

# ACTIVATED CARBON FILTERS

Activated carbon filters remove chlorine, organics, THM, taste, odor, and color from water and wastewater.

Oxygen activates charcoal, creating millions of tiny pores between carbon atoms. Due to its huge surface area (2000-3000 square meters per gram), activated carbon absorbs water contaminants.

Water purification filters from Awt are inexpensive, reliable, and efficient. Our unique activated carbon filter maximizes surface area, contact time, and contaminant removal. AWT ACFS have flow rates up to 400m3/hr and diameters from 0.225 to 4.0 m vertically and lengths from 3.0 to 11 m horizontally. Durable, preengineered, pre-assembled modules save installation and startup expenses. Awt can provide chlorine-free

feed water or color- and odor-free waste water.



- Effective adsorption of pollutants for improved air and water quality.
- Removes volatile organic compounds (VOCs) and unpleasant odors.
- Enhances drinking water taste by eliminating chlorine and organic compounds.
- Traps airborne pollutants, contributing to better indoor air quality.
- Versatile applications in decolorization, wastewater treatment, and medical settings.
- Long lifespan and cost-effective solution for various filtration needs.



# **EFFLUENT TREATMENT PLANT (ETP)**

ACF

MGF

AWT ETP Plants treat wastewater for compliance with discharge standards or recycle it for industrial use, addressing issues like smell, color, and sludge. Our cutting-edge ETP employs advanced technology to eliminate bad taste and contaminants, maintaining zero-discharge. Leveraging extensive industry experience, we deliver high-quality, compliant, and user-friendly effluent water treatment plants worldwide.

- Purifies industrial wastewater, meeting environmental standards.
- Controls pollution, ensuring compliance with regulatory requirements.
- Treats effluents for potential water reuse, promoting sustainability.
- Utilizes chemical and biological processes for effective wastewater treatment.





#### MULTI GRADE FILTER

MultiGrade Filter is usedfor removal of suspended solids &turbidity from Water & Wastewater. We, at WAT offer Series of filters at a low cost, reliable and highly efficient way to filter your water.

Our unique design of Multi Grade Sand filter ensures the maximum utilization of the surface area, lesser pressure drop across the filter bed and effective removal of the impurities even under the conditions of high filtration rate compare to pressure sand filter & dual media filter.

AWT MGFs are available in diameters from 0.225 Mts. to 4.0 Mts.(vertically) and in length from 3.0 Mts. mm to 11 Mts. (Horizontally) with flow rates up to 450M3/Hr.

these rugged, pre-engineered, pre assembled units minimize in stallation and start-up costs.



Whether you require RO feed process water or filtered water, WAT can full fill applications requirement

#### WORKING PRINCIPAL

Raw water is passed through the Multi grade media filter, contains anthracite at a top layer of media followed by fine & Coarse Garnet and quartz sand supported by pebbles and gravels. Multi grades of media and layers provide extra ordinary dirt holding capacity at various level of total media depth and produce unparalleled filter water quality.

During the filtration cycle the largest particles are strained out by the anthracite, coarse and fine sand, Coarse & fine garnet though a combination of adhesion and straining.

Since the particles in the water are filtered out at various depths in a multimedia filter, the filter does not clog as quickly as if all of the particles were all caught by the top layer.



- Efficient Turbidity and TSS Removal.
- High filtration rate.
- Filtration efficiency is up to 2.0 ppm suspended particles.
- Easy operation & maintenance.
- Wide range in material of construction.
- Economical way of production & design.
- Low Energy requirement.
- Can accommodate seasonal fluctuations in flow rate.
- Long filter cycles between backwashing with minimum loss of pressure.





## **PRESSURE SEND FILTER**

Aman Water Technology offers cost-effective, reliable, and efficient pressure sand filters for removing suspended particles and turbidity from water and wastewater.

Employing an innovative design, our filters utilize fine quartz sand and gravel, optimizing surface area for effective impurity removal. With a range of sizes and flow rates, our durable pre-engineered units cater to diverse water treatment needs, including RO feed process water and general filtration requirements.



## **WORKING PRINCIPAL**

Raw water passed through the pressure sand filter, the filter media (fine quartz sand) is supported on gravel & pebbles bed of progressively large in size. During the fertilization cycle the filter bed retains the dirt and suspend partials from the rawwater and accumulates within the filter bed. Clear watercan be collected from the outlet of the filter.

- Filters water under pressure for efficient particle removal.
- Suitable for diverse applications in water treatment and purification.
- Removes impurities by forcing water through a filter medium.
- Effective in reducing sediment, debris, and suspended solids.
- Compact design and versatility make it adaptable to various settings.





# **REVERSE OSMOSIS (RO)**

Reverse osmosis method removes most water contaminants by forcing water through a semi-permeable membrane under pressure. AWT has innovated reverse osmosis technology with optimized capital and operating costs. Reverse osmosis is a reliable technology for producing water for various industries. One of the most cost-effective and efficient waste water treatment methods is RO. RO effectively reduces TDS and other contaminants in water.

- Purifies water by forcing it through a semipermeable membrane.
- Removes contaminants, ions, and particles for high-quality drinking water.
- Effective in desalination, removing salt from seawater for freshwater production.
- Ideal for residential, industrial, and commercial water treatment applications.
- Reduces Total Dissolved Solids (TDS) and impurities for clean water.





#### SOFTENING PLANTS

Hard water refers to water with high calcium and magnesium levels. Water softening plants remove total hardness from water. Aman Water Technology provides affordable, reliable, and effective water softeners. Aman Water Technology offers water softeners with ammeters ranging from 0.225 to 4.0 Mts. Max flow rate: 250M3/Hr, OBR: 2200M3@400PPM hardness. Pre-engineered, pre-assembled modules save installation and startup expenses. The market recognizes our water softening plant for its efficient and constant performance.

- Removes hardness-causing minerals like calcium and magnesium from water.
- Utilizes ion exchange resin to exchange ions and soften water.
- Prevents scale buildup in pipes and appliances for improved efficiency.
- Extends the lifespan of water-using appliances and reduces maintenance.
- Ideal for areas with hard water to enhance water quality.
- Reduces soap scum and improves lathering in cleaning and bathing.





# **SEWAGE TREATMENT PLANT (STP)**

Sewage Treatment Plants, akin to Septic Tanks, employ mechanical components for sediment breakdown, yielding cleaner, environmentally friendly effluent. A primary settling tank separates solids and liquids from combined sewage, with subsequent aeration promoting bacterial purification. AWT, a sewage treatment plant supplier, offers diverse options tailored to customer needs across Rajasthan, Gujarat, MP, UP, and India, including conventional, innovative, modular, and onsite solutions.

- Purifies wastewater from homes and industries for safe disposal.
- Utilizes physical, chemical, and biological processes to treat sewage.
- Removes contaminants and pathogens, making water safe for release.
- Essential for environmental protection and compliance with regulations.
- Reduces the impact of pollutants on ecosystems and public health.
- Separates solids, breaks down organic matter, and disinfects treated water.





#### MODULAR SEWAGE TREATMENT PLANT

AWT's MD series modular sewage treatment plant features a closed steel module with three compartments: aeration, settling, and discharged disinfection. Each chamber includes access and inspection registries, and the modular design allows for increased processing capacity by connecting multiple plants. Protected by an anti-vandal cabinet, the plants are quiet, odorless, and designed for quick one-day installation.

- Compact wastewater treatment system with modular components for flexibility.
- Ideal for decentralized sewage treatment in various applications.
- Utilizes modular units for efficient and scalable wastewater processing.
- Treats sewage through physical, chemical, and biological treatment processes.
- Allows customization to meet specific capacity and treatment requirements.





#### **ONSITE – ABOVE GROUND**



Onsite wastewater treatment, specifically the AG Series AWT plants, utilizes a concrete module with aeration, settling, and disinfection chambers in a closed pit. Ranging from 5 KL to 5 MLD capacity, these plants, housed in a separate room, minimize life cycle costs, accommodate varied tank shapes, and eliminate the need for long-distance wastewater transfer, efficiently returning purified water to its source.

- Onsite solutions located above ground for convenience and accessibility.
- Suitable for various applications, minimizing the need for extensive infrastructure.
- Enables easy monitoring, maintenance, and accessibility for inspections.
- Above-ground installations reduce excavation and ground disturbance.
- Ideal for temporary setups, quick deployments, or limited-space scenarios.



#### ONSITE – UNDER GROUND

Emerging cities face land shortages from vertical growth and population density, posing challenges for infrastructure development. The UG Series AWT Onsite Sewage Treatment Plants provide tailored solutions for developers, efficiently treating household sewage while maximizing land utilization by installing underground systems beneath roads, basements, parking lots, and gardens.

- Underground onsite installations for discreet and space-saving solutions.
- Minimizes visual impact while optimizing land use above ground.
- Ideal for applications where aesthetics or space constraints are crucial.
- Reduces exposure to weather conditions, enhancing equipment durability.
- Suitable for storage tanks, utilities, and infrastructure in confined spaces.





## **ULTRA FILTRATION (UF)**

AWT, offer the widest range of ultrafiltration membrane available to provide maximum flexibility in solving unique process challenges.

The membrane has pores that allow the solvent and small molecules to pass through and the large molecules to be retained.

Ultra filtration may therefore be considered as a selective separation step used to both concentrate and purify medium to high molecular weight components such as plant and dairy proteins, carbohydrates and enzymes.

- Ideal for direct reuse.
- Produces high quality Water.
- User-friendly programmable controls.
- Delivery keeps project moving fast.
- Easily integrated into an existing facility.
- Requires minimal operator supervision.
- Compact footprint saves valuable floor space Quick equipment.
- High quality components ensure continuous, reliable operation.
- Pre-engineered & factory tested systems mean easy installation.
- CEB (Chemical enhance backwash) connections maximize system availability.
- Most comprehensive cleaning capability ensures peak system performance.





# **ZERO LIQUID DISCHARGE**

Companies today understand the importance of sustainability. As water usage and discharge become more important, companies want to reduce consumption and environmental impact. The concept of zero liquid discharge (ZLD) focuses on reducing water usage and eliminating water outflow. ZLD operations convert liquid waste into dry particles and recycle effluent water for reuse in the plant process stream. AWT provides cost-effective Zero Liquid Discharge Plants using membrane, evaporative, or hybrid methods. Our quality-guaranteed Zero Liquid Discharge Plants are commonly used in industries to generate liquid effluents. Most zero liqui systems are integrated to handle R.O. reject streams.

- Eliminates liquid discharge, minimizing environmental impact and pollution.
- Maximizes water reuse through comprehensive treatment and recycling.
- Ensures compliance with environmental regulations and sustainability goals.
- Reduces water consumption and promotes efficient resource management.
- Implements closed-loop systems to prevent any liquid discharge to the environment.
- Addresses industrial wastewater challenges by eliminating liquid discharges.
- Optimizes processes to achieve zero liquid waste generation.





## MEMBRANE BIOREACTOR

MBR (Membrane Bioreactor) combines microfiltration or ultrafiltration membranes with bioreactors for wastewater treatment in municipal and industrial settings. Dependent on suspended growth bioreactors, MBRs use membranes—microfiltration or ultrafiltration, with a preference for UF—for solid-liquid separation, outperforming traditional clarifiers in activated sludge processes. Various membrane types, including hollow fibre, flat sheet, and tubular, contribute to MBRs' innovative solution, enhancing wastewater treatment efficiency through integrated bioreactors and membranes.

- Integrates biological treatment and membrane filtration for wastewater purification.
- Promotes efficient removal of contaminants through a biologically active environment.
- Membrane barriers enhance solid-liquid separation, improving water quality.
- Ideal for compact and high-performance wastewater treatment in various settings.
- Reduces footprint and produces high-quality effluent suitable for reuse.
- Enhances nutrient removal and minimizes the need for additional clarification processes.
- Advanced technology for treating industrial, municipal, and domestic wastewater.
- Ensures reliable removal of pathogens and organic pollutants for environmental compliance.





