

EUROPEAN ECONOMIC



DEVELOPMENT COUNCIL



ORGANIQUA®

Being the water the basic element of life; our civilizations, the demographic and industrial progress and the global expansion of man kind on the planet, had dramatically damaged and reduced the available resources on the water reserves of the earth.

EEDC in its Earth Science Research Department is fully committed in the search and funding for the development of paradigmatic technologies that offer a real solution to the process of recycling, conservation and purification of water in all possible segments. This is the reason EEDC has spent years looking for a universal water treatment that represents a huge change in debugging treatment procedures of all kinds of water.

As a result of years of research, EEDC had found this breakthrough technology for which has acquired universal rights for its exploitation and implementation across the globe. ORGANIQUA® (pronounced organica which is the name that identifies this new technology) is by far the most advanced process for water treatment.

Tecnology description.

If we compare traditional debugging system with ORG**ANIQUA**[®] technology system we find immediately the following facts:

Phases of treatmet	Traditional System	ORG ANIQUA [®] System
Storage	Yes, it needs storage that creates costs and additional difficulties.	Yes it needs storage, although at this stage preliminary procedures that calibrate the doses of ozone already begin, so at this stage the large hydrocarbons are already eliminated.
Primary sedimentation	Yes; to brake down the suspended solids by the flocculate system and to maintain control of PH. Some space is needed too for the storage of products and continued control of flocculation. In this phase occurs the first part of the secondary pollution, (especially sludge) the amount of space required is huge	This process is not needed. The ORG ANIQUA [®] plant reduces storage costs, physical space, it suppress all chemicals and reduce dramatically maintenance.
Reduction of oils and fats	This step is necessary not to compromise the debugging system in successive stages, here also occurs secondary pollution (oil and mud that have to go to the drain and then to the landfill)	This process is not necessary avoiding secondary pollution and oils and sludge that would have to go to landfills as well as the ecological and monetary cost this means.
Nitrate Removal	Yes	Yes
Oxidation	Yes, this process uses a very high air volume which makes the installation very expensive, at this stage there is a huge production of sludge which will have to go to drainage and subsequently a landfill	Yes but with ORG ANIQUA [®] using ozone, the volume compared to the traditional system is reduced to a 50 %. Thus, costs is reduced by 50 % and 30 % to 40% less of surface needed. There is NO production of sludge, the few amount of waste becomes inerted, the volume is 9 times less regarding the traditional system without no pollution and with the

		possibility of rare earths being reused. It respects a 100 % the balance of natural ecological system. I.e. zero residual contamination and zero pollution.
Secondary Sedimentation	Yes; the volume of sludge has to go to a drain.	Yes; the product obtained is not mud but a comparable land mineralized compound, this can be discarded without having to go to the landfill.
Desinfection	Yes, it normally uses chlorine or derivatives, there is a secondary contamination because the salinity gets increased by the reaction of the reflux solution. As Chlorine can not properly disinfect correctly it needs space to storage the water and to introduce the chlorine in it.	Yes; using ozone there are no side effects, not increasing salinity. When ozone ends his reaction it is simply transformed in to oxygen! For this reason there is zero degree of dangerousness and 100 % effectiveness in the use of ozone.
Instability to organic load variations	High, there re difficulties for working discontinuously, there is no control of flow of bacteria if it loads too many it may take up to 3 monthsto get disinfected and return to work.	It does not exist, and if load variation, ORGANIQUA [®] system allows a completely normal debugging activity. As an example; this variations affect mainly to tourist cities where the flow is irregular depending on the time of the year. This means that the plant can stop or reduce their activity and to reactivate immediately to free will.
Duration of the life of the bacteria	High, especially in the changes of station and sudden changes in temperature, this can compromise the effectiveness of debugging and generate danger and pollution.	No, since there are only bacterias in the phase of elimination of nitrate. No change of season affects the plant so it either affects the process and totally eliminates viruses and bacteria.
Sensitivity to fats oils and several chemical compounds.	It is very high, if concentraton limits are exceeded, the system does not purges any more.	No, it is not affected. There is a total control and elimination of fats.
Operation Mode	The plant can´t work discontinuously.	The plant is able to work discontinuously and be reactivated at any time.

Possible Environmental disadvantages	High possibility of odors, high production of biological sludge and formation of secondary pollution. It generates untreated waste.	There are no odors contamination, there isn't any biological sludge production, there is no secondary pollution. There aren't any waste residuals, the plant has 100 % of health control.
Maintenance	If the plant is not scrupulously monitored at least every 15 days, there is no certainty of the quality final effluent.	Record the values with the most strict European Union legislation, monitoring is necessary only every 6 months.
Use of Chemicals	Yes, it uses chemicals such as chlorine, chlorine dioxide acid Peracetic, etc., therefore there is an increase of investment in facilities for doses, reviews, monitoring, maintenance and use of chemicals and not natural products.	Nor a single chemical is ever used. Plant is free from chemical or natural contamination. This system only works by physical procedure, ozone and magnetic fields.

EFFICIENCY RATIO:

The ratio of productive and social efficiency (benefit for health and the environment) and economic (profit for the operator or user of the plant) shows us the following:

1. In a table of 100 m³ treated by traditional technology we get 10 m³ of purified water and a residual 90 m³ not purged and residual sludge.

In the ORGANIQUA[®] system of 100 treated m³, we get 90 m³ of purified water and 10 % of inert sands and zero production of sludge or dangerous residuals, besides it saves up to 70% off in management and operation costs.

ORGANIQUA[®] is nine times more productive and more efficient and 100 % cleaner, not producing waste sludge or damaging elements, except 10 % of inert land that in some cases and depending on the composition of water allows us to generate fertilizers and by-products of immediate use for industry or fields.

2. Savings rates table.

Number of inhabitants or m3/day	Construction surface	Costs in Italy	Type of water to treat	Effective power required	Operation and management savings.
75 inhabitants 15m3/day	60 m2	98,000 €	Civil residuals	5 Kw.	Aproximately - 70 % off from the traditional
5,000 inhabitants 1,000 m3/ día	600 m2	2 millions €	Civil residuals	70 Kw.	Aproximately - 70 % off from the traditional
50,000 inhabitants 10,000 m3/day	28,000 m2	20 millions €	Civil residuals	420 Kw.	Aproximately - 70 % off from the traditional
100,000 inhabitants 20,000 m3/day	45,000 m2	38 millions €	Civil residuals	950 Kw.	Aproximately - 70 % off from the traditional
500,000 inhabitants 100,000m3/day	95,000m2	138 millions €	Civil residuals	2,900 Kw.	Aproximately - 70 % off from the traditional
1 millón inhabitants 200,000 m3/day	150,000 m2	200 millions €	Civil residuals	4,800 Kw.	Aproximately - 70 % off from the traditional

75,000m3/year	2,200 m2	2,590,000 million €	Leached *	106 Kw.	Aproximately - 70 % off from the traditional
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*** The leached is the most complex to treat from all elements, all the technologies are very poorly effective, very expensive and very polluting.**

Note: Take into account that this information is generic and not a formal offer since prices and conditions should be calculated and specifically considered in a case-by-case basis as well as topographic conditions.

Additional Facts:

- With all these amazing achievements described in the preceding paragraphs, the cost-benefit balance sheet represents in the case of ORGANIQUA® a formidable difference versus any other technology in saving energy, elimination of pollution, cost of water and benefit to the operator, the user and citizens. ORGANIQUA® makes a titanic difference in benefit for the proper conservation and truly scientific recycling of water on the planet.
- Having no chemicals the ORGANIQUA® water is pure and balanced and has the force and energy to dissolve to such a degree that in the case of drinking water produced by Organiqua can be used directly for the washing of textiles or home utensils without having to apply detergents since this technology increases dramatically dissolving capacity, water is returned to its natural state as were the waters of the planet thousands of years ago.
- There is a great problem of residual contamination in a huge number of industries that despite the effort, dedication and responsible use of various resources, cannot under any circumstances prevent the waste discharge of pollutants collateral or secondary to rivers, seas or fields depending of the legislation. This technology will allow them to act with the greatest industrial and ecological responsibility with zero degree of waste of pollutants or being dangerous to landfills.
- While it is true that the laws of responsible countries act severely, comes a time in which all regulations is only palliative and confront a technological difference and the dichotomy of progress versus destruction of the planet or natural resources, solution has been found in science and new technologies that allow us to overcome this contradiction and be resolute and not palliative, such is the case we propose with this new technology.
- The system has a dual monitoring since apart from being controlled by a minimum number of people in situ, it is also controlled online in real time at the Central. It can instantly inform from the central any variant anywhere in the world where the plant is and also to have a 24 hours available team that could go anywhere in the world as a unit of immediate assistance.

Organiqua can operate at 3 levels or different segments:

1. building new plants of last generation
2. modifying existing plants in a short time increasing their productivity and reducing costs dramatically without having to stop them.
3. Making specific or final modifications (as in the case of Brewers to treat final waste waters that haven't been able to be properly recycled.)

Table of some of the substances and items that you can debug with ORGANIQUA®.

Aluminium	Silver	Ammonium
Barium	Bromine	Bicarbonate
Boron	Cadmium	Cyanide
Chlorine	Chromium	Iron
Fosphate	Magnesium	Manganese
Mercury	Fluoride	Nickel
Nitrates	Nitrite	Lead
Potassium	Silicon	Sulfates
Copper	Selenium	Strontium
Detergents	Organic	Glucose
Virus	Bacteria	limestone

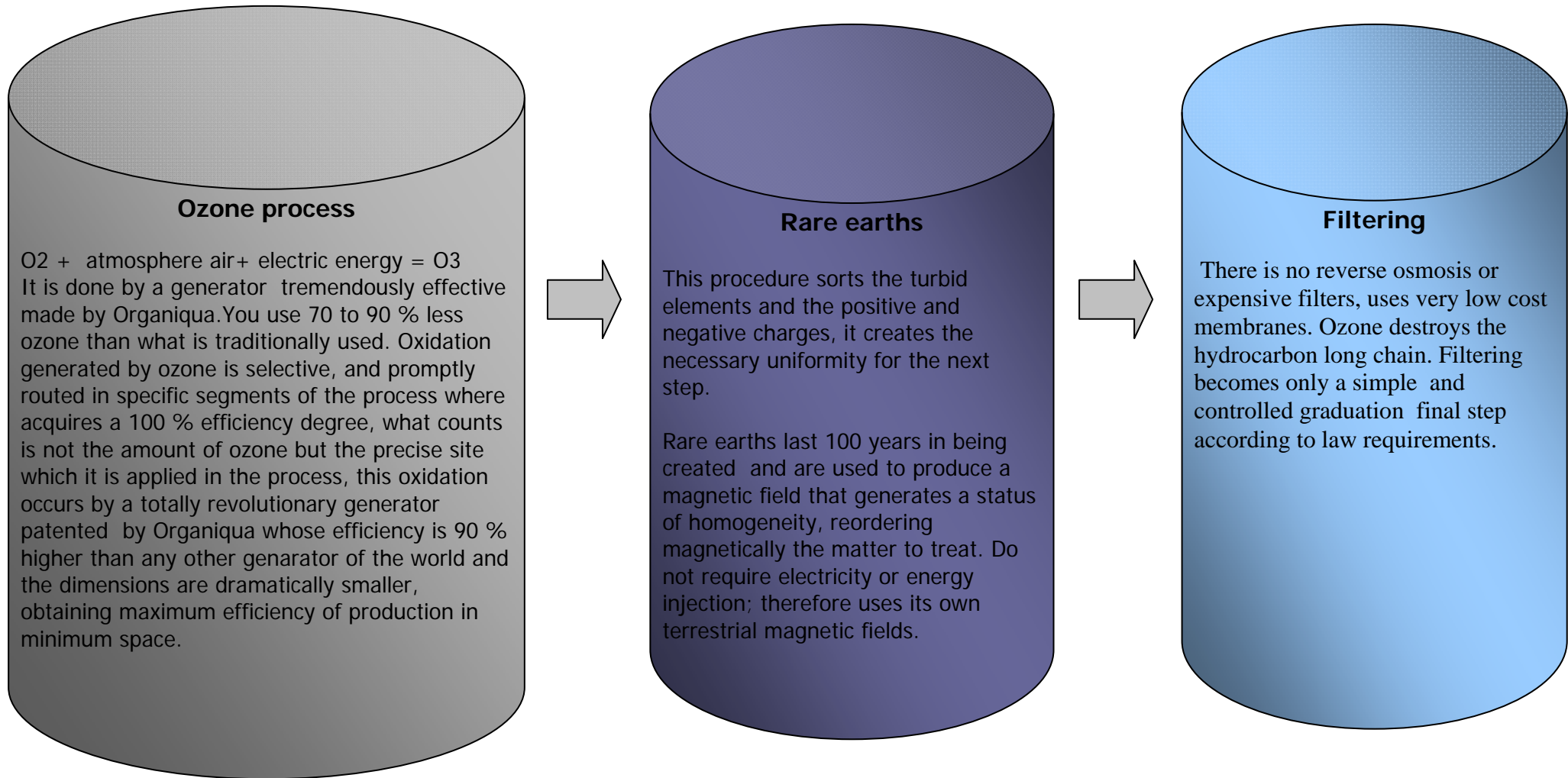
As single fact with the Organiqua system the legionella is completely eliminated and deleted from the water of hospitals, clinics and health centres.

With ozonation all metals precipitate in sand or inert sands, however ozonation and magnetization have never been fast processes or processes in real-time, with this technology they become a simultaneous process and at the speed of the pass of water or the liquid to be treated.

Apart from Leached residuals another difficult element to be debugged is the recycling water used for the production of olive oil however, ORGANIQUA® supports the process with magnificent results.

One of the problems facing brewing industry is that although they possess modern technology in the treatment of its waters, these even contain NA (sodium) and is unacceptable for agriculture, waters should be poured into the rivers. Organiqua has capacity to debug this water at very low costs in order to be employed in agriculture and fields or to be used again in the industry itself.

Process and operational structure of the debugging ORGANIQUA® plant.



The sectors where ORGANIQUA® a technology can be applied are:

- Leachate
- Urban waste water
- Waters of all industries, among which we can find:
 1. - chemical and pharmaceutical sector
 2. - meat and derived sector
 3. - textile sector
 4. - wood sector
 5. - milk sector
 6. - paper industry
 7. - food processing industry
 8. - biofuels industry
 9. - canning and fish industry
 10. - wine sector
 11. - Metallurgical sector
 12. - petrochemical sector
 13. - distilleries and alcohols
 14. - oil industry
 15. - breweries
 16. - tanneries
 17. - touristic sector (hotels, golf, etc.)
 18. - amusement parks
 19. - residential sector
 20. - mining and especially the treatment of mercury and other metals of difficult treatment.

ORGANIQUA® Water Purification System Briefing

The ORGANIQUA® water purification system is a natural solution that avails itself of nascent ozone with generators manufactured by ORGANIQUA® sintered rare earths and tangential flow filtration within special hydraulic and areaulic circuits. The purpose of this patent is to make available a purification system for every type of water.

This system eliminates the production of polluting residues and the related disposal operations. It also reduces spaces and volume by around 50% compared to traditional system and its technology can be also integrated in existing systems, making them enviromentally sustainable and increasing thei treatment capacity.

The most meaningful advantages are:

1. No chemicals
2. No salts
3. No reverse osmosis
4. No secondary pollution (barring the exceptional occasions on wich volumes are 7-10 times lower than in traditional systems)
5. Low energy cosumption
6. Low Management costs
7. Reduced building spaces and volumes (up to 50% less)
8. Guaranteed results in time
9. Financial Sustainability

The ORGANIQUA® system can be operated by remote control and with its optional dedicated solar panels, it is fully energy-independent; it is therefore an ecological, free energy system, the most cost effective, dependable and efficient worldwide.