An ISO 9001-2008
Certified Company

Aaradhya
Enviro Tech.

CLOSE THE LOOP

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ONE STOP SOLUTION
FOR WATER & WASTE WATER
TECHNOLOGY

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CLOSE THE LOOP

SEWAGE TREATMENT PLANT (STP)

MBR System for STP

MBR is an indigenous technology developed to meet stringent treated water quality for sewage and industrial effluent. MBR is a membrane reactor based design for biological treatment of waste water.

MBR operates on the principle of biological/bacterial treatment. Raw untreated wastewater is sent to MBR reactor using a pre filter screen to prevent any larger debris, plastics etc. clogging the reactor. MBR module is a bio reactor fitted with necessary components like air diffuser and filtration membrane with a pore size ranging from 0.1 micron to 0.01 micron.

MBBR System for STP

The Sewage Treatment System being proposed by us is MBBR Based technology. Moving Bed Bio Reactor (MBBR) is emerging as a clear choice for STP's all across the sector for various reasons like:

- Less Area Requirement.
- No Sludge Recycle, monitoring of F/M ratio etc. hence easy to operate. Minimal moving parts thus lesser maintenance requirements.
- Flexibility to correct the performance by just adding the media in reactor or increasing the Air Quantity.
- No costly replacements.

EFFLUENT TREATMENT PLANT (ETP)

MBR System for ETP

MBR - ETP are Membrane Bio Reactor based Effluent treatment and recycling plants. It is indigenously developed for meeting stringent treated water norms for sewage water and various other ETP's. It works on principle of biological digestion followed by specially designed submerged hollow fiber membrane filtration. Hollow fiber membranes have pore size of 0.1 - 0.4 micron which ensures removal of pathogens and bacteria in treated water. MBR- ETP is a combination of membranes, pumps and other electrical equipment's which makes itself unique in operation and having hassle free maintenance.

MBBR System for ETP

The Effluent Treatment System being proposed by us is MBBR Based technology. Moving Bed Bio Reactor (MBBR) is emerging as a clear choice for ETP's all across the sector for various reasons like:

- Less Area Requirement.
- No Sludge Recycle, monitoring of F/M ratio etc. hence easy to operate. Minimal moving parts thus lesser maintenance requirements.
- Flexibility to correct the performance by just adding the media in reactor or increasing the Air Quantity.
- No costly replacements.

MECHANICAL VAPOUR RECOMPRESSION EVAPORTOR (MVRE)

We are manufacturer & supplier of industrial Mechanical Vapour Recompression Evaporators (MVRE) in India and we offer our wide range of MVRe for various fields such as the Food & Dairy industry, Pharmaceutical industry, Textile, Agrochemical industry, Textile, Automobile, Dyeing industries, Herbal Industry, Pulp, and paper industry, Liquid and Chemicals industries,etc.

MVRE (Mechanical Vapour Recompression Evaporators) technology can reduce the energy consumption of the evaporation system significantly. The pressure, temperature, and enthalpy of the secondary steam generated by evaporation increase after being compressed by the steam compressor. The steamenters the heating room as a heat resource to continuously circulate. This type of evaporation system consumes electrical energy for evaporation operations. Energy consumption ofcompression fans varies slightly, depending on different material properties

ADVANTAGES:

- Low Operating cost.
- Fully automated system.
- No steam or cooling water is required.
- Coupling with different types of crystallizers for continuous evaporation and crystallization.
- No condensate or vary small amount of condensate is generated.
- A small amount of energy is required. (Either steam or electricity).

APPLICATIONS:

- Food & beverage.
- Chemical.
- Pharmaceutical.
- Pesticide.
- Printing & dyeing.
- Metallurgy.
- Fermentation.
- Tobacco.

MULTI-EFFECT EVAPORATOR: (MEE PLANT)

Multiple Effect Evaporator (MEE) is a system consisting of a sequence of heat exchangers – VLSs (vapor-liquid separators) used widely for many applications in industries to achieve evaporation and obtain desired concentration as output by using an efficient amount of heat sources such as steam or hot water to evaporate water. Evaporation is normally stopped before the solute starts to precipitate in the operation of an evaporator. Most of the industrial evaporators have tubular heating surfaces. The tubes may be horizontal or vertical, long or short and the liquid may be inside or outside the tubes.

REVERSE OSMOSIS PLANT:(RO)

The RO System works on the principle of Reverse osmosis, also known as hyper-filtration. One of the finest techniques for treating water, reverse osmosis eliminates contaminants from water thus making it fit for commercial and industrial applications.

Reverse osmosis is the process of forcing a solvent from a region of high solute concentration through a membrane to a region of low solute concentration by applying a pressure in excess of the osmotic pressure. This is the reverse of the normal osmosis process, which is the natural movement of solvent from an area of low solute concentration, through a membrane, to an area of high solute concentration when no external pressure is applied. The membrane here is semi permeable, meaning it allows the passage of solvent but not of solute.

ULTRA FILTRATION SYSTEM:(UF SYSTEM)

Ultra filtration is used in various industries such as power, metal, mining, chemical, process, pharmaceutical, food & beverage, municipal, hospitals, infrastructure, hospitality, etc. for various applications for water & waste water treatment and recycling.

Ultra filtration is a low-pressure membrane process used to separate bacteria, viruses, and high molecular weight compounds colloidal and particulate matters from a feed stream. Ultra filtration has larger pore sand high permeability with less osmotic effects that allows ultra filtration to operate at relatively lower pressure than Nano filtration and reverse osmosis and is therefore it is least costly to operate.

NANO FILTRATION SYSTEM:(NF SYSTEM)

Nano filtration is a technique that has succeeded in the course of recent years which is used most often with low total dissolved solids water such as surface water and fresh ground water. Divalent and larger ions are generally targeted to be removed by Nano filtration. Monovalent ions pass through Nano filtration membrane so it is widely used for desalting application. Removing hardness and dissolved organics from water, arsenic removal from drinking water, heavy metal ions recovery from electro plating waste water and separation of pharmaceuticals from fermentation broths are some of the examples of industrial applications of nano filtration. NF has properties that lie between Ultra filtration (UF) and Reverse Osmosis (RO) with pore size of 0.01-0.001 µm. Since all NF membranes have their origins in reverse osmosis (RO) membranes, they are called loose reverse osmosis membranes or tight ultra filtration membranes with respect to it's permeate flux and separation performance.

- Effective for de-salting as well as Dyes concentration with no dyes loss.
- Best for acid, reactive as well as disperse dyes.
- Remove all impurities from dyes and improve the quality of dyes.
- Reduce manufacturing cost. High TC in less timing to saves pray drying cost.
- Higher flux to save energy cost.

LAMELLA CLARIFIER:

Fluid Systems Lamella Clarifier is a compact, inclined plate type clarifier used for clarification of water & waste water having higher suspended and colloidal particles.

The principle is based on the settlement of colloidal particles by providing a series of inclined plates, which are arranged to form a separate sedimentation chamber between adjacent plates.

Application Areas

- Water Clarification
- Sewage Treatment
- Effluent Treatment
- Ash/scrubber wasteTreatment.
- Brine Clarification.
- Filter Back wash water recovery.
- Iron Removal.
- Process Water Treatment.

DEMINERALISATION PLANTS:(DM PLANTS)

Demineralization is the process of removing mineral salts from water by using the ion exchange process. With mostnatural water sources it is possible to use Demineralisation and produce water of a higher quality than conventional distillation.

WATER SOFTENER PLANT:

The Water Softeners are charged with a high capacity polystyrene bead cation exchange resin in sodium form.When hard water passes through this resin column, the hardness forming calcium and magnesium salts are replaced with sodium salts which do not possess any hardness properties. This softening process is continuous until the material is exhausted of sodium salts when it is regenerated with a solution of common salt.

DISSOLVED AIR FLOTATION:(DAF PLANT)

Dissolved air flotation (DAF) is a water treatment process that clarifies waste waters (or other waters) by the removal of suspended matter such as oil or solids. The removal is achieved by dissolving air in the water or wastewater under pressure and then releasing the air at atmospheric pressure in a flotation tank basin. The released air forms tiny bubbles which adhere to the suspended matter causing the suspended matter to float to the surface of the water where it may then be removed by a skimming device.

It is useful in a removal of suspended matter such as oil & Solids from waste water.

CHEMICAL DOSING SYSTEM:

Fluid Systems offers Chemical handling and Dosing Systems for dosing Coagulants like Lime. Ferrous Sulfate, PAC, Alumand Feed Conditioning chemicals like Anti-scalant, Antioxidant, Membrane cleaners etc. Dosing systems are Skid mounted, compact andrugged, engineered to handle and work efficiently under highly corrosive and varying conditions

The areas of application include

- Raw Water Treatment
- Waste Water Treatment
- Reverse Osmosis
- Ultra Filtration
- Cooling Water Treatment
- Boiler Feed Treatment
- Dosing Pumps and Tanks

  Chemical dosing pumps, Electronic dosing pumps, plunger type dosing pumps for Chemical dosing. Tanks in virgin PP/virgin LDPE/FRPMOC for Chemical Storage.

WATER TREATMENT SPARES & EQUIPMENT'S:

With the support of our skilled team, we are engaged in offering a wide assortment of water purifier spare parts. Further, these are available in various standard as well customized specifications to the clients. Water Treatment Spares & Water treatment Components supplied by us,

ITEM	DESCRIPTION	IMAGES
Resins	Ion exchange Resins for Softening & DM Plants	
Filter Media	Filter Media as per IS-8419 in Different Grades to suit your filtration needs.	
ROM embranes	CTA and TFCRO Membranes from Reputed Manufacturers in 1.8", 2.5", 4"and 8" Dia for Tap / Brackish/ Well/Sea water applications.	
Ultra Filtration Membranes	Ultra filtration membranes (MOC-polyether sulfone) for Municipal/ Industrial applications	
RO Housings	RO Housings for 4" and 8" Membranes in Filament wound FRP to suit different Arrays of Membranes.	
Cartridge Filters & cartridges	Pleated, Spun, Melt blown, Wound Cartridges from 0.2 to 50 microns with Housings of SS-304/ SS-316/PP/ Nylon/GRNylon.	

ITEM	DESCRIPTION	IMAGES
Diaphragm Valves, Check Valves & Diaphragms	Valves with Body MOC in CI/CS/CF-8M/Hast alloy/ Aluminum/ Bronze, Lining in Natural Rubber/ Ebonite/Neoprene/Hypalon/PTFE with Diaphragms in Natural Rubber/Neoprene/Butyl/Viton/PTFE/ Nitrile/Silicon etc.	
Multiport Valves	Multiport valves in ABS of 15 NB, 40 NB, 65NB sizes for Filters, Softeners, Cation, Anion and Mixed Bed.	
Level Indicators	Reflux, Tubular, type Level Gauges for water/ Acid / Alkali storage tanks with different MOC for varied applications.	
Conductivity Meters/pH Meters/ Flow Meters	Conductivity meters (range 0 to4uS/cm) and (4 to 40uS/cm), pH Indicators in the range 0 to 14 and flow Indicators to suit different applications	
Agitators	Slow speed agitators, High speed agitators in SS construction for chemical mixing	
Flocculator and Flash Mixture	We provide the mechanical stirrers to assure fast, thorough, mixing of lime and alum for the purpose of creating floc.MOC: MSEP or as per required Standard	
Filter press	We provide the tool used in separation processes, specifically to separate solids and liquids as per the required size with all details.we also provide the Filter Cloths of the best quality as per requirement.	

MANY MORE THAT ARE USED IN THE WATER TREATMENT PLANTS.

TURNKEY PROJECTS

We deal with all types of waste water treatment plants including their foundation, EIA, Liaisoning, O&M, Equipment's and all chemicals (Tested in our Labs) and Customize plants as per their requirements.

For the complete solution on the required plants, we provide both Technical (Aaradhya Enviro Tech) and Laboratory (Aaradhya Labs) support.

With our combined effort, Aaradhya Enviro Tech & Aaradhya Labs will provide all the necessary solutions and help in successfully establishing & running the plant.

In this service we will provide you the all Soil & water testing's with the help of Aaradhya Labs and all technical work i.e. required plant, Capacity, required equipment's, Spares, overall budget, plants layouts, PFD's, P&ID's with Erection & Commissioning and Operation & Maintenance Contract with the based on Aaradhya Enviro Tech.

It will be our responsibility to provide the plant in accordance with the customer's needs and expectations in this service. Furthermore, we provide Chemicals and solutions utilized in Water & waste water treatment plants.

The Companies which are specialized in a complex production technologies normally use these service as an entry strategy for a foreign company.

We operate as ONE STOP SOLUTION with value for money and time.

Aaradhya labs is a highly maintained with following certification

NABL (National Accreditation Board for Testing & Calibration Laboratories)

ISO 14001: 2015

ISO 45001:2018

Aaradhya Labs

Beyond Atoms...

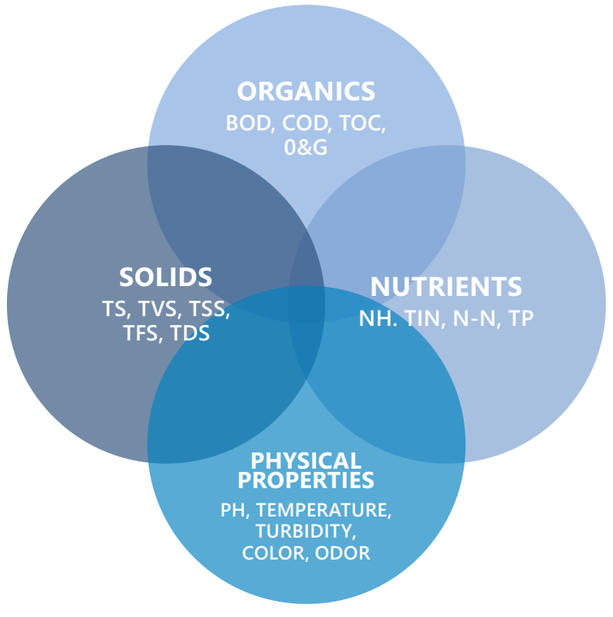
www.aaradhyalabs.com

WATER AND WASTE WATER PARAMETER TESTING:

Aaradhya Lab has the capability to test all parameters in Water and Waste Water in all industries. Our Sampling team collected the sample from various locations like Inlet, outlets, Aeration Tank, and clarifiers and then analyzed the sample as customer-required parameter testing.

For example-pH, COD, BOD, TDS, TSS, Chloride, O&G, Fluoride, Nitrate, TotalHardness, CalciumHardness, MagnesiumHardness, etc...

- **Surface Water**
- **Ground Water**
- **Irrigation Water**
- **Water from Purifier**
- **Drinking Water**
- **Boiler Water**
- **Agriculture Water**



ENVIRONMENTAL MONITORING

Aaradhya Labs provide an organic and in organic analysis using wet chemistry as well as modern instrumental analytical techniques, enabling us to meet the environmental analytical needs to the customer.

- **Work Environmental Monitoring**
- **Environmental Monitoring**
- **Ambient Air Monitoring**
- **Stack Monitoring**
- **Illumination Measurement**
- **Noise Monitoring/ Measurement**
- **Lux Monitoring from Various Locations**

Our Qualified and trained staff are available for analysis of Air, water and Waste water to you for comprehensive physical, chemical and instrument analysis.

NOC/CCA, ENVIRONMENT COMPLIANCE FRESH RECOGNITION NABL (ISO/IEC 17025:2017)

With precise knowledge of the relevant field, we are instrumental in offering a comprehensive range of CCA, NOC and AMC Contract for GPCB Related Environmental Pollution Consultants. We work for the consultant as per the client's desires. Also, offered consultant services are important due to being executed as per the norms, and quality assured.

- NOC, CCA applicator
- Monthly Patrak
- Environmental Compliances
- All GPCB related work
- CCA/CTE Renewal
- Environmental Audit
- CGWA applicator

WATER & WASTE WATER TREATABILITIES

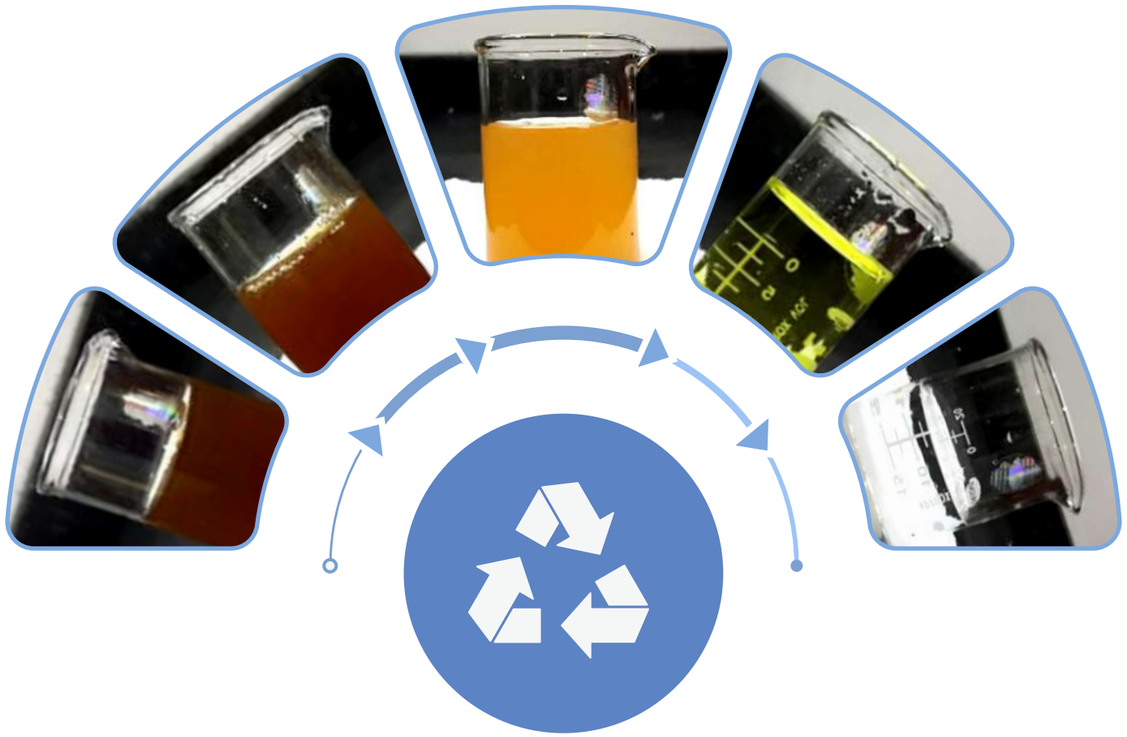
Aaradhya Lab provides the all types of water & waste water treatability for providing the best suggestions and Solutions s per clients need.

Treatability studies is the research work for recycling of all types of water and Waste water. We give 100% efforts for the 100% conversion of waste water into the Clean & Reusable water.

Treatability of,

- Sewage water
- Effluent water.
- STP & ETP Inlet/Outlet water.
- RO, UF & NF Inlet/Outlet water
- Any other Water sample.

Additionally, we offer the customized and unique chemicals that are tested in our laboratories for getting a precise and accurate result as per the client's need.



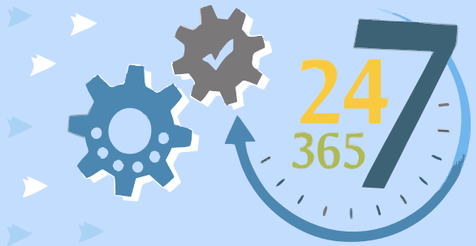
We are providers of the chemicals and solutions for industries like:

- **Dyes**
- **Textile**
- **Food & Beverages**
- **Dairy**
- **Metal**
- **Pharma**
- **Pulp & Paper**
- **Paints & Adhesives**
- **Chemicals**
- **Oil & Grease Removal**
- **Ammonia Removal**
- **Color Removal**

ANNUAL MAINTENANCE CONTRACT FOR WATER SAMPLING & TESTING:

Aaradhya Labs provides the monthly & annual maintenance contract for water sampling and testing. We also provide the best solutions and good suggestions whenever require for our valuable clients.

- Daily Water Sampling.
- Testing as per Requirement.
- Daily Reports.
- Environmental Monitoring as per necessity.



OUR CLIENTS

Many Other Valuable Clients

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