



**Ajay  
Enterprise**



**Ajay Enterprise**

Water Solutions



**CE**



AN ISO 9001:2015 Certified

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**Intense is exactly  
what you need**

**our aim preserve naturality**



# ABOUT US

In **AJAY ENTERPRISE** we are working as a large manufacturer of all types of water treatment plants like, water softening plan, D.M. water plant, Swimming pool filter plant, Domestic & Industrial R.O. Plant, STP & ETP Plant, MBR Plant, Mineral Water Plant we will be increase our organization to enrich the fields we serve.

By Conducting all of our business with honesty & integrity.

By developing day by day new latest technology to make best to our clients from past 22 years.

## Our Quality Policy

The Quality policy of **AJAY ENTERPRISE** founded on a commitment by all employees to provide products and service that satisfy our customers.

## Our Goal

The Goal **AJAY ENTERPRISE** is to support its customers in filling the object fo business by :

- Providing innovative products at competitive pricing
- Providing better system to give best Quality & Service.

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## SEWAGE TREATMENT PLANT



# SEWAGE TREATMENT

Sewage treatment is the process of removing contaminants from wastewater generated from industrial or domestic sewage using physical, chemical, and biological processes. Its objective is to produce an environmentally- safe fluid waste stream and a solid waste (or treated sludge) suitable for disposal or reuse usually as manure. The treated water after tertiary treatment can be used for cooling towers, horticulture, flushing and washing.

AJAY ENTERPRISE offers various advance technologies with low foot print as per customer requirement. The prefabricated STPs from 10 KLD to 150 KLD are ideal for applications where time and area are the essence of the project. Higher capacity STPs require civil construction .

## Technologies Offered :

**FAB - (Flocculating Aerobic Bio Reactor):** The process uses floating PVC media and a two stage design for higher efficiency . Requires minimum height of 5m and is preferred for above ground installations . The Process requires high degree of pre-treatment for sewage from kitchen waste .

**SAFF - (Submerged Aerobic Fixed Film):** This is the simplest and most cost effective method of commercial, Industrial and residential sewage sanitation / waste water treatment, suited for small to medium sized treatment plants where available land is limited and full time operational manning would be uneconomical . A well built SAFF plant has no moving parts within its main process zones and any serviceable items are positioned to access easily without disrupting the ongoing sewage treatment.

**MBBR - (Moving Bed Biofilm Reactor):** This process is based on the aerobic biofilm principle and utilizes the advantages of activated sludge and other bio film systems without being restrained by their disadvantages . The basis of the process is the bio film carrier elements that are made from polyethylene which provide a large protected surface area for the biofilm and optimal conditions for the bacteria culture to grow and thrive .

**MBR - (Membrane Bio Reactor):** When the treated water is to be reused and is used as feed water for Reverse Osmosis, a high degree of purity with low BOD & COD is essential . This process makes use of reactor tank and a set of membrane filters which are either submerged or are in crossflow type design .

**SBR - (Sequence Batch Reactor):** A type of the activated sludge process which combine all the process (fill, react, settle, decant, idle) in a single tank, giving it the proclaimed name.

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# ETP PLANT

(EFFLUENT TREATMENT PLANT)



# ETP

## (EFFLUENT TREATMENT PLANT)

The working principle of the Effluent Treatment plant(ETP) is undertaken to be one of the most effective principles used in an Effluent Treatment plant(ETP) where a large amount of human-friendly chemicals is used that is applied to the water to make it free from all the factors that might be harmful to human and aquatic life. This is an important part of ETP that can be highlighted that helps to highlight that the working principles vary in several ways, furthermore, with the service of etp plant.

Effluent Treatment plant(ETP) is a wastewater treatment process (WWTP) that is used to treat wastewater. It's mostly used in industries like pharmaceuticals, textiles and chemicals where extreme water contamination is a possibility.

The Effluent Treatment System is designed to treat the effluent coming from different areas of the plant. Flow range: 2 KLD to 1 MLD. The effluent treatment plant falls under this category as their common name etp plant, etp, effluent sewage treatment plants, common effluent treatment plant, Effluent Treatment Plant of Dairy, Effluent wastewater treatment plant, effluent treatment plant.

Effluent treatment plant are called in this way as their common name effluent treatment system, etp,etp plant, Effluent wastewater treatment plant, mbr etp plant, effluent treatment plant for textile industry, effluent treatment plant system, Effluent Treatment For Rice Mills, effluent sewage treatment plants, common effluent treatment plant, Effluent Treatment Plant of Dairy Wastewater, Wastewater Treatment in Dairy Processing, effluent treatment system, effluent treatment plant , etp water plant, effluent treatment, etp manufacturer, best etp plant, best effluent treatment plant, common etp, effluent treatment system plant, industrial Effluent treatment, industrial Effluent treatment system, industrial Effluent treatment plant, textile effluent treatment system, manufacturing of etp, effluent water treatment plant

## Specifications :

- Filtration Precision: 0.01 micron
- Active Membrane Area: 40 M2
- Flux: 2.4-6.4 Litre/H
- Treatment Technique are also available Fluidized Aerated Reactor, Bio Tower
- Materials of Construction are also available in Fiber Reinforced Plastic (FRP) / Stainless Steel (SS) / Mild Steel Rubber, Epoxy Lining (MSRL/MSEL) and civil construction.
- Automation grade both automatic and semi automatic.

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# STP PLANT

(SEWAGE TREATMENT PLANT)



# STP

## (SEWAGE TREATMENT PLANT)

We supply various types of sewage treatment plants in India such as household sewage treatment plant, underground drainage and sewage system, Sequential Batch Reactor sewage treatment plant, mbr sewage treatment plant, activated sludge process stp, MBBR technology sewage treatment plant, Industrial sewage plant, Submerged Aerobic Fixed Film stp, Domestic sewage treatment plant, PLC Based Automatic Sewage Treatment Plant, commercial sewage treatment, Sewage treatment plant for small hospitals, Non electric sewage treatment plant, PLC and SCADA Based Sewage Water Treatment Plant, sewage water treatment plant, domestic sewage treatment system and SBR sewage treatment plant.

### SEWAGE TREATMENT PLANT FOR APARTMENTS :

If your apartment is not installed with STP or if you are looking forward to construct a new apartment then environmental laws have made it mandatory for all to set up and operate Sewage Treatment Plants. If the word "Sewage Treatment Plant" is confusing to you, you might consider it as "wastewater treatment". Here, we let you know about what is Sewage Treatment Plant (STP) or Sewage Treatment System.

### SEWAGE TREATMENT PROCESS :

Treating sewage/wastewater from your apartment has the aim to produce an effluent that will do as little harm as possible when discharged to the surrounding environment, thereby preventing pollution compared to releasing untreated wastewater into the environment.

Sewage from your apartment can be treated by implanting Sewage Treatment System or Sewage Treatment Plant (STP) which involves following stages :

1. Preliminary Treatment
2. Primary Treatment
3. Secondary Treatment
4. Tertiary Treatment

To make wastewater acceptable for reuse or for returning to the environment, the concentration of contaminants must be reduced to a safe level, usually a standard set by the Environment Agency.

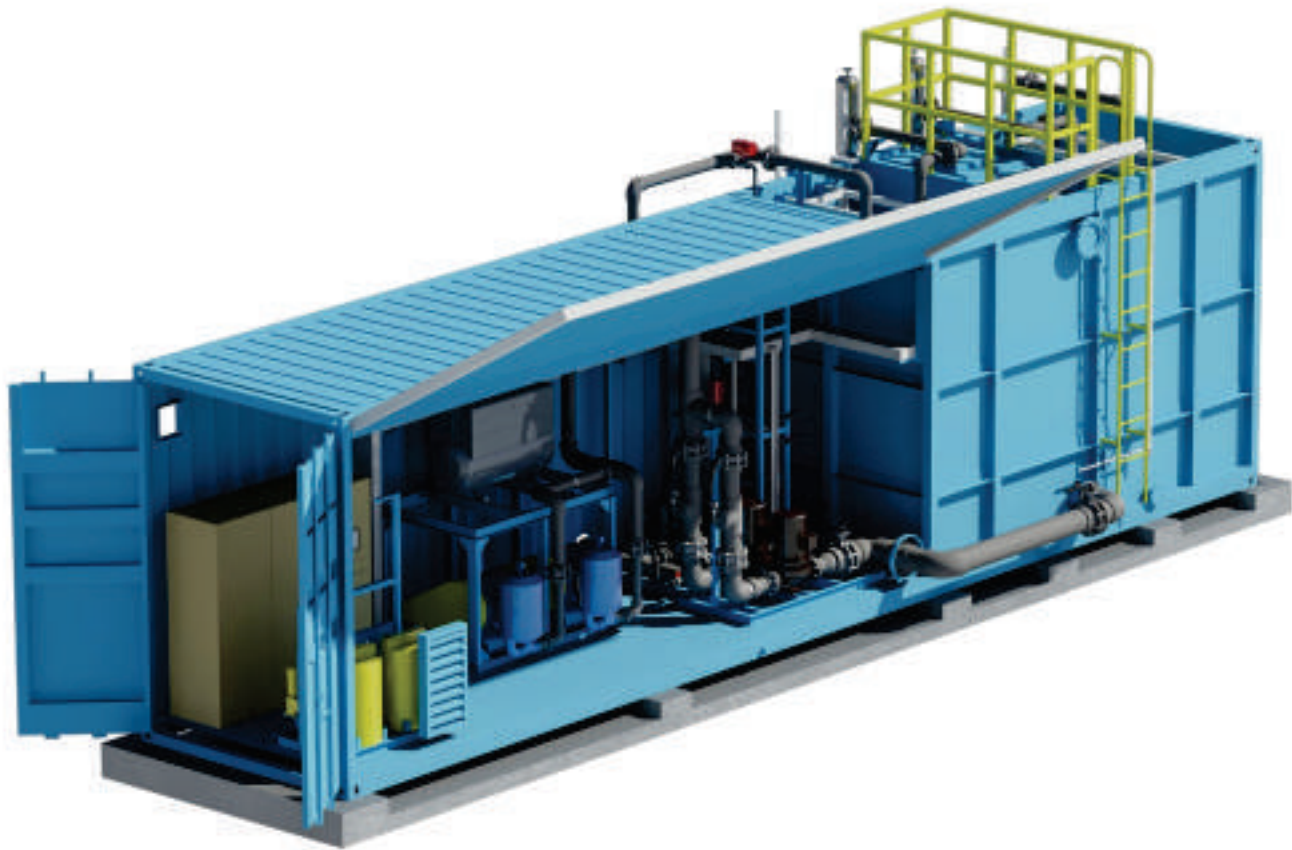
Sewage can be treated close to where it is created (in septic tanks and their associated drain fields or sewage treatment plants), or collected and transported via a network of pipes and pump stations to a municipal treatment plant. The former system is gaining popularity for many new ECO towns as 60% of the cost of mains sewerage is in the pipework to transport it to a central location and it is not sustainable. It is called 'Decentralization' of sewage treatment systems.

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# MBR PLANT

(MEMBRANE BIOREACTOR)



# MBR

## (MEMBRANE BIOREACTOR)

Membrane bioreactor (MBR) is a combination of membrane processes like microfiltration or ultrafiltration with a biological wastewater treatment process, the activated sludge process. It is now widely used for municipal and industrial wastewater treatment.[1] The two basic MBR configurations are a submerged membrane bioreactor (SMBR), and a side stream membrane bioreactor.[2] In the SMBR configuration, the membrane is located inside the biological reactor and submerged in the wastewater, while in a side stream membrane bioreactor, the membrane is located outside the reactor, as an additional step after biological treatment.

When used with domestic wastewater, MBR processes can produce effluent of high enough quality for discharge into the sea, oceans, surfaces, brackish bodies, or waterways for usage in urban irrigation. Other advantages of MBR's over conventional processes include a small footprint, easy retrofit, and upgradation of old wastewater treatment plants.

### ADVANTAGES

- Secondary clarifiers and tertiary filtration processes are eliminated, thereby reducing plant footprint. In certain instances, footprint can be further reduced because other process units such as digesters or UV disinfection can also be eliminated/ minimised (dependent upon governing regulations) (CHAPMAN et al. n.y.)
- Can be designed to prolong sludge age, hence lower sludge production (CHAPMAN et al. n.y.)
- High effluent quality
- High loading rate capability (LARSSON & PERSSON 2004)

### DISADVANTAGES

- High operation and capital costs (membranes)
- Membrane complexity and fouling
- Energy costs

IN	OUT
Blackwater	Faecal Sludge
Greywater	Treated Water



# WATER SOFTENING PLANT



# WATER SOFTENING PLANT

## WATER SOFTENING PLANT

Remove salt from water like calcium & Magnesium by ion Exchange resins, using salt (NaCl) to regenerate the same. Due to hard water scale formatting on all surfaces & spaces hard water passes due to it we face problem in detergent & soap, by using soft water we get free from above all problems for more details please contact us...

Water Softening Plant also available with automatic Regeneration.

## APPLICATION

Cooling water, Induction furnace, Hoptel Commercial Laundries, Boiler Feed water, Residential, Apartment & Bungalows, Solar etc.



MOTEL



SWIMMING POOL



DRINKING WATER



BATHROOM



WASHING



FARM



KITCHEN



GARDEN



HOSPITAL

**IDEAL  
USE FOR**

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# DEMINERALIZATION PLANT



# DEMINERALIZATION PLANT

## Demineralization plant in Food Industry

Because water is a basic requirement in the food and beverage industries, it is used in an expansive range of everyday tasks, from cleaning raw materials to incorporating recipes. As to ensure that water does not interfere with the manufacturing process, it must be treated. All water leaving the plant must be treated once it's been used to meet state and federal discharge limits.

## What is demineralization?

Demineralization is the act of eliminating mineral salts from water through ion exchange. Water contains a variety of ions, including cations of sodium, calcium, iron, copper, and others, as well as anions such as chloride, sulphate, and nitrate. Deionization is a physical process that uses specially-manufactured ion exchange resins to provide an ion exchange site for the replacement of mineral salts in water, resulting in the formation of H<sup>+</sup> and OH<sup>-</sup> ions. Because the majority of water impurities are dissolved salts, deionization produces high purity water that is similar to distilled Water, and the process is quick and free of scale build-up.

## The Various Options in Demineralisation Plants supplied by us :

- Two bed DM Water Plants – FRP
- Two Bed DM Water Plants – Mild Steel Rubber lined
- Degasification Systems – FRP & MSRL
- Mixed Bed Demineralisers – FRP
- Mixed Bed Demineralises – MSRL
- Fully Automatic Demineralised Water Plants -  
- Mild Steel Rubber lined
- Rapid Flow Two Bed DM Plants
- Fully Automatic Rapid Flow Two Bed DM Plants



Beverage Industry



Petro Chemical



Pharmaceutical



Batteries

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# REVERSE OSMOSIS PLANT



## REVERSE OSMOSIS SYSTEM

Brief to R.O. System :

Reverse Osmosis system is able to remove all unwanted dissolved salt, Bacteria, Viruses from Raw Water. Which are harmful to use in drinking water as well as other application.

**AJAY ENTERPRISE** available in various model as per requirement & feed water conditions.

## INDUSTRIAL REVERSE OSMOSIS PLANTS/ INDUSTRIAL RO SYSTEMS

We manufacture a wide Range of industrial Reverse Osmosis Plants to cater the stringent process requirements. Our industrial reverse osmosis Plants are carefully customized and configured to suit the individual requirement of the output water, which varies from normal drinking application to the specific usage, such as food Processing, pharmaceuticals and boiler feeding requirement.

These systems come standard with pre-filters, chemical dosing and Antiscalant dosing. Customization is available on all our units based on individual water application and customer needs.

# REVERSE OSMOSIS PLANT

## BENEFITS OF REVERSE OSMOSIS

As a water treatment process, reverse osmosis provides many advantages, including : Total dissolved solids reduction : Reverse osmosis is one of the rare water treatment processes that can boast a total dissolved solids reduction. The few other treatment methods with this capability are often less efficient than reverse osmosis.

**Cost-effectiveness** : Reverse osmosis is popular in industrial settings because it is highly economical compared with alternative filtration methods. It allows plants to treat large volumes of water while remaining comfortably within their established budgets.

**Eco-friendliness** : Compared with other treatment methods, reverse osmosis is also relatively environmentally friendly. It uses less energy than other methods like thermal distillation because it does not rely on energy generation. Using reverse osmosis can help a facility reduce its carbon footprint, protect the environment and do its part to curb climate change.

**Alkalinity and hardness removal** : Reverse osmosis removes the calcium and magnesium ions that contribute to hard water, as well as the carbonate ions that contribute to unwanted alkalinity.

## ABOUT RO MEMBRANES

A reverse osmosis system is dependent upon and built around its individual membranes. Each membrane consists of a spiral-wound sheet of semi-permeable material (varies dependent on application). Membranes are available in 2-inch, 4-inch, and 8-inch diameter with the 4- and 8-inch diameter sizes most commonly used in the water treatment industry. The water treatment industry, as a whole, has accepted a 40-inch length as a standard size so that membranes from different manufacturers are interchangeable in equipment systems. One of the primary measurements of a membrane is its square footage. Membranes are available in the range of 350-450 sq. ft. of surface area.

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# HEMODIALYSIS RO PLANT



## HEMODIALYSIS - THE ROLE OF WATER

Hemodialysis is a life-saving treatment and the water that is used to produce dialysis fluid must match set standards. Dialysis fluid that is used in hemodialysis is crucial for the health and wellbeing of patients with kidney disease which means their blood has to be cleaned of harmful impurities.

The treated water is blended with concentrated electrolyte solutions and buffers to produce dialysis fluid that is used for the procedure.

In order to protect hemodialysis patients from exposure to chemical and microbiologic contaminants, strict quality standards for dialysis fluid have been published by both international and national standards organizations.

## HEMODIALYSIS WATER TREATMENT SOLUTIONS

- Single Stage dialysis RO system
- DM Plant for dialysis
- Water sampling and analysis
- Custom Designing
- Repair and AMC
- Central Stage RO Plant
- Precise consultation
- Installation and training
- Spare parts supply

# MINERAL WATER PLANT



## TURNKEY PROJECTS

We are providing turnkey projects along with :

**Civil Engineering**



**Electrical**



**Mechanical**



**Vaccum**



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## OUR CLIENT

HOTEL VEDANT  
TATA CONSTRUCTION  
HOTEL BLACK THAKAR  
P & G  
MICRO METAL  
ROOP METAL  
BHAGYALAXMI METAL  
AMIT INDUSTRIES  
ANMOL METAL  
MAHALAXMI METAL  
MANGALDEEP METAL  
AISHWARYA METAL  
SHREE LAXMI INDUSTRIES  
KOHINOOR METAL

K K METAL  
KARDHAR INDUSTRIES  
DAGA INDUSTRIES  
RAJ METAL INDUSTRIES  
DHANLAXMI INDUSTRIES  
ROYAL INDUSTRIES  
SHREE BHUMIKA INDUSTRIES  
RATNADEEP INDUSTRIES  
MAYA UDHYOG  
CHANDRESH METAL  
SHAYONA ENTERPRISE  
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# Ajay Enterprise

Water Solutions

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