

Processing systems

Waste - Water



CLEAN WATER GROUP

RECORD

The CWG company founded for providing best technology in water and waste water processes in growing EU and World market for solving water issues.

Being one of the few companies that were active in this field, we set from the beginning of a solid foundation for future expansion of our company, applying technical approach and possibility of Marketing / Management structure.

In an effort to upgrade the quality of construction and services offered we founded in 2000 our engineering company in Greece, which specializes the construction of waste treatment systems and water as well as in the manufacture of a wide spectrum equipment, applying apode-pointed reliable technologies, known worldwide.

Since its inception we improved our work and technology expertize accordance with the certified and working International.

Quality Standard - **ISO 9001: 2008** – ISO 14001:2004 and OHSAS ISO 18001:2007 for design, Construction, Installation and Construction Maintenance related to:

- > Water processing
- > Wastewater Treatment
- > Solid Waste Processing
- > Air Treatment

The development of our company internationally, founded and also operate subsidiaries accros Europe and Australia.

BASIC TARGET

Constant goal of our group is to offer projects and high quality services are combined ing to achieve the requested results best results, applying advanced technologies. The reduction in operating costs and simplicity of operating system are key elements of design.





ACTIVITIES

The principal activities of the CWG is focus on Design, Construction, Installation, Mode and systems maintenance:

- > Processing Industrial or Urban Wastewater
- > Water Treatment for industrial or municipal use
- > Processing Biological or Chemical sludge
- > Anaerobic Treatment of Organic Solids and Energy Production
- > Composting Organic Solids
- > Supply of equipment and spare parts
- > Supply of microorganisms to improve biological treatment

The CWG has particular expertise in:

1. Extend or upgrade to existing systems to avoid the need for additional tanks:

- > Adaptation to the requirements of the new legislation depending on use
- > Re-use of treated liquid (RECYCLE)
- > Minimizing operating costs

2. restoration and remediation of the proper operation problematic installations.

3. Technical support and monitoring of good operation of the plant after delivery.

If necessary we offer to our customers opportunity to:

- > Laboratory tests
- > Pilots on the project site

Home visit to the project, evaluation and reporting proposals without charge.

HOW OPERATE

In all our projects we prepare detailed plans with full drawings and information on the characteristics of the equipment. Where necessary we supply the relevant study for submission to the competent authorities or consulting engineers. Construction project monitor civil works non-mechanical to ensure the correct implementation of our plans and predict the positions for future electromechanical installation. The supervising engineer always supervises our technical parts to ensure high quality standards. After the installation the equipment is tested on a small process volume, and turns the system fully delivered to the customer.

Detailed Operation and Maintenance manuals, spare parts list and all relevant documents are delivered to the customer as also made the relevant customer staff training in the functioning of the unit.

If requested, our Company undertakes to support cross procedures for the approval of the project planning from the competent services.

Our company remains at the side of the customer and available for technical advice and support and after commissioning and delivery of the project.

WHAT WE OFFER

The combination of the introduction of the basic equipment of our company CWG, which represents exclusively the best known factories abroad and construction of special equipment from the market we ensure further operable economical pretenders. Thanks to our high Expertise, the experience of our scientific staff and laboratory simulations possibility we have the ability to plan and to build effective, flexible but also more economical in operation facilities (OPEX), adaptable to your requirements.

In any case, the basic goals of plant design is the achievement of effect with the lowest possible cost (CAPEX) operation and the simplest possible operation. Our extensive experience in mechanical field and manufacturing is guaranteed with Our staff with very big experience in field of Water and Wastewater Treatment.

Our technicians are also highly skilled and experience and always work under the supervision of our Engineers. continued investment in new technologies and the return information from existing installations are the key elements of successful applications.





SERVICES AFTER THE SALE

Our company offers customers excellent technical support and after delivery of the project to:

- › Monitoring of the proper operation of the unit during periodic visits.
- › Continuous training of operators and customer Engineers responsible for the unit.
- › Continuous guidance and advice for the maintenance of the equipment.
- › Support to public authorities, when necessary.

APPLICATIONS

Our Company applying as necessary the best methods and processing techniques, is designed CAM construct or upgrade process-systems all of the following categories:

Our Company is one of the few European Companies with experience in this field.

INDUSTRIAL PROCESSING WASTE

- > Food Industry
 - > Meat or fish processing
 - > Stationers
 - > Dairy and Cheese
 - > Juice industries and compost
 - > Industries Canning
 - > Beverage Industries
 - > Slaughterhouses
 - > Piggeries
 - > Cosmetic Industries
 - > Industries Detergents
 - > Stationers
 - > Edit chemicals and oil
- And other...

TREATMENT OF URBAN WASTEWATER

- > Cities and towns
- > Communities
- > Hotels - Tourist Units
- > Prefabricated Units

ANAEROBIC TREATMENT ORGANIC WASTE

Biogas and energy production units:

- > Industrial waste
- > Pig manure - cattle etc.
- > Municipal organic waste

DRINKING WATERS

- > Drinking water treatment for municipalities, Communities, Hotels and smaller applications
- > Water Treatment for industrial uses

ORGANIC SLUDGE TREATMENT

- > Dehydration sludge
- > Sludge Drying

COMPOSTING

- > Poultry manure
- > Pig and Cow farms
- > Other types of organic sludge





RECOMMENDATIONS

The list of our works carried out in market and the external party, from 1978 to date, covering over fourhundred projects (480) completely works designed and constructed by our company is at your disposal upon request.

During all these years, we expanded activity our ties to international markets and our assigned project pipeline in Europe (Poland, Romania, Serbia, Bulgaria, Albania), Russia, Arab Countries (Jordan) and Africa (Nigeria - Rwanda - Uganda).

Processing INDUSTRIAL WASTE

Industrial effluents are considered those liquids which are generated during the production process as by-product of industrial that usually contain residues of materials used.

Different types of treatment technologies selected from our experienced Engineers, attached in cases importance to the specific technical and economic requirements each project.

The purpose of planning is always the option of "OPTIMAL" Technological process design.

Our long experience, the possibility of pilot testing and possible simulation available to the Company, with our close co-operation with certified and reliable laboratories, ensure the correct and safe design, as well as the successful long term operation of the WWTP system.

Our prediction for future upgrade or extension systems the result of the application of stricter environmental regulations or due to increasing hydraulic and organic loading. It is a common practice of our scientific staff, during the phase of project planning.



- 1., 2. Reservoirs
- 3., 4., 5. Method adherent biomass (trickling filter, MBBR)
6. Combination MBBR treatment process - Activated Sludge
7. Method biological treatment Activated Sludge
8. Method membranes
9. Combination Viopyrgos MBR treatment process - Activated Sludge
10. Edited "clean" liquid at outlet



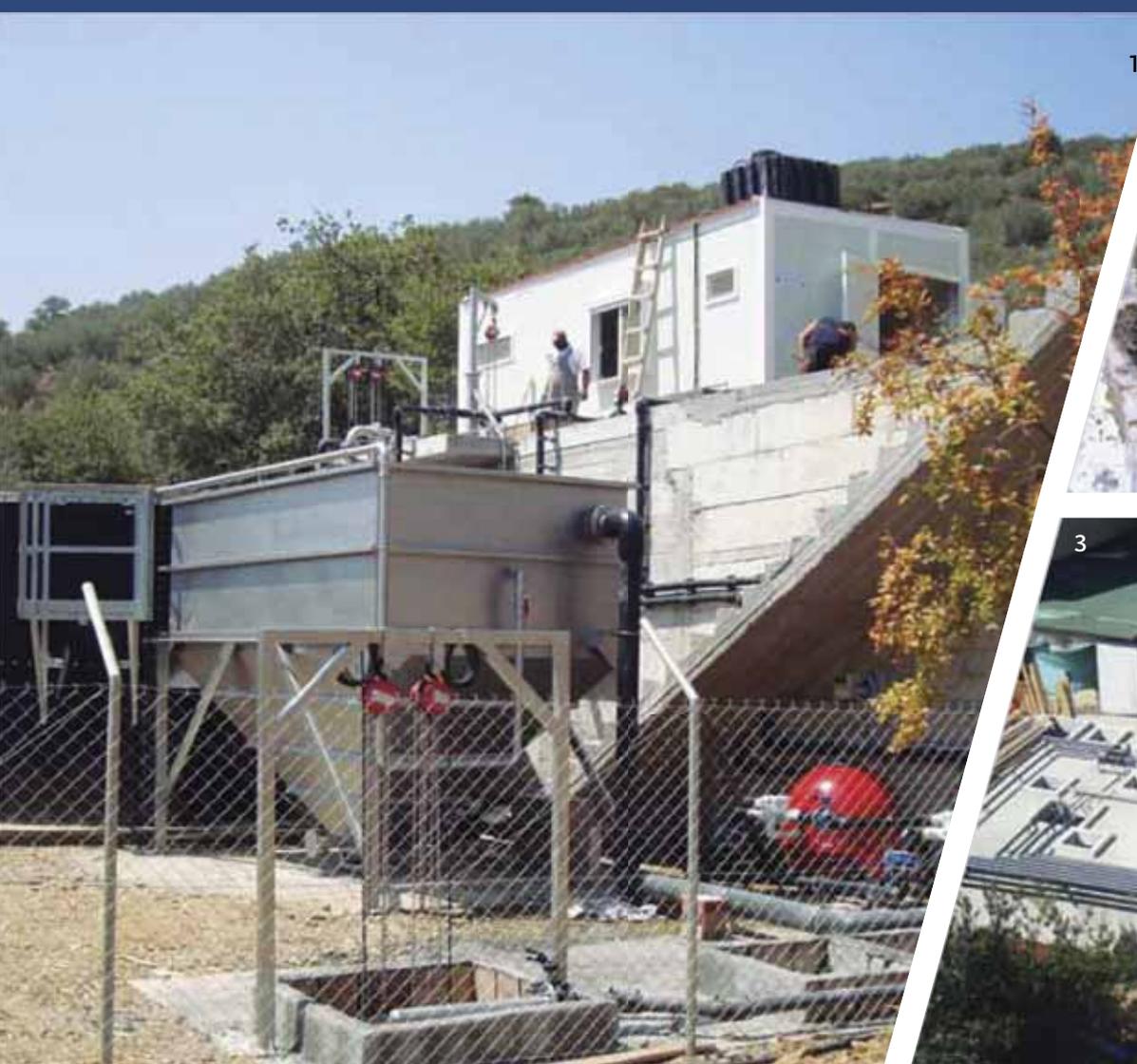
Processing URBAN SEWAGE

Our Company provides various secure and flexible solutions treatment of urban waste water, which combine high performance and safety to achieve the required results with low energy cost and easy mode.

The possibility prefabricated (compact) units are coming available so that potential problems like lack of space or licensing for Civile works are history.

The main objective of selecting the best technology by around case, is to meet the requirements of the legislation, developing on the needs of the end customer.

The RE-USE of treated liquid and simple economical operation of the systems are the basic conditions ments of our designs.

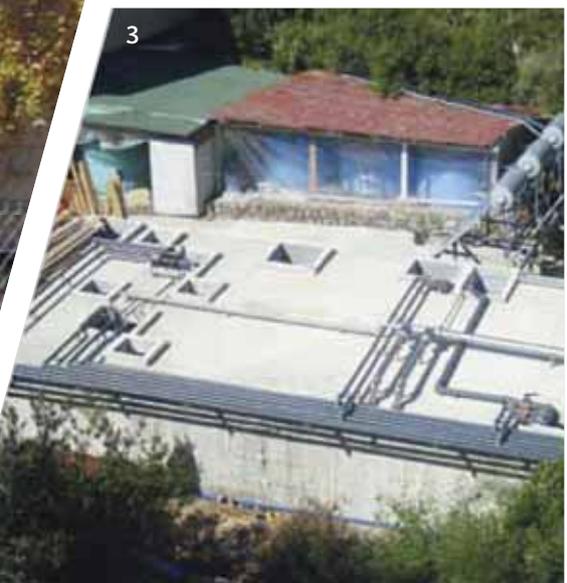


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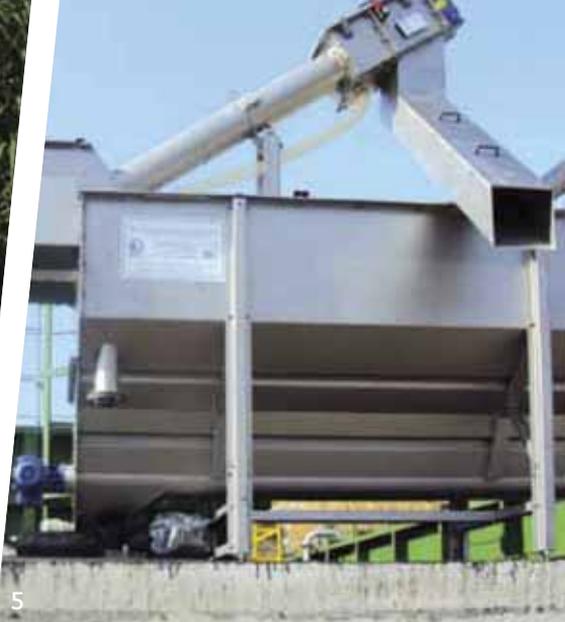


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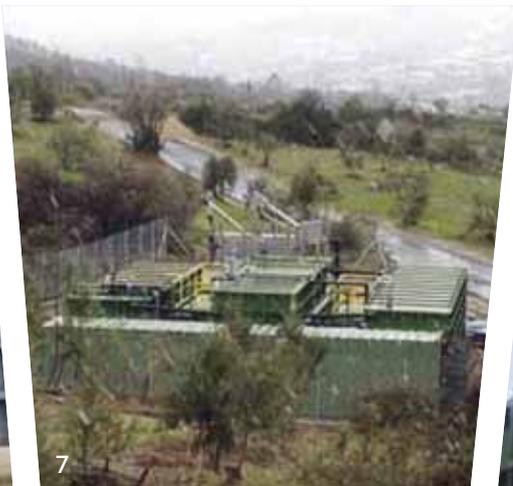
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1. Municipality Amarianos - Kastamonitsa (MBBR)
2. Municipality Kea (MBR)
3. Hotel Solei & Sea (Activated Sludge)
4. Municipality of Tinos (MBBR)
5. System pretreatment (scab - Liposyllogi - Ammosyllogi)
6. Municipality Stenimachos (MBR)
7. Municipality Diana Ilia (MBR)
8. Prefabricated tank
9. Shopping center McArthur Glen (MBR)
10. Prefabricated compact biological purifying

Construction

A SPECIFIC EQUIPMENT

The CWG group manufactures its own premises and own projects, all specialized images and stainless steel constructions involving projects, and also prepares the equipment to be installed.

Long-term experience of our Technical in construction and the existence of the relevant infrastructure, ensure high quality products and shorten delivery time of Project.





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1. D.A.F. Unit
2. Kollektor pumping station
3. Silencer
4. Equipment sludge thickening tank
5. Prefabricated engine
6. Conical tank
7. Prokathizisi precipitation by rapid precipitation data (Lamella)
8. circular sedimentation tank equipment
9. Self-cleaning grease



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Processing WATER

Clean water is absolutely necessary for the preservation of human and other life forms as well also its use in industry and other procedure.

The combination of the Company's experience with high quality equipment of the largest International construction firms with whom have synergy provides the ability to offer high quality, flexible and above all economic solutions suit customer needs.

The design and our applications vary from one complex Urban or Industrial processing unit water to a single application or professional application.

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1. Filtration
2. Rapid precipitation with lamella
3. Compact unit industrial water treatment
4. Induration
5. Softening Unit drinking water treatment urban

Anaerobic treatment WASTE

The method of anaerobic treatment, is an alternative method of treatment of wastewater in which the degradation of the organic components shall be the absence of oxygen. Unlike aerobic processing, the main product of anaerobic digestion is methane CH_4 (instead of CO_2).

It is widely used for processing waste with high organic load as offering significant advantages such as the small space requirement, low operation costs, less sludge production, production Biogas for exploitation etc.

Additionally, depending on the quantity each case, the unit can support itself to provide enough "GREEN" energy in various applications such as steam production, water heating, electricity etc.

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1. Heating boiler
2. Anaerobic digester organic waste (PICOVIT - Romania)
3. Anaerobic digester organic waste (KREKA - Kavala)
4. Anaerobic wastewater waste (VPI - Volos)
5. Torch biogas combustion
6. Anaerobic wastewater treatment (TASTY FOODS - Athens)



Management SLUDGE

The management of sludge is a very difficult and important secondary problem. Every year related environmental regulations are becoming increasingly stringent, while the cost of treatment and disposal of sludge is important.

The CWG may select and provide very interesting solutions where appropriate, regarding the:

- > Dewatering sludge
- > Drying of sludge
- > Composting of sludge and mill conditioner

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1. Dehydration sludge with belt filter
2. Dried
3. Dehydration mud sludge by centrifugation
4. Belt filter press
5. Pressed sludge drying unit (IST)
6. Composting
7. Prefabricated compact sludge dewatering unit



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Our projects speak for us

MORE THAN 480 PROJECTS DESIGNED
MADE BY US

CWG business friends all over the world



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