Effluent Treatment Plants

We, at Wasser Welt Technologies offer pre fabricated MS FRP package waste water treatment plants (upto 150 kld, higher capacity in RCC, GST) to custom built, tailor made to suit your space and need. The treated waste water can be used for industrial process, floor wash, toilet flushing, gardening HVAC requirement. We offer zero discharge treatment scheme also for 100% treated water for recycle reuse and sludge generated out of this process, should be disposed off as per Pollution Control Board Standards.

Sewage Treatment or Domestic Waste Water Treatment

It is the process of removing contaminants from wastewater both runoff (effluent) and domestic. It includes physical, chemical and biological process to remove physical, chemical and biological contaminants, make water suitable for safe discharge into environment or reuse and recycle. Typically sewage treatment involves three stages of treatment—Primary, Secondary and Tertiary treatment. First, the solids are separated from the wastewater stream. Then dissolved biological matter is progressively converted into a solid mass by using indigenous, water-borne microorganisms by aerobic or anaerobic biological process. Finally, tertiary treatment involves removing fine particles, objectionable odors harmful bacteria by filtration followed by disinfection thus making waste water suitable for reuse and safe handle viz., gardening, flushing toilets or any other non potable use.

We, at WWT offer following biological plants viz,

1. Extended Aeration System (EAS)—conventional method
2. Sequential Batch Reactor (SBR) – by using decanter principle
3. Moving Bed Biological Reactor (MBBR) – by using fluidized media
4. Fixed Biological Reactor (FBR) – by using corrugated fixed media.

WE UNDERTAKE TURNKEY PROJECTS FOR

● Industries/Plants/Manufacturing Units.
● Builders/ Real Estate Developers.
● Housing Societies/ Commercial Complexes/ Townships.
● Hotels/ Retail/ Laundries/ Swimming Pools/ Hospitals/ Commercial Establishments/
  Corporate / Service Sector/ Airports/ Education Institutions.

WASSER WELT TECHNOLOGIES

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About Us
We are a group of environment domain and specialist, engineers with more than 20 years of experience from concept to completion in providing solution for domestic and industrial waste water, water treatment. Our dedicated team and facility develops tailor made solutions to your pollution needs and requirements. We are involved in manufacturing and system integration, in-house built systems and carry out installations for pollution control as per the statutory requirements.

Our Mission
To convert available source of water to the specific quality of water required by:
- **Industries**: For processes like manufacturing, service utilities
- **Individual and Community**: For personal hygiene (cleaning, washing), health (drinking, cooking) and recreational activities (swimming pools, spas).

Environment and Life: To treat industrial effluent and give back the environment, pollution free clean water. This is achieved by superior engineering and innovation, coupled with stringent control practices to provide the best purification system.

Reasons to Treat Water
Nowadays, water is more precious than gold or silver, a little more crucial than petrol and as vital as oxygen. Today we know that 75% of the world’s fresh water resources are contaminated. The remaining is fast disappearing. Let us conserve water by art, science and treating it by engineering technologies. Soon how well we live will depend on how well we conserve water. Technology has advanced enough to offer us choices in water conservation.

Water may be treated for various reasons, depending upon its source and the consumer’s requirement.
- **Hard water** (containing minerals, salts).
- **Due to presence of minerals** water may not be effective for industrial use. For instance, some industries like Pharma, beverages, injectibles, etc., require large quantities of stringently monitored, pure, deionized water.
- **Most industries use boilers which need minerals-free water**. Minerals in water can corrode/kindle metal containers (calcium deposits) at high temperatures which, in turn, can decrease efficiency and escalate the cost of utilities.
- **Water quality** is unappealing/poisons health hazard
- **Availability water** may have unappealing taste, odour and colour.
- **Raw water** may contain disease-causing pathogens that can put the individual’s health at risk or the community’s at an epidemic.
- **Other undesired elements** in water could be chemicals and Total Dissolved Solids (TDS). These can hamper industrial production, affect the quality of final products, or pose serious risks to health.

Types of Water Treatment
Today, we can convert any quantity of water to the quality we need for the usages. Some of these methods are briefly described below:

**Sand Filtration**: Sand filtration is coarse filtration, commonly used to remove either floating or suspended or easy settling impurities which may vary in particle sizes.

**Activated Carbon Filtration**: Granular activated carbon is a technology that reduces excess-free chlorine, odour and to some extent organic matters and refractory organics.

**Chlorine Dosing Systems**: This is the simplest and most commonly used disinfection system worldwide. Chlorine can be applied for the deactivation of most microorganisms and to remove E-coli.

**Ultraviolet Treatment (UV)**: Modern UV systems use a UV lamp around which passes the untreated water. The UV light kills the nuclei of pathogens, which effectively neutralizes them.

**Reverse Osmosis (RO)**: Reverse Osmosis is considered to be the most effective treatment system. By this method, water great pressure is forced through a semi-permeable membrane to exclude most contaminants.

**Ozone Treatment**: Ozone treatment oxidizes organic contaminants in much the same way that chlorine does. The ozone process entails the production of ozone by ionization of oxygen using a high voltage electrical discharge.

**Ion Exchange Technology**: In this technology, minerals that exist in water in the form of charged ions are neutralized by a resin bed that contains oppositely charged ions.

**Ultra-Filtration (UF)**: Ultra-Filtration like reverse osmosis involves cross-filtration flow. UF membranes are made specially to remove particulate and organic matter by sieving process. Most particulates, organics, bacteria and macromolecules larger than the filter’s membrane are removed by ultra-filtration.

While these are effective technologies to provide treatment solutions, there is no single technology that can wholly and effectively resolve all of the possible water problems. Depending upon the quality of water available, we at WWT develop a customized combination of technologies to treat the specific problems at hand.

**Customized Solutions**
Water problems are not unique, and hence we at WWT follow a thorough understanding of your water problem, a systematic approach to the solution and a meticulously thought-through the design of treatment plant, to ensure the quantity and quality of water required.

Tell us your water problems, tell us your requirements, we’ll bridge the gap effectively.

**Water Analysis**: Once we understand your water problem, a series of tests are conducted and a detailed report of water is generated.

**Tailor-made Solutions and Treatment Plant Engineering**: Once the report is generated we will bridge the gap between your water problems with our solutions. Thus begins the procedure for designing your own unique treatment plant.

**Installation, Examination & Monitoring**: The custom designed plant is now ready for installation.

**Industrial Treatment Plants**:
Water is universal solvent, it easily combined with organic and/or inorganic matter but little difficult to bring to its original state. By engineering technology, methods, it can be treated and recycled. Thus it is reversible reaction in most of the cases.

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**Diagram:**
- Water + Unwanted Substances
- By Your Process
- Polluted Water (Effluent/Discharge)
- Pure Water + By-Products
- Recycle
- By Our Process

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