hundreds of times greater than that absorbed, also improving water quality that never stagnates in the pressurized tank and in that transit, at atmospheric pressure.

Who will win the race to the miraculous energy?

Some producers of renewable energies have taken up the challenge of BILL GATES, who stated that intends to finance an energy miracle (A reactor fueled by nuclear waste that meets the US energy needs for the next 800 years). They say that this energy does not serve because their energy is already miraculous, being renewable and having halved the costs. Even SPAWHE, that is not a producer and have not funds for research, has taken up the challenge, but says that the miracle did it nature by creating the air compressible and water incompressible that put together intelligently, can produce all the energy we want in fixed and mobile version with insignificant cost compared to current energy and also to those of the future. If this, until now, has not happened was for hydropower fault with the hydraulic jump, which put off the road designers, being the hydraulic jump a particular case where overlap the static and dynamic water pressure drop that passes through the turbine. But this case is no longer reproducible, having made wide use of the existing hydraulic jumps. Continue to produce hydroelectric energy with the hydraulic jump, it becomes more and more uneconomical and wrong of the environmental point of view.

But SPAWHE examined the subject, It found that in hydrology world is missing the most important basic invention, what in mechanics, could be regarded as the equivalent of the inclined plane, the Archimedean lever, the transmission ratio gear or pulley. This invention is the pump with double supply mouth, with water flows separated until the impeller, which allows to lift the water absorbing energies hundreds of times lower than those of traditional pumps. Today today can say with certainty that there are many ways to produce hydroelectric energy without the hydraulic jump, recycling water, even raising the water, and even taking advantage of the artificial pressure of an autoclave tank. In the new hydrology, especially when it is necessary to recover and lifting water, we can control the flow of water with stepper motors mounted on the valves and inverters that regulate with precision the speed of the pumps. When the volumes of water are small and the pressures are high, if place side by side two tanks, one of which pressurized with compressed air and one at atmospheric pressure and realize the hydraulic scheme shown in the figure, we can limit the oscillation of the water level in both tanks in a very narrow range, always recycling the same water, through the computerized control of the valve position and the speed of the motors. The dynamic energy of the water that passes through the turbine is produced by the compressed air cushion which can not leave the space assigned in the autoclave by level regulators, and therefore exerts a constant pressure on the water entering the turbine, that the discharge in the open tank, from which it is re-inserted, without solution of continuity, in the pressurized water recycling circuit of the autoclave, entering from the second suction mouth of the pump with double power. Since does not vary the volume of water inside the autoclave tank, we must not overcome the opposition of the air cushion but only the frictional resistance of the closed circuit, which are small in size compared to the static pressure exerted by the compressed air.

This circuit if uses a compressed air pressure of 3.5 bar and a flow rate of 35 L/s, produces about 9.0 Kw consuming about 0,07 Kw / h. With a pressure of 35 bar and a flow rate of 35 L/s would produce about 90 kW / h, consuming about 0.7 Kw / h. With a pressure of 35 bar and a flow rate of 350 L / sec, it would produce about 900 Kw / h consuming about 7.0 Kw / h. This energy consuming very little air and completely recycled water can be mounted even on sustainable means of transport of the future, saving the costs of distribution networks and railway rails. But they can also be used on other large ships and large aircraft. If today this energy, that is a hundred times cheaper than coal, it is not produced, it is only because those who have been wrong to not produce it, still have the power to pretend that it is not true. To Bill Gates, who is a very intelligent person, who has not responded to a previous open letter (www.spawhe.eu/open-letter-to-mr-bill-gates-on-energy-miracle). Spawhe says simply that we can not venture into new nuclear adventures, even if it would pay all of his own pocket, after scientists have shown that they have neglected the fundamental principles of physics and hydraulics, which could produce energy at very low cost by at least one hundred years, to chase much more expensive fossil energies that have not been able to clean and nuclear energies, also more expensive, which produced only irreparable damage.



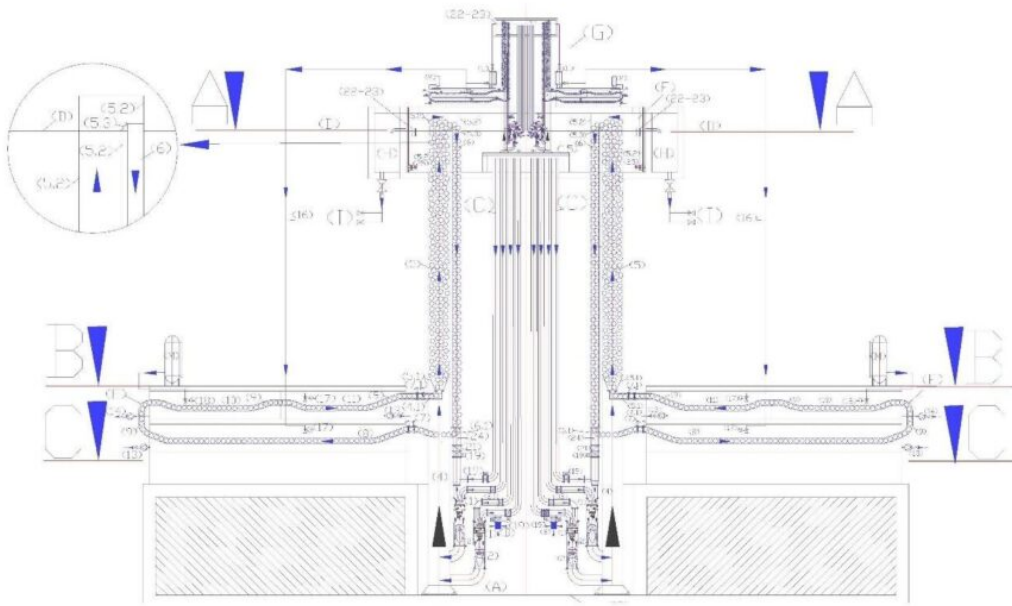
Abstract italian patent demand No. 102016000057968 of 07.06.2016

VERTICAL DESALINATORS – DEMINERALIZERS BY ION EXCHANGE WITH HYDROELECTRIC ENERGY PRODUCTION

Abstract

The state of the art in the development of desalination and demineralization treatment of marine and brackish water has

been conditioned, as many other industrial systems, depuration, energy and protective of the environment, by the absence of synergies between the pumps and hydraulic turbines and from the incorrect approach to the gravitational force, which is not to be won by lifting hydraulic but sustained, with a one-way circulation of water in open reservoirs, upper seats that double as hydraulic backflow preventers. With the triple synergy between the dual supply pumps, turbines and recycling of water in an open vessel, applying hydraulic principles known for centuries, such as the principle of communicating vessels, the laws of Bernoulli and Pascal, strategically placing the electric double suction pumps between a high positive hydraulic head and the turbines, dimensioned for the exploitation of the same hydraulic load, the pumps, working with a balanced load, with a small energy consumption, they win the state of inertia, allowing the energy transformation of pressure of the intubate water column overlying the pump, into kinetic energy and transferring it to the turbines, which produce energy. These spheres, floating climbing ion exchanger and descend by gravity, emptying water in downhill tubes. By means of diverters change the path compared to the flow to be immersed in the washing tanks and regeneration of the resins, and reinserted again, indefinitely, in ion exchange circuit without interruption of the desalination cycle and energy production and without costs for heating the water or replace the membranes. The demineralized water serving for the washing of the resins is produced by continuing the process through a mini system completely similar to the main that part from the desalinated water tank. If men want to produce desalinated water in industrial quantities that serve humanity, also desalination plants, as purifiers and water lifting and distribution, must become producers of energy, not consumers, supporting, not opposing gravitational forces. The sustainability of global systems is not based on complicated technology but on synergies between simple and rational systems.



VERTICAL DESALINATORS - DEMINERALIZERS BY ION EXCHANGE WITH HYDROELECTRIC ENERGY PRODUCTION. <http://www.spawhe.eu>

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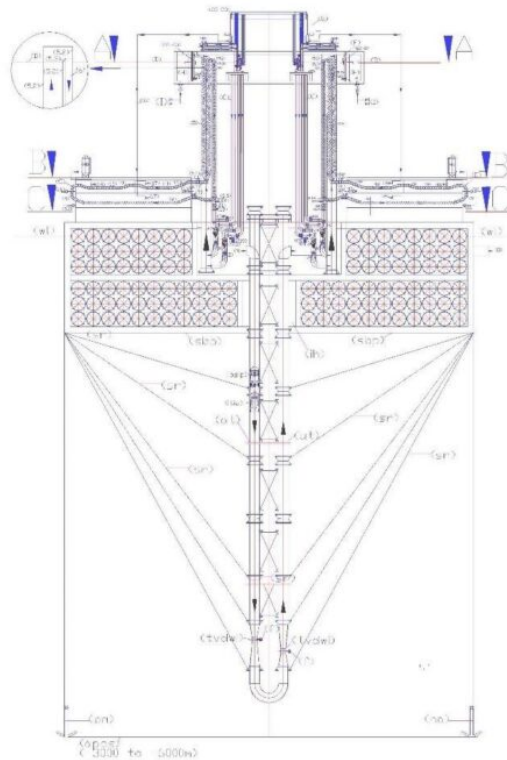
Abstract italian demand patent N. 102016000058018 del 07/06/2016

FLOATING SYSTEM, HYDROELECTRIC, DESALTER, EXTRACTOR OF CALCIUM AND CARBON FROM MARINE DEEP WATER.

The state of the art in the development of desalination and demineralization treatment of marine and brackish water has been affected, along with industrial systems, purification, energy, food and protective of the environment, the absence of synergies between the pumps and hydraulic turbines and from the incorrect approach with the gravitational force, which must not be won by the hydraulic lifting but sustained, with one-way movement of water, especially in the gravitational

direction, in the sea, in large basins, in open tanks. With simply overturned pumps coupled to the turbines can produce low-cost all the energy you need; continuing the descent and ascent of water in deep waters, for the venturi effect, we can suck and lift small percentages of deep water with high calcium and carbon percentage solubilized in them, that arrived at the surface, producing phytoplankton and alkalinity, increasing the abundance of fish and combating acidification and global warming;

while on the floating platform, made with extruded and ribbed tubes made of low density polyethylene, blown in them polystyrene foam to make them unsinkable, with the triple synergy between the dual fuel pumps, turbines and the marine water recycling, by applying known hydraulic principles for centuries, as that of communicating vessels, the laws of Bernoulli and Pascal, placing, strategically, the electric double suction pump between a high positive hydraulic head and the turbines, we can desalinate large quantities of water, simply transforming a vertical tube in a ionic exchanger and recycling pipes and mixing in the energy producers, while the anionic and cationic synthetic resins, circulating contained in perforated polyethylene spheres as sieves. These spheres, floating climbing ion exchanger and descend for gravity emptying water in downhill tubes. By means of diverters change the path compared to the flow to be immersed in the washing tanks and regeneration of the resins, and reinserted again, indefinitely, in ion exchange circuit without interruption of the desalination cycle and energy production and without costs for heating the water or replace the membranes. If we want to exploit the immense riches of the sea, floating solutions have no alternative. The systems must be designed supported from above, since it cannot exist electromechanical equipment that can work to the abyssal depths. The sustainability of global systems is not only based on high technologies and special materials but above all on the physical basic principles, chemical, hydraulic and mechanical.



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FLOATING SYSTEM, HYDROELECTRIC, DESALTER, EXTRACTOR OF CALCIUM AND CARBON FROM MARINE DEEP WATER.
<http://www.spawhe.eu>

Abstract italian demand patent N. 102016000058416 del 07/06/2016

FLOATING SYSTEM WITH EXTRUDED POLYETHYLENE PIPES, RIBBED, REINFORCED AND FILLED WITH POLYSTYRENE.

The significant delay in the development of the exploitation of marine resources and the protection of global environment is due to many factors, among them the lack of economic floating systems and unsinkable. However, such systems could not be studied in detail without also provide technical solutions that can lead to colonization by mass of ocean flat. In fact, at present, it does not make sense this colonization, being inhospitable ocean flat for human life, both because water desalination is not sustainable, both because from the point of view of food, the ocean flat are not productive. The fish production is concentrated in areas close to the coast, where the wind and water currents allow the production of phytoplankton and zooplankton, and thus the production of food

for the great variety of fish species and for men. However, the ocean flat could become the most rich source of human nutrition, because the invention of "Floating system, hydroelectric, desalter, extractor of calcium and carbon from marine deep water." allow to desalinate, produce energy and abundance of fish at the same time, raising to the surface a part of the deep water, rich in calcium and carbon, dissolved by high hydrostatic pressures. These plants will produce phytoplankton, zooplankton and alkalinity, also fighting water acidification and global warming. In this project have been incorporated extruded ribbed polyethylene pipes, filled with polystyrene, to make unsinkable plants. Of course, it must also be made unsinkable floating islands and connecting roads that will serve around these plants. Therefore, even though the valid existing flotation systems used for the construction of marine shipyards, should give place to a large series productions that can be only realizing them by extrusion. Even sea transport of these tubes must be sustainable and economic, by assembling, in shipyards major floating structures and bulky and transporting them in place by tugboats.

Legend:

(apos) abyssal plain ocean seabed = fondale piana abissale oceanica; (bc) bridge crane = gru a ponte; (bcb) bracket cross bracing = staffa per controventatura; (br) bracing = controventatura; (cb) clamp brackets = staffe a morsetto; (dt) descent tube = tubo di discesa; (f) filter = filtro; (fsp) flange for support pipe = flange per supporto tubazioni; (hc) hydraulic cylinder = cilindro oleodinamico; (hcb) hydraulic clamp brackets = staffe a morsetto oleodinamiche; (hcbf) hydraulic clamp brackets fixed on supporting base platform = staffe a morsetto oleodinamiche fissate sulla piattaforma di base portante; (ih) immersion hole = foro d'immersione; (itia) intubate turbine with incorporate alternator = turbina intubata con alternatore incorporato; (ls) loft in steel = soppalco in acciaio; (mftp) modular floating tube made in

polyethylene = tubi galleggianti modulari in polietilene;
(na) navy anchor = ancora marina; (osip) overturned
submergible intubated pump = elettropompa sommergibile
intubata capovolta; (othcu) oil tank and hydraulic control
unit = serbatoio olio e centralina oleodinamica; (sbp)
supporting base platform = piattaforma di base portante;
(sfep) special flanged end pieces = pezzi speciali flangiati
di accoppiamento terminale; (ssbc) support structure bridge
crane = struttura di sostegno gru a ponte; (tvdwi) throttling
venturi deep water intake = stozzatura venturi per aspirazione
acque profonde; (tcpwr) transportable chassis with many
electric winches for the descent of the ropes = telaio
trasportabile con molti argani elettrici per la discesa delle
funi; (ut) uphill tube = tubo di salita; (wl) water level =
livello acqua.

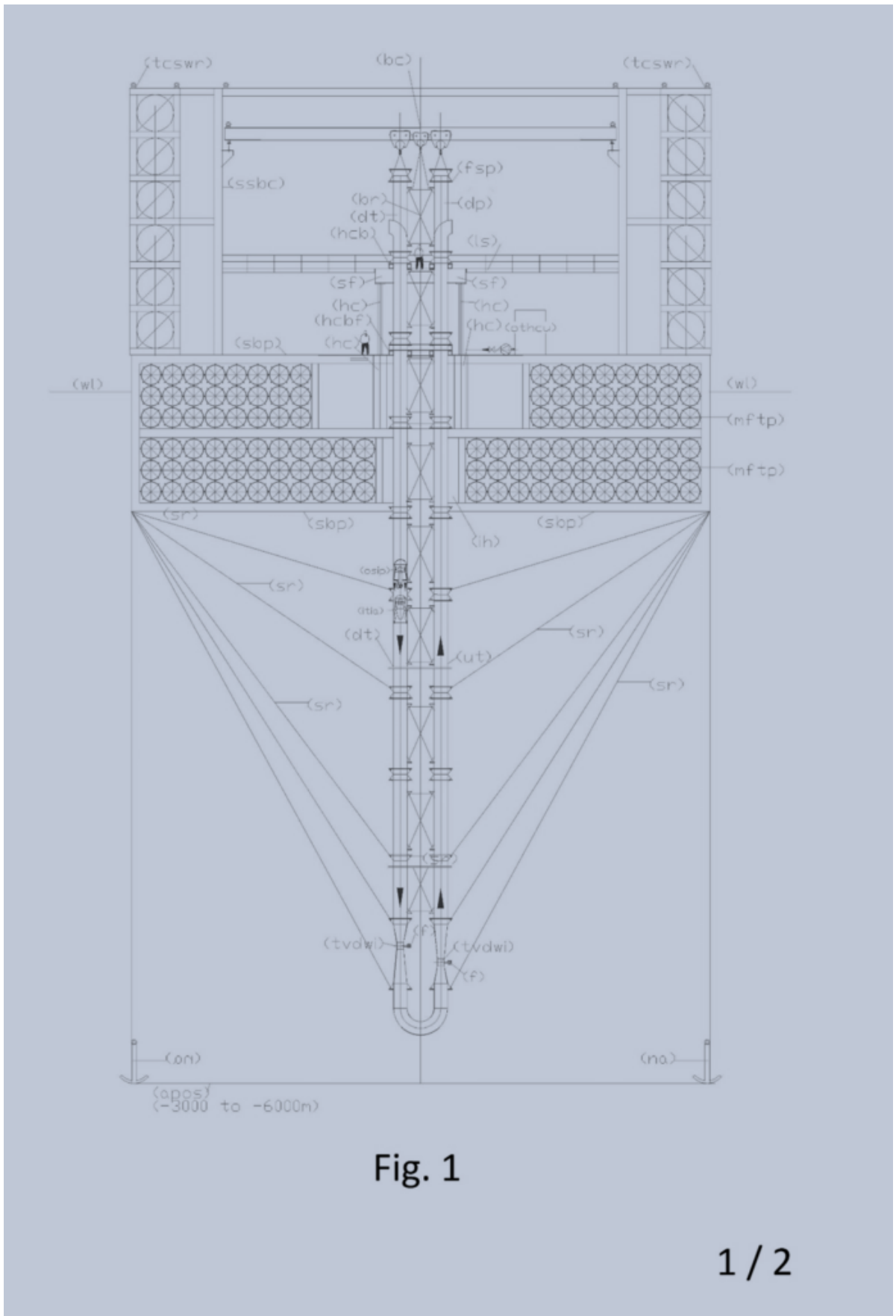


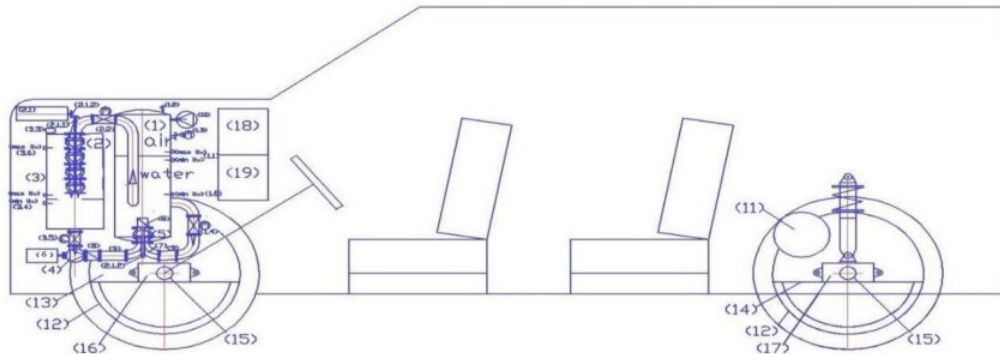
Fig. 1

HYDROELECTRIC POWER AUTO WITH PERIPHERAL TORQUE TO THE WHEELS.

The current state of the art of means of transport was affected by heat engines, which predominated, for the absence of viable renewable energy with small dimensions. But the invention of the pump with double separate supply until the impeller has allowed the pressurized hydropower invention, with recycling water, which can replace thermal engines. Certainly it is more cumbersome, but immensely cheaper and nonpolluting. From the point of view of the electro-mechanical means of transport that will use the pressurized hydropower, are simplified, eliminating in addition to heat engines the fuel tank, the mufflers and exhaust pipes, the engine cooling system, the transmission shafts, the exchange gears, clutch, differential. The hydroelectric-electronic system, which will be used, does not need of fuels and even of heavy and expensive batteries lithium accumulators with little shipping autonomy, which involve considerable disposal costs and the use of materials in the process of exhaustion. The hydroelectric means of transport will cost less of the existing means of transport for the absence of many of the components mentioned above but also because the motion transmission by electric-electronic means is much more economical than the mechanical, without sacrificing the safety on the road. In fact, the four-wheel drive of the wheels may be of series and all the wheels powered and controlled individually. Also the control of the differential speed in the curves and the braking system (ABS) may be incorporated in the motors that turn the wheels by transmitting the driving torque to the periphery and not in the center of the wheels as in the existing vehicles. This allows to reduce the power required according to the transmission ratio between the ring gear mounted to the periphery of the wheel rim and the pinion keyed to the shaft of the electric motor that turns the wheel, but also according to the force-transmitting arm, which coincides with the radius of the rim on which the tire wheel is mounted. In the hydroelectric vehicle the reduction in

power is not imported for the purpose of energy consumption, since the energy is produced without the outlay of money for the fuels, but to reduce the size of the electro-mechanical equipment, and especially to reduce the volume of the tanks which will be incorporated in the means of transport. By the pumps with the dual separate supply up to the impeller, we can work around the autoclave pressure, without having to restore, by inserting in the 'water recycling circuit water which has produced the energy, consuming a small part of the energy produced by the group turbine – alternator. The drive control of the pump motors and the drive wheels allows managing instant by instant the energy that must be produced based on consumption required by the vehicle.

CAR WITH HYDRO POWER ENGINE



<http://www.spawhe.eu/hydroelectric-power-auto-with-torque-peripheral-to-the-wheels-novit%C3%A0/>

Legend: (1) autoclave pressurized tank; (1.1) level regulator with capacitive probes; (1.2) safety valve; (1.3) manometer with shut-off valve; (1.4) motorized valve flow control with position transmitter; (1.5) pressure or flow transmitter; (1.6) minimum level probe in the start system; (2) pump used as a turbine (pat); (2.1) alternating current generator; (2.1.1) bushing with sealing ring; (2.1.2) angle diverter with conical gears; (2.1.3) transmission shaft; (2.1.4) transmission shaft protection tube (2.1.5) double curve with septa crossed separators in low pressure (LP) and high pressure (hp); (2.1.6) septa separators of flow; (2.1.7) closed type; (2.1.8) Diffuser of the pump; (2.2) motorized valve to supply turbine with flow adjustment; (3) water transit tank at atmospheric pressure and containment pat; (3.1) motorized valve to feed pressurized water network; (3.2) motorized valve bypass supply at low pressure; (3.3) air valves; (3.4) Water level control with capacitance probes; (3.5) motorized valve for water supply at low pressure; (3.6) maximum level probe in the start system; (4) electric pump to supply in low pressure (5) electric pump with double separate supply until the impeller; (6) pump drive motor, with variable speed, controlled by an inverter; (7) double curve with septa crossed separators in low pressure (LP) and high pressure (hp); (7.1) septa to flow separators; (8) check valve. (9) flow diverter stub pipe; (10) electrocompressor; (11) self braking engine with variable revs (11.1) sprocket gears; (12) wheel rim; 12.1 ring gear; (13) motorization support of front wheel; (14) motorization support of rear wheel; (15) stationary shaft; (15.1) bearing; (15.2) wheel rim mounting flange; 15.3 brake disc; (16) front Axle; (17) rear axle; (18) electric command and control panel; (19) heat pump for summer and winter air conditioning.

Abstract italian demand patent N. 102016000111938 dated el 08/09/2016

PRESSURISED SUBMERGED HYDROELECTRIC PLANTS IN BASINS WITH LIFTING AND OXYGENATION.

The invention of the pump with two separate supply until the impeller on the suction side has allowed the invention of hydropower by recycling water in an open vessel. With this system we have, at the same time, lifting water and the production of energy, mainly by exploiting the dynamic pressure (or kinetic energy) of the water flowing from the upper reservoir.

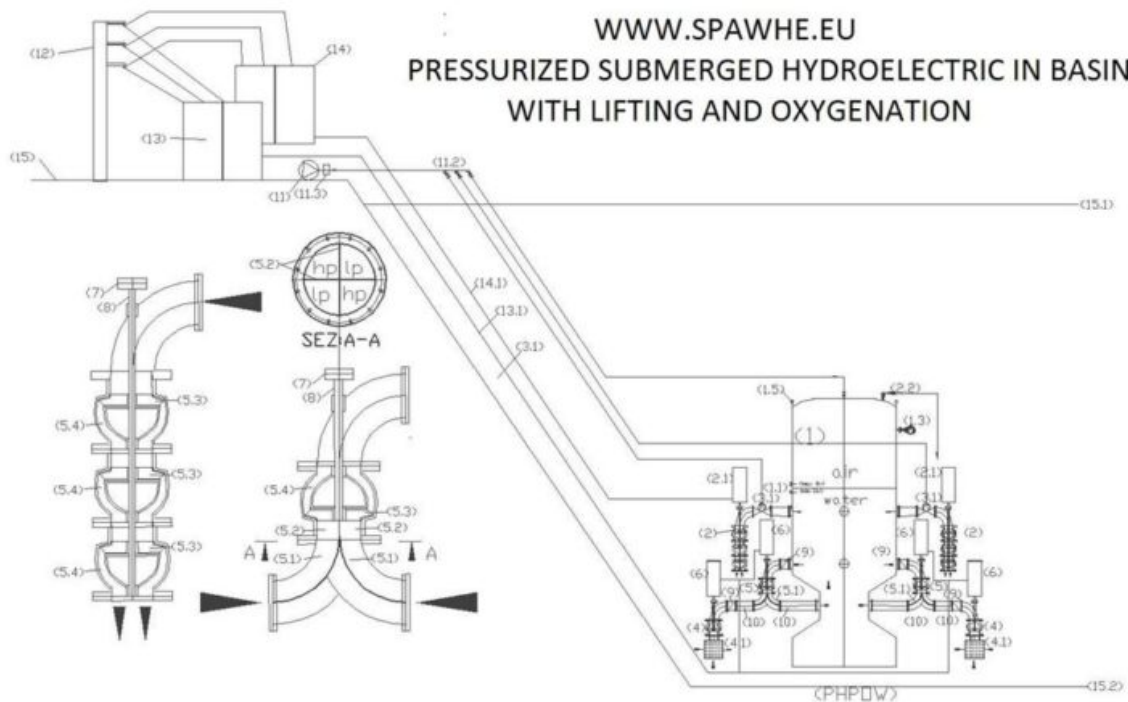
This invention, in turn, has inspired the present invention, which interacts positively with the environment. In fact, in pressurized systems with pumps with double separate power supply, the continuous internal recycle to the volume of water accumulated allows balance the hydrostatic pressure in inlet and outlet of the pump and therefore to circulate the water with very little energy.

With the second separate supply until the inside of the impeller, it is possible to introduce water at low pressure in the pressurized tank. Since water cannot be compressed, the same amount is excreted in high pressure by the cushion of air through a tube that feeds a turbine, transforming the energy of static pressure into dynamic and producing electricity. The compressed air volume does not vary, therefore the air behaves like a spring, but due to of the principle of Dalton on the partial pressures of the gases and Henry on the solubilization of the gases, neglecting the effect of nitrogen that is neutral and of the other gases that are in negligible percentages, we have an important effect of the oxygen solubilization due to the pressure which increases proportionally according of the same. This involves an increase in capacity of water purifying, without increasing the cost of production of electricity. Considering that to state of the art pressurized water power does not exist, it is clear that this invention involves huge economic and environmental benefits. If with the pump with double separate supply introduce polluted water into the pressurized tank, we can produce energy while we clean instead of consuming energy. We can realize submerged pressurized water power plants in the depths of lakes and seas. But the same application can be produced in a reduced version even in small treatment plants. All the hydraulic systems, including those depurative, of the future will be able to produce energy because the power of compressed air always allows to have residual energy to be exploited in a turbine and all will be with the water recycling, because the recycling of water by the pumps with

the dual separate supply allows to circumvent the force of gravity and the pressure. The compressed air will be used as an accumulator of energy that disperses only the part of the energy due to the components that dissolve in the water chemically. This dispersion in global systems, which are also depurative, cannot be considered a loss of yield. With this invention we move towards the elimination of energy costs and multiplies environmental protection.

Legenda: (1) Steel pressurized tank; (1.1) level regulator with capacitive probes; (1.2) Safety valve with exhaust air in the water; (1.3) pressure gauge with shut-off valve; (1.4) of the exhaust valve; (1.5) Start-lifting eyebolts; (2) pump used as a turbine; (2.1) submersible alternating current generator; (3) motorized valve with flow regulation; (3.1) on-off valve with pneumatic control; (4.1) suction filter; (5) electric pump with double separate supply until the impeller; (5.1) Double curve with septa crossed separators in low pressure (lp) and high pressure (hp); (5.2) baffles of flow separators; (5.3) pump impeller; (5.4) diffuser of the pump; (6) drive motor of the pump with variable speed, controlled by an inverter; (7) motor or alternator coupling; (8) transmission shaft; (8.1) pipe for the passage of the shaft; (9) check valve; ; (11) electrocompressor with the storage tank (11.1) network for supplying compressed air; (11.2) solenoid valve and check valve of compressed air; (11.3) pressure switch with regulator; (12) network for the electricity distribution ; (13) electric panel and control system; (13.1) electrical system power cables; (14) up transformer for the supply of energy produced to the public network; (14.1) electric cables for transport of energy produced; (15) altitude of the land; (15.1) Maximum water level; (15.2) altitude of the seabed, lake or reservoir.

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Abstract italian demand patent N. 102016000111939 dated 08/09/2016

PRESSURISED SUBMERGED HYDROELECTRIC PLANTS IN WELLS WITH LIFTING AND OXYGENATION.

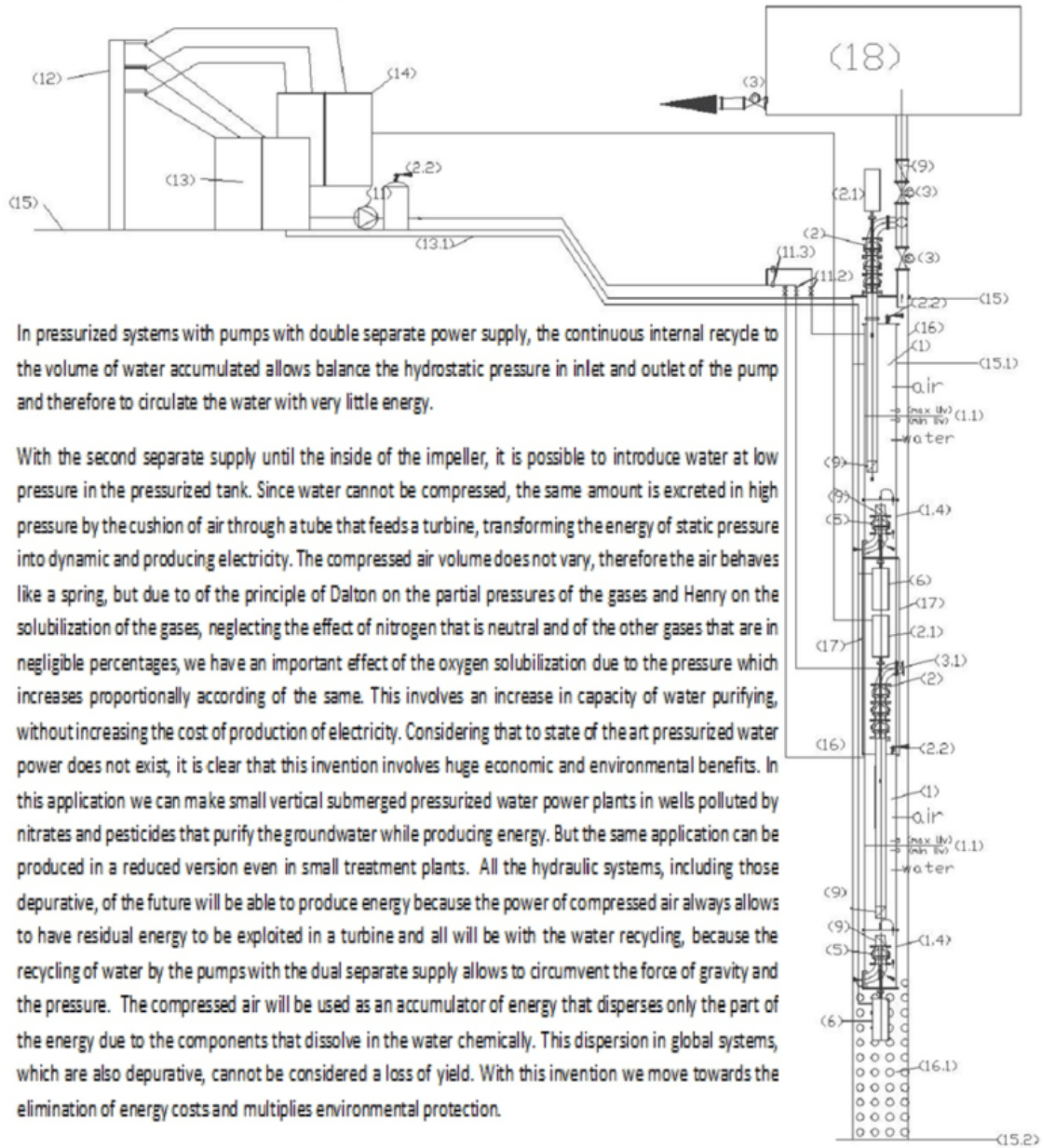
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groundwater while producing energy. But the same application can be produced in a reduced version even in small treatment plants. All the hydraulic systems, including those depurative, of the future will be able to produce energy because the power of compressed air always allows to have residual energy to be exploited in a turbine and all will be with the water recycling, because the recycling of water by the pumps with the dual separate supply allows to circumvent the force of gravity and the pressure. The compressed air will be used as an accumulator of energy that disperses only the part of the energy due to the components that dissolve in the water chemically. This dispersion in global systems, which are also depurative, cannot be considered a loss of yield. With this invention we move towards the elimination of energy costs and multiplies environmental protection.

**PRESSURIZED SUBMERGED HYDROELECTRIC
PLANT IN WELL WITH LIFTING AND OXIGENATION**



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Luigi Antonio Pezone