Aqua Treat
Clean. Pure. Life

FLEXIBLE SOLUTIONS AT ZERO CAPEX

AquaTreat quick response mobile units offer a 24/7 deployment of small & large-scale water solutions to minimize downtime.

AQUATREAT SERVICES

- Sea Water Desalination Units
- Ultra Filtration
- Filtration Unit
- Wastewater Treatment Plants
- Industrial Effluent Treatment
- Tertiary Treatment Plants
- Dissolved Air Flotation
- Sediment Removal
- Odor Control
- Ozone Remediation
- Chemical pH Adjustment
- Oil Water Separators
- Oilfield Recycling Unit

When you have a short-term or time-delimited project, or limited CAPEX funding, uninterrupted process is essential, and you need effective equipment operated by experts. Equipment that is mobile or otherwise temporarily contracted can be the solution.

Fast Track Water

AquaTreat delivers water fast-when and where it is needed. AquaTreat combines highly mobile and modular design, to deploy, install and commission mobile water solutions within days.

Efficiency

AquaTreat mobile systems are highly efficient in supporting fast track water production, whether is fulfilling continuous operation, covering peak loads or covering shut down periods.

Fine Tuned

The same can be modified to any kind of water; salinity and site conditions. AquaTreat assets can be fine tuned for any specific requirement.

Maintenance

AquaTreat operates maintains its own water treatment and desalination plants, including site preparation and integration with existing systems.

Connectivity

AquaTreat mobile units, can be connected to the grid, generator modules and/or solar panels. plug and play solution delivered to any site.

Mobile

Our in-house custom build units come in 20 foot or 40 foot container modules, easily moved from one site to another.

SEA WATER DESALINATION UNITS

The first regionally based company with emergency water and wastewater rental units.

Units can be supplied on rental basis, water produced basis, with operating staff, with chemicals and consumables. Rental periods can vary from months to years.

Comprehensive O&M

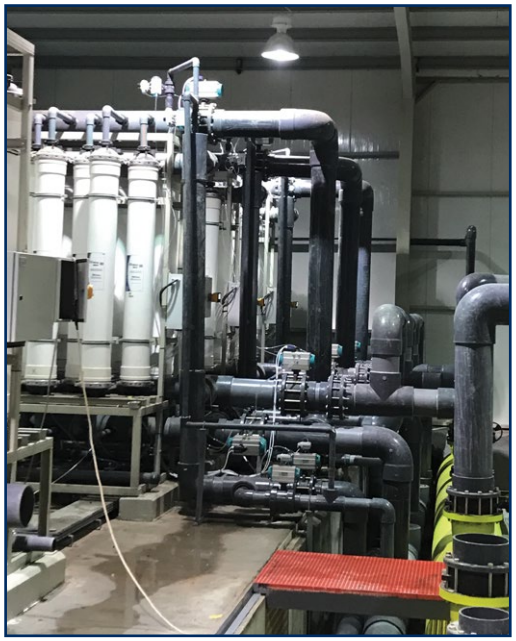
- Turnkey Solutions
- Full Service Offerings
- Supervisory Services
- Remote Monitoring
- Fast mobilization of maintenance staff
- Fast deployment of Backup units
- Large stock of spare parts in the region

ULTRA-FILTRATION UNITS

Ultrafiltration (UF) is a process of separation under pressure, Ultrafiltration (UF) is a variant of membrane-based technology.

Basically, Ultrafiltration systems remove a high percentage of microbes from the feed water. Its treatment process requires relatively little energy, therefore, offers a simple, chemical-free and user-friendly method of treating water.

Ultrafiltration works best in cases of open intake for seawater reverse osmosis plants, as conventional sand filtration is less effective here. Ultrafiltration modules are also often used to treat river water, due to feed water being prone to fluctuation in turbidity, especially over seasons UF is capable to separate insoluble particles from the water.



Ultrafiltration systems are ideal for groundwater and surface water treatment, as well as seawater desalination pretreatment applications.

Using robust outside-in PVDF fiber technology, the hollow fiber membranes benefit from high clean-ability, low chemical consumption, high recovery, and a superior combination of mechanical properties and chemical resistance.

AquaTreat UF mobile systems are containerized on trailers that are fast to be deployed and mobilized.

FILTRATION UNITS

Filtration is the primary technology for reducing TSS (Total Suspended Solids).

These particulates are not heavy enough to settle out of the water. Various filter types are used to capture these particulates, depending on their size, composition, and concentration. Several different types of filters may be arranged in series to reduce TSS to acceptable levels.

Filtration is usually used in several steps in a treatment train, as other processes create solids that the filters then remove. Filtration captures particles of various sizes, such as clays, sands, colloids, microorganisms and organic particulates. Contaminants that are attached to particulate matter via sorption may also be removed.

Filtration, alone or with other processes, can reduce total suspended solids (TSS), turbidity biological oxygen demand (BOD), chemical oxygen demand (COD), and metals.

AquaTreat uses many different types of water and wastewater filters. These include bag and cartridge filters, sand filters, multi-media filters, and membrane filters. The same can be supplied on skids or trailer mounted for fast deployment inside cities or remote locations..

WASTEWATER TREATMENT PLANTS

AquaTreat containerized, and decentralized sewage treatment plants can handle populations for 30 to 10000 persons.

AquaTreat's Prefabricated Packaged Sewage Plants are made of 6 millimeters thickness steel sheets. The tank is fabricated in steel plate adequately stiffened to prevent deflection, and is designed for placement on a flat concrete foundation. The plant can be easily moved and relocated. International standards were observed and considered in welding and fitting works and are compatible with humid climate conditions. Entire inside surfaces of equipment are completely sandblasted and then coated by 250 micron coal tar epoxy paint. Outside surfaces are also covered with coal tar epoxy paint with minimum thickness of 150 millimeters to provide smooth and clean surfaces.

Containerized, modular, mobile wastewater treatment systems offer a flexible solution for recycling and reuse of sewage from all sources. AquaTreat mobile rental units are a perfect solution for temporary installation, like temporary labor camps, remote offices and sites, contraction sites.

AquaTreat containerized, and decentralized sewage treatment plants can handle populations for 30 to 10000 persons and are designed to achieve effluent standard that allow reuse for irrigation, construction ar even dumping into sea or deep aquifers.

Benefits of the unit include:

- Suitable for applications in the domestic, municipal and industrial wastewater markets.
- Maximum treatment efficiency
- Modular construction allows for ease of installation
- Minimal field assembly required
- Water reuse for irrigation and gray water
- Minimum skilled attendance required
- Minimum maintenance required
- Designed for above or below grade installation

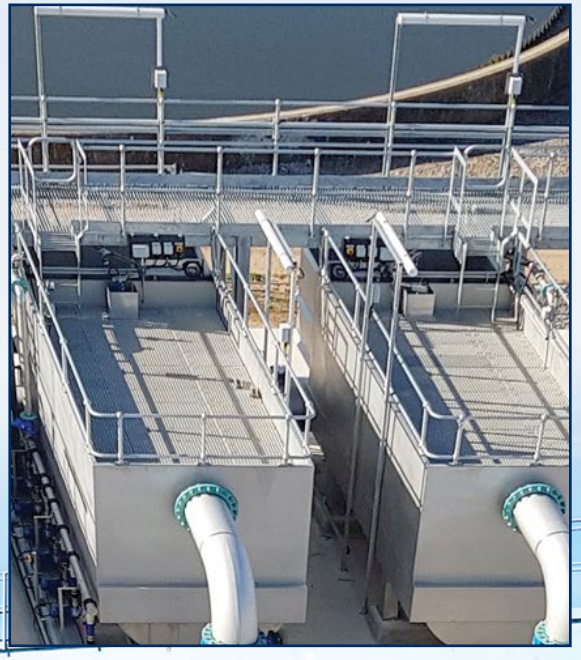
INDUSTRIAL EFFLUENT RECYCLING UNITS

AquaTreat's Packaged Plant has the ability to supply an extended aeration system, along with blower units, controls, diffusers and all other ancillary equipment to a customer as a complete package ready for easy installation. Applied in locations requiring industrial effluent recycle and reuse

Waste water from industries is the consequence of water usage in manufacturing processes on a commercial scale. Water is used extensively for manufacturing food items, clothing, paper, and everything that is commonly used by all of us. Water from manufacturing processes pick up contaminants throughout the process flow. This needs to be treated to compliance prior to disposal or, in many cases, for reuse. Contaminants vary depending on the type of industry. Contamination includes parameters such as pH, TDS, TSS, BOD, COD, and FOG to name a few of the important parameters to be considered while designing a wastewater treatment plant.

TERTIARY TREATMENT UNITS

AquaTreat Tertiary mobile units, can be trailer mounted and used to complement existing Wastewater treatment plants or in case of emergency in existing wastewater treatment plants.



Tertiary water treatment is the final stage of the multi-stage wastewater cleaning process. This third stage of treatment removes inorganic compounds, bacteria, viruses, and parasites. Removing these harmful substances makes the treated water safe to reuse, recycle, or release into the environment.

Tertiary treatment of wastewater normally means final filtration of the treated effluent and the addition of chlorine to the final effluent before discharge. This process injects chlorine into the headworks of a serpentine effluent detention chamber. Chlorination kills bacteria and viruses, and eliminates parasites such as Giardia and Cryptosporidium, which can cause very serious illnesses. In summary, this process disinfects water so that it is safe to reuse or recycle.

DISSOLVED AIR FLOTATION

Dissolved Air Flotation is a clarification process for the separation of solids, grease and oils from water.

It achieves this by the production of a stream of micro fine air bubbles, which attach to the solid particles and float them up to the surface, forming a “sludge blanket”, which is then scraped off by way of a series of scraper blades into a sludge hopper.

AquaTreat DAF are constructed of steel or stainless steel and are supplied as a complete system, pre-assembled and skid mounted prior to despatch, including all interconnecting plumbing and wiring. The unique design of a sloping base enables the system to be effectively drained and cleaned. The same can be also trailer mounted.

SEDIMENT REMOVAL SYSTEMS

AquaTreat mobile and emergency solutions can be used for sediment control in applications like construction sites, piling, dams, oil and gas mud drilling.

Most construction sites in our region need dewatering; this includes the removal of water from deep excavations, trenches and dredges as the water is usually high in solids, clay, silt and mud.

AquaTreat Sediment Removal System guarantees the removal of such solids from concrete hydro-demolition wastewater, construction dewatering, dredge dewatering, trench dewatering, and manufacturing processes.
AquaTreat Separation System is designed to treat this water and wastewater along with other applications that require pH, turbidity and total solids control.

AquaTreat Solid Separation systems are manual or automated and include in line metering to monitor the influent process water for turbidity and pH. The control measures are automatically metered to adjust the dosing for pH control and coagulant and polymer feed systems for superior floc of suspended solids. Solids are removed through settling, media filters and bag filters. The final effluent quality is monitored through the PLC for pH and turbidity. If these parameters fall outside of the discharge permit levels, the flow of the discharge is automatically diverted back to the beginning stage of the treatment process. This gives peace of mind and avoids costly discharge violations.

ODOR CONTROL SCRUBBER SYSTEMS

Odor control scrubbers are designed to eliminate the issue of odor in wastewater treatment plants entirely by absorbing soluble gases into water or a chemical reactant.

These gases and pollutants are then converted into a liquid, which allows them to be completely neutralized and destroyed. While it's common for odor scrubbers to be used in wastewater treatment facilities, they can also be used to eliminate odors produced during metal finishing, food processing, chemical processing, and fertilizer production.

AquaTreat Odor Scrubbers systems are typically installed along with the grit chambers, bio-solid treatment areas, and wet wells within a wastewater treatment system. The scrubber works by taking in-process air from a fume source before sending it to a scrubber unit. To make sure that contaminants aren't released from the air before reaching the scrubber, the air is taken in while under negative pressure. By using an odor scrubber in your facility, it's possible to remove flammable, odorous, and toxic gases from your wastewater treatment systems. With the high concern over air emissions, many countries in the region have adopted more stringent regulations for control and reporting of these air emissions during truck vacuum operations.

AquaTreat provides scrubber systems and services. These scrubbers are great for odor control and treatment of vapors from sources such as API separators, frac tanks, vacuum trucks and more.

OZONE REMEDIATION SYSTEMS

Ozone water treatment is a treatment method that reduces contaminants through ozone's oxidative strength.

Ozone water treatment begins with the creation of ozone in an ozone generator. Then, ozone is injected into water, and immediately starts oxidizing and eliminating contaminants, such as bacteria, viruses, and metals.

Ozone oxidizes organic material in the membranes of bacteria, viruses, and parasites. This weakens, ruptures, and kills their cells, eliminating the troublesome contaminants. Ozone also oxidizes iron, manganese, and copper into solid particles that can be easily filtered from water by mechanical filtration. Through oxidation, ozone water treatment systems can even rid water of turbidity and bad tastes and odors caused by chlorine.

AquaTreat completely enclosed ozone injection systems are available for accelerated in-situ site remediation. Our fleet of mobile Ozone injection systems come complete with PLC control and remote monitoring capability.

CHEMICAL AND PH ADJUSTMENT UNITS

pH adjustment can be used within a system to maximize its efficacy. AquaTreat Mobile Chemical injection units are designed to either manually or automatically adjust pH in a water stream.

Based on water treatment applications, contaminant concentrations, and desired flowrates, pH adjustment and selection of appropriate equipment can easily be integrated into an existing or new water treatment system.

Chemical injection units can be used for pH adjustment and any chemical dosing or controlling. Moreover, it can be either manually controlled or automatically by receiving signals from online sensors.

OIL/WATER SEPARATORS

Oil/Water Separations systems have been designed to separate large amounts of oil which has been mixed in with water.

Separators have been designed using Stokes Law. Oil/water separators are gravity feed systems, which allows the oil to rise to the top of the water surface then skimmed off and collected in a container. The water is then allowed to pass for further processing.

AquaTreat systems can handle up to 3000 Bpd

These units can be used in oil fields, small industries and petrochemical industries and large fuel stations.

OILFIELD PRODUCED WATER RECYCLING UNITS

AquaTreat enables Oil and Gas service companies to put produced water back to use in fracking and other operations.

Advances in water treatment technologies paired with potential restrictions on oil and gas produced water disposal could incentivize the beneficial reuse of treated produced water in the O&G industry. However, the remote nature of O&G operations limits the applicability of many of these solutions, which may be spatially inefficient, require operator supervision, or are ill-suited for the complex nature of produced water. Furthermore, the responsible, sustainable reuse of produced water as an alternative water source requires standardized analytical techniques for characterizing and determining the toxicity of treated produced water and improving our understanding of the fate and transport of various constituents.

Water withdrawals for hydraulic fracturing in times or areas of low water availability, particularly in areas with limited or declining groundwater resources. Spills during the handling of hydraulic fracturing fluids and chemicals or produced water that result in large volumes or high concentrations of chemicals reaching groundwater resources. Injection of hydraulic fracturing fluids directly into groundwater resources. Discharge of inadequately treated hydraulic fracturing wastewater to surface water and Disposal or storage of hydraulic fracturing wastewater in unlined pits resulting in contamination of groundwater resources.

AquaTreat has solved such problems by offering mobile automated rental units, fast and easily deployed and mobilization on onshore remote areas and offshore installations.

OIL & GAS

POWER

PETROCHEMICAL

CONSTRUCTION SITES

INDUSTRIAL SITES

MINING

FOOD AND BEVERAGE

RESORTS

Aqua Treat
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