

## **DIAMOND WATER SOLUTIONS**

Environmental Consultants (ISO-9001-2015)

# Sustainable solutions for cleaner, greener better world!

Diamond Water Solutions is a firm specializing in environmental protection technologies.





## **Diamond Water Solutions**

Diamond Water Solutions is a firm specializing in environmental protection technologies. We provide a one-stop-shop solution to water & waste water services requirements specializing in following areas:

Sewage Treatment | Reverse Osmosis | Effluent Treatment | Water Treatment |

Our designs ensure efficient results that care for Environment through our water & waste water services, solid waste treatment designed to suit specific customer needs, following local norms adhering to latest MPCB & CPCB codes and standards. Diamond Water Solutions will deliver fully-integrated environmental solutions to virtually all industrial, institutional, commercial, municipal and residential sectors.

Diamond Water Solutions supplies integrated packaged water and waste water treatment plants, turnkey projects and project engineering. Plants are tailor made to meet specific requirements achieving the highest standards of workmanship, reliability and cost effectiveness. Our experienced staff, excellent service approach and quality workmanship with use of fine technology have helped us to succeed.

Our in-depth industry knowledge helps us to perform within time, space, budget limits and successfully handle the demand of various services such as troubleshooting of Water Purification Plants and Sewage / Effluent Treatment Plants. After sales service contracts are offered to ensure maximum plant efficiency and reliability.



#### Mission

Diamond Water Solutions is dedicated to bringing the most valuable solutions and providing the best customer experience in meeting water and environmental needs through our innovative technology solutions, products and services by making deep positive contributions to industry, society and the environment.

#### Vision

Environment preservation and conservation is need of the hour. We believe it is our moral responsibility to return a better planet to our future generations and Diamond Water Solutions shall endeavor to deliver technologies, products and services that shall achieve this vision.

We are committed to meet or exceed our customer's expectations by

- Continuous improvement on Idea Cycle and Knowledge Management
- Defect free product quality
- Exceptional customer service and after sales services
- · Flawless execution and start up commissioning



#### **SEWAGE TREATMENT PLANT**

We offer our clients a quality range of Domestic Sewage Treatment Plant that is used to purify water so that it can be reused for gardening and flushing purposes. These plants are rugged in construction and are also useful in treating waste coming from residential and commercial complexes. Type of STP, design and technology depends on site's condition, availability of space and type of project etc. We offer various technology as below.

FAB / MBBR - Fluidized Aerobic Bio-reactor / Moving Bed Bio-

Reactor technology employs thousands of polyethylene biofilm carriers operating in mixed motion within an aerated wastewater treatment basin. Each individual biocarrier increases productivity through providing protected surface area to support the growth of heterotrophic and autotrophic bacteria within its cells. It is this high-density population of bacteria that achieves high-rate biodegradation within the system, while also offering process reliability and ease of operation. This technology provides cost-effective treatment with minimal aintenance since MBBR processes self-maintain an optimum level of productive biofilm which automatically responds to load fluctuations.



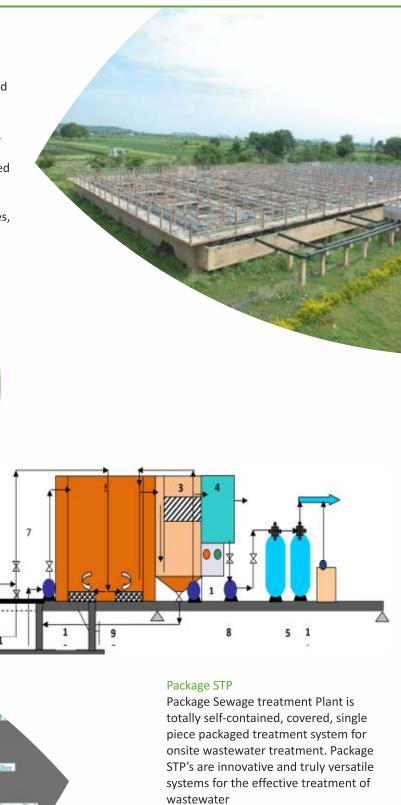
#### **Extended Aeration**

The raw sewage goes straight to the aeration tank for treatment. The whole process is aerobic. This simplification implies longer aeration time which has earned for the process the name "extended aeration". The BOD removal efficiency of the extended aeration process is higher than activated sludge process which makes it especially desirable to use where it is to be followed by tertiary treatment for reuse.



SBR - Sequential Batch Reactors treat waste water such as sewage or output from anaerobic digesters or mechanical biological treatment facilities in batches. Oxygen is bubbled through the waste water to reduce biochemical oxygen demand (BOD) and chemical oxygen demand (COD) to make suitable for discharge into sewers or for use on land.

MBR - Membrane Bio Reactor is a biological system coupled with a membrane to enhance solid-liquid separation and filtration. The membrane is made of cost-effective nonwoven fibrous material. It has many outstanding properties, such as controllable pore sizes and easy fabrication of the membrane module to achieve the desired surface area





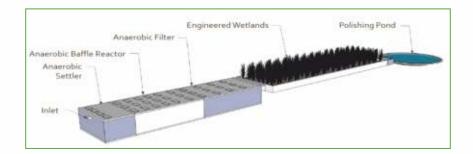


## EFFLUENT TREATMENT PLANT

The comprehensive treatment solution works at various levels and involves various physical, chemical, biological and membrane processes. We also provide effluent treatment solutions for various types of industrial chemicals, drugs, pharmaceutical, refineries, dairy, automobiles & textile, food etc. These systems include physic-chemical treatment, biological treatment, tertiary treatment and membrane separation process to achieve the zero-discharge standards laid by statutory authority.

#### WETLAND WASTE WATER TREATMENT SYSTEMS

Wetland wastewater treatment systems mimic natural wetland ecosystem for purifying water. Reed beds are used for providing oxygen to the sewage instead of air blowers making the system a low cost, low maintenance and robust system. Wastewater treatment consists of following modules: (1) anaerobic system, (2) aerobic system and (3) disinfection system.



#### **SLUDGE HANDLING**

Sludge treatment has two objectives the removal of part or all of the water in the sludge to reduce its volume, and the decomposition to relatively stable organic solids. There a re primarily three technologies to manage sludge:

- Centrifuging
- Filter press
- Composting





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#### **FILTRATION SYSTEM**

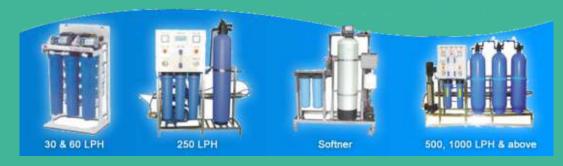
We offer a wide range of media filters which includes Pressure Sand Filters and Activated Carbon Filters softener Dual Media filter. All of our filters are used to remove turbidity, chlorine, phenol, COD/BOD, hardness and organics, de-chlorination, improve taste, odor reduction etc.





# **SOFTENER and DM (DEMINERALIZATION) PLANTS**

Water is considered 'hard' when it has excessive levels of calcium and magnesium dissolved in it. Hard water can be treated using Water Softening process.



# WATER PLANTS RO (REVERSE OSMOSIS) PLANTS

Ultra filters and reverse osmosis is a water purification process that forces solvent from a region of high solute concentration through a membrane to a region of low solute concentration with the application of pressure more than the osmotic pressure

## **DOMESTIC RO SYSTEM**

We are prominent manufacturers of a wide range of Domestic RO Systems in multi range including small apartment units to office, institutional and large scale residential units. Diamond Water Solutions provides all range of Domestic RO Systems at reasonable prices. Our main aim is to give better Domestic RO System to our Customer.







#### **WATER ANALYSIS**

Water is vital element that supports the life of all creatures on the earth. Various kinds of natural and manmade activities e.g. industrial, domestic, agricultural, transportation etc. are creating problem of water pollution. Therefore the environmental laboratory has to serve for three main purposes in this section as below,

- Testing of water quality from natural or artificial sources.
- Testing of wastewater, sewage, effluent etc. and providing guidelines for its management
- Suggesting methodologies for reducing, reusing and recycling of water resource.

## ETP/STP Operation and Maintenance Services

We have created a niche in the market and are engaged in conducting Operation & Maintenance Services for E.T.P./S.T.P., up gradation of existing E.T.P/ S.T.P. These services are known for excellent quality and are offered 24/7 for servicing and overhauling of treatment units and also provide proper help in preventing breakdown of plants.



## **Maintenance Service are:**

- Open 365/24/7
- Expert professionals to take care of each problem
- Training facilities
- · Customized solutions & timely delivery of both products and services

#### CONSULTANCY

Diamond Water Solutions has a core forte in environmental engineering design. As such UEPL can provide consultation apart from turnkey jobs in following areas:

- Design, Engineering & Commission Inspection of STP/ETP/WTP
- MOEF and EIA consultancy
- Inspection, Monitoring and AMC
- Operations and maintenance contracts for STP/ETP/WTP
- Re-commissioning of STP/ETP/WTP plants
- Waste Water Recycle & Zero Discharge Systems



#### **CLIENTS**





















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