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MANUFACTURER OF WATER AND WASTEWATER TREATMENT SYSTEMS

EAAS . MBBR . SBR . EC . DAF . API
RO . UF . NF . O₃ . UV . Cl₂

ABOUT US :

Abram (Ab Rahbar Mohaseb) Engineering Company aims to promote community health and environmental preservation as the principles of sustainable development in the areas of consulting, designing, construction, installation, commissioning, management and supply of water treatment and sewage treatment equipment. Based on the knowledge of its creative and capable specialists and utilizing the technologies of the day, the company has carried out numerous projects in the field of water and wastewater treatment in the country. The company is trying to use the knowledge and experience of the experts of the company and by exchanging views with experts in this field both in the manufacturing sector and in the scientific and academic sectors, take steps forward to upgrade the manufacturing technology in accordance with the needs of customers and optimal use from the sources of energy and, consequently, the production of sustainable products in line with the needs of society and environmental issues

WATER TREATMENT :

- 1 - Design, construction, installation, commissioning and operation of various reverse osmosis (RO) water purification devices in various capacities for various uses.
- 2 - Design and operation of membrane filtration devices (microfiltration, nanofiltration and ultrafiltration) for the clarification of surface and underground water types.
- 3 - Design and manufacture of various Industrial water softener units in various capacities in order to soften the water for industrial use in cooling towers, boilers and ...
- 4 - Design and manufacture of pressurized sand and carbon filters in accordance with international standards for the removal of suspended particles, turbidity and water pollution
- 5 - Design and manufacture of various disinfection systems such as chlorine injection, ozone generators and ultraviolet (UV) devices for the removal of microorganisms and other microbial contaminations for various uses.
- 6 - Design and implementation of transmission and distribution networks, water pumping stations and various reservoirs of water storage in different volumes

PRODUCTS :

Sand Filter



Sand filters are called tanks made of steel, concrete, fiberglass, etc., which are manufactured under atmospheric pressure. These tanks are often cylindrical and circular and sometimes square. As its name implies, pure sand is used in their beds. Sand filters are typically used to remove all types of biologically suspended particles in water up to 50 microns in diameter. These impurities can include all kinds of organic matter, plankton, bacteria and particles resulting from corrosion, mud, paint, and so on. This cleanup is done in the early stages of industrial water treatment systems. Carbon filters are also often used in the water treatment path after these filters. The sand filter system with physical water filtration eliminates suspended particles and turbidity in the water. In this machine, water containing turbidity is passed through a bed containing sand and silica grains. As water passes through the sandy bed, the water suspended between the sand particles and the water is almost free of suspended matter and turbidity. Sand filters are one of the best ways to reduce the concentration of suspended solids in water. These filters have a substrate consisting of one or more types of layers, each containing particles of rock, granite, or anthracite grains. The grain and size of these particles also differ.

Reverse Osmosis Water Purifier (RO)



The reverse osmosis system is one of the products and water purification systems that is designed and delivered in industrial dimensions and uses. The process of reverse osmosis is a method for separating impurities from water. In this method, the separation is the mechanical pressure applied. At present, reverse osmosis has a very important role in water treatment. In reverse osmosis water purification, raw water is pumped through the pump into a chamber with a semi-permeable membrane. Because almost pure water can pass through the membrane, almost pure water is collected on one side of the membrane and concentrated water from impurities on the other side of the membrane. The RO machine can work continuously and can reduce TDS of raw water by up to 95%. Removing bacteria, viruses and other microorganisms by using the reverse osmosis process is roughly 100%. Also, reverse osmosis can remove 99% of minerals and 97% of organic matter and colloidal water.

Chlorine Injection Machine (Chlorinator)



Abram (Ab Rahbar Mohaseb) Engineering Company is designer and manufacturer of various packages and liquid chlorine injectors (also known as chlorine packages, chlorination machines, chlorinators) for water disinfection and sanitation and industrial wastewater treatment in various capacities. Chlorination is one of the most widely used and oldest methods of water and wastewater disinfection in the world. Among the benefits of using chlorine is Creation of residual in water after disinfection, Cheap and availability, ease of use and High effect in disinfection. Chlorination is one of the most common solutions for disinfection and disinfection of water and wastewater in various industries and applications. Since the effect of chlorination on microbial disinfection and disinfection in the water and wastewater treatment process has been proven, the solution of chlorine injection for water disinfection has been approved by the World Health Organization for many years.

Water Softener



Water Softener is one of the most important water purifiers in which the main purpose is to remove ions such as calcium and magnesium from water. This method of water purification is widely used due to the negative effect of high consumption of calcium and magnesium in water on the health of the body and kidneys, as well as the formation of sediment in boilers and other industrial tanks. So that the types of devices used in water hardening such as resin hardener, magnetic hardener and electronic hardener are designed and produced. Haft Industrial Group, as one of the most reputable design and production teams for resin hardeners and other types of water hardeners, will introduce the types of water hardeners, advantages, applications and important points in using this device.

MAJOR ACTIVITIES OF THE WASTEWATER DEPARTMENT INCLUDE:

- 1- Design, construction, installation, commissioning and operation of industrial wastewater treatment process for various industries such as dairy, textile, food, dyeing, chemical, petrochemical, animal husbandry, slaughterhouse, etc.
- 2- Design, construction, installation, commissioning and operation of sanitary wastewater treatment process for Hospitals and clinics, health centers, Towns, residential complexes, Passenger terminals, ports and airports, Hotels, hotels and tourist resorts, interurban resorts, etc.
- 3- Design, construction, installation, commissioning and operation of Grease Trapper Package Such as API, CPI, DAF in various capacities
- 4- Design and operation of sewage collection and transfer networks, such as pressurized and gravity networks

PRODUCTS

The MBBR sewage treatment package



The MBBR sewage treatment package is an effective method in sewage treatment. Using this method to remove organic materials in sewage has a high efficiency, and MBBR process quickly reduces biodegradable organic materials. The MBBR wastewater treatment system consists of several parts. Bar screen part, aeration tank and media, sedimentation tank, chlorination, blower chamber, transfer pumps and sludge return line. The MBBR system has been successfully used for the treatment of wastewater from factories such as paper and pulp industries, cheese industries, refineries and slaughterhouses, wastewater from paper mills, as well as urban wastewater due to its positive characteristics.

The MBBR sewage treatment package



The Sequencing Batch Reactor (SBR) is like an activated sludge treatment system whose operation is based on sequences of filling and emptying cycles. The processes for the elimination of the pollution is like in a conventional activated sludge process, both systems have aeration and sedimentation – clarification processes. The difference is that while in conventional active sludge, the processes are developed in two different stages (aeration in the biological reactor and decantation / clarification in the secondary decanter), in the SBR all processes take place at the same stage / tank. The operating stages of a SBR reactor are: Filling stage, Aeration stage, Sedimentation stage, Emptying stage and sludge purge stage.

The polyethylene wastewater treatment package



The polyethylene wastewater treatment package produced by Abram company is a structure and a complete wastewater treatment plant. This package is designed to treat sanitary wastewater. These packages are made of heavy polyethylene (HDPE 100) and after being manufactured in the company, they are sent to the installation site. Raw sewage is directed into the package from the inlet and treated sewage is discharged from the outlet. These packages are produced and supplied by SBR or extended aeration methods (EAAS) or MBBR. This package includes screening unit, aeration unit, sedimentation unit, chlorination part and sludge return line, which are connected by gravity. All units are integrated in a package.

Industrial Wastewater treatment package by electrocoagulation method



The electrocoagulation wastewater treatment package is a prefabricated treatment plant whose wastewater treatment process is performed by electrocoagulation. These packages are built in the factory of Abram and sent to the installation site after construction. Wastewater is treated electrically in this method. This package is suitable for chemical wastewater, such as car washes, carpet cleaners, factories producing detergents, etc. Electrocoagulation is a special type of chemical coagulation process in which the coagulation parameters are formed through the dissolution of the anode with the flow between the anode-cathode electrodes. The process of Electrocoagulation makes it possible to use less coagulant ions and at the same time more pollutant removal and no need to add conventional chemicals such as conventional coagulation and flocculation.

DAF Grease Trapper



Wastewater treatment by DAF method is flotation with the help of dissolved air. Flotation is a pretreatment operation of industrial wastewater. Application of DAF system for industrial wastewater such as wastewater from sugar factories, starch, huge industrial kitchens, oil refineries, food and chips industries, oil industries, etc. Flotation is one of the operations used to separate solid or liquid particles from a liquid phase. Floatable materials (mainly emulsion oils and organic materials) usually require more care in the design of pre-treatment equipment compared to ventilated materials. For this purpose, water-oil separation equipment is used instead of primary settling tanks in most refineries, chemical units and other industrial workshops.

Septic tank

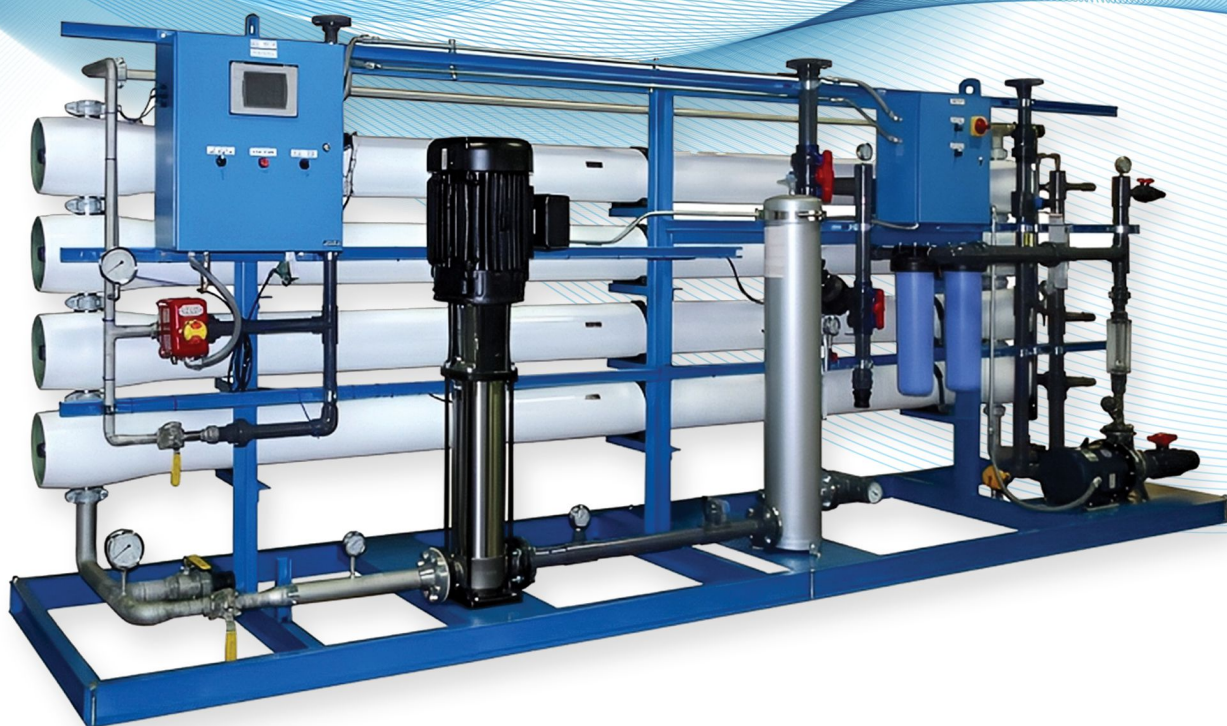


Abram Company is a supplier of all kinds of metal, concrete and polyethylene septic tanks in various capacities. Septic tank is the simplest and most widely used unit used in wastewater treatment, especially human sanitary wastewater. Septic tank has different uses. The septic tank can be used for the sewage storage tank to pump it to the main treatment package. It can be pre-treated in the septic tank with the help of processes such as sedimentation and flotation. These septic tanks are widely used in residential and office complexes, construction camp, industrial factories, hotels, restaurants, and entertainment and sports complexes.

Abram Company is a manufacturer and supplier of high quality products in the water and wastewater treatment industry.

Abram Company make very strong team that offer an impressive collection of water and wastewater treatment systems.

We are big enough to think and act globally , yet small enough to be flexible and innovative.



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