

#### FOR BOOKINGS, CONTACT US: +91-9350043090 ビ info@paolo.co.in ( 📞 )





# ABOUT US

Paolo became the very first brand to bring the top of the class- Reverse Osmosis System technology to India. While the other brands relied on outdated filtration techniques, Paolo Pioneering in the world of state of the art RO, UV and UF technology, and etched its name as the brand that revolutionized the face of water purification in India.

### PAOLO | RO FILTER MANUFACTURERS / SUPPLIERS / TRADERS

We are having well-experienced team of professionals who are passionate and ensures the superior quality of RO plant and water filter or purifier. Our team handles all work situations proficiently to accomplish the preset targets. In addition to this, our technical part has always assisted us in the preliminary design phase of our assortment ensuring an RO plant and water purifier in compliance to the set industry parameters. Along with this, our manufacturing trade name is "Paolo".





# WHAT WE DO

Paolo is an Indian company that specializes in consumer products in the health and hygiene space. Our goal is to provide safety solutions that shall provide you with premium hygiene and a safety valve protection against all kinds of germs, bacteria and viruses in both public and personal spaces.

# **MISSION & VISION**

#### Vision

With innovation at core we are dedicated to bring quality ideas to life and develop premium and intelligent hygienic solutions for complete safety of everyone. With the determination to be a flag bearer of the call taken by our Hon'ble Prime Minister Shri. Narendra Modi for "Swachh Bharat Mission" and "Vocal for Local", Paolo aims to make hygienic products of fine quality that are manufactured by diligent Indian skilled labour that shall benefit the community in a holistic manner.



#### Mission

Paolo mission is to build a community that values and practices the best of hygienic practices therefore, we are determined to develop effective and smart sanitizing solutions that are made of the best of latest scientific technology and the finest raw materials. We aim to serve everyone with diligence and integrity to achieve the best results in innovating hygienic solutions for the welfare of the society. Mission N



# **OUR PRODUCTS**

# WATER PURIFIER RO

### WATER PURIFIER RO - PA-18



- High Purification Capacity Of 15 ltr/hr.
- Wall Mounted Water Purifier.
- Purification by Advanced Ro System Technology.
- Superior Quality Filetr.
- Water Level Indicator.
- Computer Controlled Operation With Filetr Change Alarm.
- Food grade, Non-Breakable, transparent ABS Plastic Instructors.

### WATER PURIFIER RO - PA-19



- High Purification Capacity Of 15 ltr/hr.
- Wall Mounted Water Purifier.
- Purification by Advanced Ro System Technology.
- Superior Quality Filetr.

- Water Level Indicator.
- Computer Controlled Operation With Filetr Change Alarm.
- Food grade, Non-Breakable, transparent ABS Plastic Instructors.



# WATER PURIFIER RO - PA-20



- High Purification Capacity Of 15 ltr/hr.
- Wall Mounted Water Purifier.
- Purification by Advanced Ro System Technology.
- Superior Quality Filetr.
- Water Level Indicator.
- Computer Controlled Operation With Filetr Change Alarm.
- Food grade, Non-Breakable, transparent ABS Plastic Instructors.

### WATER PURIFIER RO - PA-21



- High Purification Capacity Of 15 ltr/hr.
- Wall Mounted Water Purifier.
- Purification by Advanced Ro System Technology.
- Superior Quality Filetr.
- Water Level Indicator.
- Computer Controlled Operation With Filetr Change Alarm.

#### • Food grade, Non-Breakable, transparent ABS Plastic Instructors.



## WATER PURIFIER RO - PA-22



- High Purification Capacity Of 15 ltr/hr.
- Wall Mounted Water Purifier.
- Purification by Advanced Ro System Technology.
- Superior Quality Filetr.
- Water Level Indicator.
- Computer Controlled Operation With Filetr Change Alarm.
- Food grade, Non-Breakable, transparent ABS Plastic Instructors.

### WATER PURIFIER RO - PCA-23



- High Purification Capacity Of 15 ltr/hr.
- Wall Mounted Water Purifier.
- Purification by Advanced Ro System Technology.
- Superior Quality Filetr.
- Water Level Indicator.
- Computer Controlled Operation With Filetr Change Alarm. • Food grade, Non-Breakable, transparent ABS Plastic Instructors.



## **REVERSE OMOSIS PLANT**

## **REVERSE OSMOSIS PLANT**



The advantages of Reverse Osmosis Systems are numerous. The first is that they can purify water without any waste. These systems are available in many different types, from simple commercial RO units to industrial plants. Reverse Osmosis is an effective filtration process used to make clean, safe drinking water.

Reverse osmosis systems are made of membranes. These are spiral-wound sheets of semi-permeable material. The main advantages of these membranes are that they are durable and offer high filtration rates. Thin Film Composite membranes, for example, are widely used for water purification systems, and those membranes are durable and offer a high rejection rate of unwanted materials.

Reverse osmosis units are built with a membrane designed to eliminate hazardous chemicals. Unlike traditional resin-based ion exchange systems, Reverse Osmosis is a self-contained unit with minimal operator interaction. Membranes typically last between two and three years, but the membranes may need to be replaced every few months. The membranes of reverse osmosis systems are also extremely durable, lasting between two and three years.



### SS REVERSE OSMOSIS PLANT



Choosing the right SS RO plant is an important aspect of choosing the right water treatment system for your needs. Not all manufacturers have the same quality and efficiency when making RO plants, and we are able to process the highest quality of water for high-end uses. They are able to meet the needs of different types of businesses and industries and are equipped with all the necessary equipment for this.

Whether you're running a small business or a huge corporation, we, as a Stainless Steel SS RO Plant Manufacturer and supplier, is integral to your overall water supply. These plants not only purify water but also filter the water, which makes the water more healthy, reducing your health concerns. We right SS RO Plants Manufacturer and supplier for you to ensure that your water is crystal-clear and free from harmful chemicals.

A Stainless Steel SS RO Plant Manufacturer and supplier has a variety of options for its customers. Their filtration systems are designed to make the process as simple as possible for the customer. A 500 lph SS RO Plant from an SS RO Plants Manufacturer and supplier will cost you around Rs 90,000. The benefits of a reputable SS RO Plant supplier are numerous and will provide you with quality water for high-end uses.

#### What Do We Offer Stainless Steel SS RO Plants As Manufacturer And Supplier?

As an SS RO Plants manufacturer and supplier based in Delhi and Mumbai, we produce top-quality products. We are competitive and safely process water. As a result, our production meets the highest standards. We also provide customized solutions for the different needs of our clients. In this way, we can ensure the quality of the products. We are proud to offer our products at the most competitive prices.

Our RO plants are crafted to provide convenience to the customers. We offer RO plants with capacities ranging from 100 LPH to 20,000 LPH. They are easy to install and are highly efficient. We use premium raw materials for them and design them by professionals, to deliver the best quality product. Our systems are also designed to be user-friendly, allowing you to operate them from anywhere using a smartphone easily.

SS RO Plants are manufactured for commercial use and are available in a wide range of capacities. These SS RO Plants are made to cater to the needs of various industries, and they are cost-effective and are designed for high-end use.

#### Commercial Stainless Steel Reverse Osmosis (RO) Plant:

There are several ways to get the most benefits from your commercial reverse osmosis RO plant. These include choosing a system that can process large amounts of water and a unit that is easy to maintain. The first way is to find a larger output capacity unit, which is important if you plan to sell the water to other businesses.

Alternatively, you can upgrade the membranes on your current system to a higher quality one. When purchasing a commercial reverse osmosis RO plant, make sure you understand the water quality requirements of your business. Some systems may need pre-treatment of the raw feed water. For example, a system that does not treat hard water or have a high hardness level will need an anti-scale chemical injection unit. Similarly, a system that processes water that is high in iron, manganese, or sulfide will need an oxidation unit.

If you have hard water, you may want to invest in a pre-treatment unit. Almost all commercial RO systems will require pre-treatment, and a water softener or anti-scale injection will be necessary to handle the water. Other water quality issues may require an oxidation unit. You can find these systems easily online, and they also have an easy-to-access design. Most come with a 1-year manufacturer's warranty.

#### Industrial Stainless Steel Reverse Osmosis (RO) Plant:

Industrial stainless steel Reverse Osmosis RO Plants are the ideal solution for water and wastewater filtration. They are fabricated with high rejection TFC membrane elements, resulting in the highest possible yield and efficiency ratio. The resulting permeate is free from salts, and the feed stream can be used again. A high recovery rate means lower water costs and reduced waste. The yield of an industrial stainless steel Reverse Osmosis RO plant is a critical consideration.

Industrial stainless steel Reverse Osmosis RO Plants are highly reliable and easy to operate, and these plants can be customized to meet the specific requirements of your industrial process. These systems feature a multimedia prefilter, an antiscalant dosing system, and ultraviolet sterilization. The unit's control system is comprised of a programmable logic controller and an optional remote Windows-based operator station. Most industrial-grade RO systems start and stop automatically based on feed water tank levels.

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An industrial reverse osmosis plant is equipped with a multi-stage prefilter, water softener, and a post-chlorination system. The machine transports feed water through the multimedia prefilter, which removes all particles larger than 10 microns. The prefilter also contains an antiscalant chemical, which is needed to prevent the membrane from fouling. The feed water goes through a second water stream, which is partially permeable and thus, is called a cross-flow osmosis.

#### Features

- 20 and 5 micron sediment pre-filter
- Adjustable Stainless Steel Waste Needle Valve
- Atmospheric Storage Tank Float Switch •
- Contaminant Rejection 95-99% •
- Stainless Steel Pressure Vessel Fused Off / On Safety Switch Control ٠
- Heavy Duty High Pressure Tubing •
- Liquid-Filled High Pressure Gauge Powder-Coated Steel Frame ٠
- ٠
- Pressure Gauges ٠
- Product and Waste Flow Meters (Recycle Valve & Pre-filter Guages) ٠
- Stainless Steel Membrane Housing ٠
- Stainless Steel Multistage High Pressure Pump ٠
- Thin Film Composite TFC Membrane

#### **Applications**

- Desalination of Bore Water, Seawater, Brackish Water
  Low Conductivity Water for Laboratories, Printing Presses, Laser Cutters, Boilers
- Oil and Gas Operations, Mining Operations, Remote Mining and Exploration Camps
- Pathologies, Laboratories, Pharmaceutical Industry, Cosmetic Manufacturing ٠
- Remote Residential Communities, Resorts, Hotels, and Hospitals

If you are interested in buying a stainless steel reverse osmosis RO plant for your home, you must know the following specifications. Firstly, the raw feed water must be treated before using the reverse osmosis system. If the hardness of the water is greater than 15 grains, you will need to install a water softener or anti-scale system. Other water quality problems like high levels of iron, manganese or sulfide will also require you to install an oxidation unit. The oxidation unit can also be installed in some systems.

Industrial RO systems usually include multiple stages of polycarbonate diffusers, multimedia prefilters, and ultraviolet sterilizers. The main unit of an industrial RO system transports feed water through a multi-stage filter. The media filters remove contaminants that are larger than 10 microns. After passing through the membranes, the feed water is injected with antiscalant chemicals. The anti-scalant chemical is injected into the feed water to control the hardness fouling in the system.

In industrial settings, the output of a reverse osmosis system depends on water pressure, water temperature, and water conditions. The industry standard input temperature is 77 degrees Fahrenheit. To calculate the output, you can refer to a water temperature compensation chart and multiply the GPD of your system by the temperature factor. When calculating your GPD, you need to consider the pressure of the feed and the pressure of the water. The higher the pressure, the higher the output.



### MINERAL WATER PLANT



When you want to start your own Mineral Water Plant business, you'll need to have a lot of space available. This area should be divided into processing, storage, and machinery areas. You will need enough water and energy sources to run the machine. Once you have enough space, you can choose the type of machine you want to use. Once you've decided on the kind of machine, you'll need alum to coagulate the raw water.

Once you have the raw water, you need to find a suitable location. A minimum of 1000 square feet is required. The site must be accessible to your target market, and you need to make sure it has enough power and water supply. Listed below are the requirements for a mineral-water plant. If you're interested in starting your own Mineral Water Plant business, you should know the following: You'll need a minimum of 1000 square feet for your facility. If you're planning to have several tanks, you'll need a place that can accommodate large amounts of raw water.

When building a Mineral Water Plant, you'll need to identify the source of raw water. You can choose a bore well, municipal supply, or other sources. After you've selected your raw water source, you'll need to install a raw water storage system. If you plan on using bore well water, you can use a submersible pump to pump the fresh water. Once you've determined where to get your raw water, you'll need to build a water treatment program. Your water treatment system should include a chlorine dosing system, a water softening process, reverse osmosis, UV sterilization, and Ozone disinfection.

#### **Cost Of A Water Bottling Plant**

The startup cost of a Water Bottling Plant is comparatively low. Most small and medium-sized companies start small, so they can use an open warehouse environment to produce water bottles. For these purposes, a prefabricated metal building is an ideal option. Prefabricated metal buildings do not require interior columns, and they enable the assembly-line equipment necessary for the bottling process. A large facility can cost millions, but a small one may operate with just a handful of employees.

The water bottling plant process results in packaged drinking water, which is technically and hygienically purified. This water has several health benefits, including its high purity. Mineral water bottling plants are essential to the production of packed mineral-water bottles. These plants recycle plain water and convert it into mineral-rich waters. A small percentage of bottled water is used for mineral-rich beverages.

A water bottling plant includes a water treatment system, automatic bottle-rinsing and filling machines, an air dryer, and a bottle packaging machine. A complete bottling line consists of a complete conveyor system and an automated palletizer system. After the process is completed, the bottling plant will cap the bottles. The water can be distributed to stores, restaurants, and consumers. However, it is vital to maintain the quality of the water and the safety of the environment.

#### Bottle Manufacturing By PET Blowing Machine

Among the different bottle blowing machines available in the market, the PET Blow Molding Machine is one of the most effective machines. This machine is able to produce various shapes of bottles in a short time. The rotary blowing machine has a low-pressure blowing system, a slight blow, and a high-pressure blast. These three systems help achieve an even wall distribution without causing any pollution or contamination. The servo motor drive system also allows for a fast response time, allowing the production line to operate quickly and efficiently. The precision of the blowing valve enables high output and clean operation. A slip in the mould allows for moulding the bottles to go smoothly.

Many companies have developed IM technology to meet the needs of different industries. There are different kinds of IM machines available in the market, each offering varying technical features. IM technology can produce up to six blow moulds. The two-stage machines usually operate up to 4000 bottles per hour. However, with the mould and cooling development, the machine's output is increased to 6000 bottles per hour.

The IM technology allows the user to choose between single or double stage blown bottles. Its single-stage machines can be scaled to seven thousand bottles per hour. The IM technology can also be customized to accommodate different shapes, such as the multi-layer jar. The IM machines are available from more than one company, and the customer has a wider choice in terms of the design and specifications. A two-stage device has a large selection of blow moulds with IM technology.



#### **Rinsing Filling - Capping - Sealing Machine**

Capping Sealing Machine is efficient and cost-effective equipment used in the sealing process of liquids, gels, and pills. It is an essential part of the production process as it allows for the proper packaging of products. This machine is capable of achieving a steeples speed and is very flexible. The device can be installed downstream of the cap feeder or filling line. Bottles are manually placed in the Bottle Stand. A footswitch and the cap feeder control the capping head. The machines are ideally suited for multiple capping.

The name container is an important part of the product, and the name of the product is often printed on the inside of the cap to increase its sales value. Manufacturers usually place a wad into the containers and seal them with a hermetic seal to ensure freshness. The machine allows maximum filling speeds, and it can also be used in a filling line to ensure quality and consistency in packaging. It is an ideal machine for all offices, and its low cost and ease of use make it an affordable investment.

There are three main types of capping machines. There are standard screw and linear clutch capper types. Regular screwtype machines pick the cap from the bottle and insert it into a turret star wheel. These are adjustable in torque by changing the distance between magnetic or liner plates. Snap-fit machines use a linear clutch or magnetic torque heads to control the torque. Servo picks and places servo motors control screw/snap-fit cappers. They apply constant motion torque to the caps and monitor the parameters of each capping head.

#### **Bottle Labeling Machine**

A Bottle Labeling Machine is designed to apply labels to bottles. It can be used for various products, including bottles, cans, and containers. Its features vary depending on the type of material. It has a roller applicator that applies labels to the bottle, while the BMR-6 rewinder rewinds waste liner and backing while the label is applied to the bottle. This machine applies both labels to the same area on the bottle.

Usually, these labelling machines come in semi-automatic or manual models. They apply pressure-sensitive labels to a variety of products, including bottles, cans, and tubes. They can also label cylinders, jugs, and other rounded products. These machines have adjustable product placement fixtures and non-contact sensors, making them flexible and versatile. In addition to their versatility and low price, these machines are known for their durability and high-quality performance.

The most common bottle labelling machine uses a thermal transfer printing system. This machine can print up to 15 labels per minute. If you need to label bottles at a faster rate, consider a motorized labelling machine. These machines can label bottles at speeds of up to 20 fpm. A motor-driven bottle labelling machine can process up to twenty containers per minute. A standard 110V unit can handle 60 amps.

#### Water Bottling Plant Maintenance

To maintain the quality of the water produced by your bottling plant, you need to keep it clean and free of contaminants. It would help if you considered ozone treatment for this purpose. This substance oxidizes organic material and bacteria and then reverts to oxygen in time. This is the most effective disinfectant in bottled water. It is also easy to maintain, which makes it a good choice for bottling plants.

It is important to maintain bottled water at its best quality and keep it in its best condition. Many plants do this themselves, but some aspects of the process require expert maintenance. One of these is the water treatment system. A properly-maintained water bottling plant will produce high-quality drinking water for your customers. It would help if you avoided scalding, fouling, or discolouring your water.

There are many filtration systems for bottled water, including ultra-filtration and ozone. Some of them can be integrated into your existing system, which means that you won't have to purchase new systems. You can continue using your existing equipment to fill, rinse, and cap water. By implementing these filtration systems, you can keep your water quality up to par and your customers happy. These systems are very cost-effective and ensure you get the best value for your money.

#### Specifications

Flow Range: 100 LPH to 100 KLPH (100m3)

Materials: Fiber Reinforced Plastic (FRP) / Stainless Steel (SS) / Mild Steel Rubber, Epoxy Lining (MSRL/MSEL)

**Operation:** Semi - automatic / fully automatic plants, Dashboard, Reporting and Analytics (DAR) for managing multi plant operations using Mobile, Laptop, and Tablets.

The most important factor in the specification of a mineral water bottling plant is its source of water. The manufacturer

can use a river supply, bore well, or municipal water source. In order to make the mineral-rich water, the raw or untreated waters are stored in storage tanks with pumps. After treatment, the mineral water is subjected to several chemicals, microbiological, and physical parameters in-house.

Mineral water is a water product containing large amounts of dissolved minerals and may contain various gases. The most common minerals found in mineral water are calcium carbonate, magnesium sulfate, potassium, and sodium sulfate, and some natural springs will also contain these components. For those who wish to make their own bottled water, the process is similar to mineral water bottling plants.



### SEAWATER DESALINATION PLANTS



#### **Seawater Desalination Plant**

The desalination of seawater is quite straightforward and does not require large amounts of energy. It uses special membranes with tiny pores to separate salt, bacteria, viruses and other impurities from seawater. These systems produce water suitable for drinking, while about 50% of the seawater entering a desalination plant is reclaimed by diffusers. The water is then treated and then pumped back into the ocean.

The process of desalination uses a brine heater to increase feed water temperature, and it can use heat energy from a power station or waste stream. The high temperature of the brine flows through evaporation chambers in stages one to ten. A demisting device allows the vapour to rise to the condenser coils during each stage. This condensed water is then fed away for further treatment.

A Seawater Desalination systems Plant works by separating salts and freshwater using high-pressure pumps. The pressure of these plants is 60-70 times greater than that of atmospheric air. The concentrated seawater is then pumped through a process that removes dissolved solids, bacteria, and other contaminants. Moreover, the process is highly efficient as the energy used to separate the salt and water remains with the seawater. This enables it to be recycled and reused, which significantly reduces the total cost of seawater desalination.

#### What Do We Offer Seawater Desalination Plant As Manufacturer And Supplier?

We can help you implement a system that meets your requirements, whether for irrigation or human consumption. In order to provide the highest quality water to our customers, we perform thorough testing early in the project lifecycle. Our solution portfolio includes Procera pretreatment components, which protect membrane desalination systems from unwanted impurities. Our modular desalination systems are custom-made to suit the specific requirements of each project.

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Seawater desalination plants are becoming increasingly common as a source of water for coastal cities. These plants can provide water for more than a billion people. One of the biggest is currently under development in Southern California, and it is expected to have a capacity of 50 million gallons per day. Poseidon Water has made this technology more reliable than its competitors.

Desalination technology is growing in popularity as a solution for water scarcity. The oceans offer a solution to the problem and are becoming more common in many parts of the world. As demand for freshwater continues to rise, more desalination plants are being built. Most desalination systems are the same:

- An intake water system
- A high-pressure reverse osmosis system
- A post-filtration system
- An energy recovery device

#### **Choosing The Right Type Of Seawater Desalination Plant**

The first step in any desalination project is choosing the right type of desalination plant. Generally, brackish water desalination plants operate with 250 to 400 psi operating pressures. Meanwhile, seawater desalination plants typically use operating pressures of up to 800 psi. These pressures are sufficient to produce drinking water from saltwater. However, some plants use lower operating pressures to meet high demands.

There are three basic types of desalination plants. The first type is called reverse osmosis, and it can produce freshwater in a variety of ways. For example, water is treated with chemicals in some plants and then passed through screens. The second type of desalination plant uses coagulation and flocculation. This process uses chemicals to make algae and other organic materials clump together, making them easier to remove in sand filtration. After this stage, seawater passes through a diatomaceous earth filter, a cartridge filter, or another type of filtration. These filters act as backstops to previously trapped particles within the system.

In this type of desalination plant, seawater is desalinated from the brine. In addition, it can produce freshwater by removing impurities and salt from the seawater. Unlike other desalination technologies, reverse osmosis systems are more energy-efficient. For this reason, it is important to know which type of desalination plant you need.



#### Multi-Stage Flash (MSF) Distillation

The process of distilling seawater is called Multi-Stage Flash Distillation (MSF). This process uses several countercurrent heat exchanger stages to separate seawater from the other components. Some MSF facilities may have up to 30 stages. This process is more energy-efficient than traditional distillation processes and can produce high-quality products. However, the MSF technology has some challenges. For example, the equipment is often more complex than traditional MSF processes.

MSF technology can produce high-quality drinking water and other products at reasonable costs. Its capacity ranges from 4,000 to 30,000 m3/day. Its cost is relatively low, but it has limited application due to its energy consumption. Unlike other distillation technologies, MSF does not require large amounts of cooling. AFTER THE BRINE HEATER, the MSF process can be run at a high temperature without any heat.

MSF is a versatile desalination process that uses multiple stages to clean water and distill it into a liquid. These processes are particularly suitable for applications where high-quality water is required. While conventional MSF is capable of producing pure brine, MSF-M can produce purer brines with higher purity levels. In addition, MSF is a much more energy-efficient solution for desalination.

The study involves a multi-stage flash MSF distiller with 20 evaporator stages and a capacity of 600,000 GPD. The data presented in this manuscript were obtained during a site visit. The objective of the study is to compare the performance of the system at 70% and 100% capacity. In addition, overall performance indicators are also included to make a comparison between the two cases. These indicators include specific cooling water flow rates and a performance ratio. Additionally, seasonal variations in the performance of the MSF are analyzed.

#### Multi-Effect Distillation (MED)

Multiple-effect distillation is a water treatment process involving multiple effects and stages. This process usually uses seawater to feed water. The feedwater is first heated with steam in the tubes of the distillation process, and then the saline water is added. Once the feed is at the correct temperature, it is cooled down and filtered using a filtration system. MED is also used for desalinating sewage.

When the steam enters the first effect, the feedwater temperature decreases. This reduction in energy consumption is the first and most significant effect of MED. MED is so efficient that it can save up to 50% of the total annual cost of production. This means that it is the most cost-efficient way to purify water and save energy. MED is particularly effective when combined with other treatment processes.

MED is a powerful and flexible method of desalination, and it is also relatively efficient and can process up to five million gallons of seawater per day. MED units are usually made up of 8 to 16 effects, and the number of effects increases the efficiency of the process. In some applications, a single MED unit can process up to 5 million gallons of seawater in a day.

#### Seawater Packaged Desalination Systems

Packaged SWRO systems are a standard method of seawater desalination. These systems are usually modular and offer different operating and capital cost balances. SUEZ manufactures systems for a variety of applications and salt concentration levels and uses world-renowned brands of desalination membranes. SUEZ's systems are also built to international standards so that they will be reliable for decades to come.

These systems use spin-down screens and oxidants to treat seawater. They also inject coagulants and other chemicals into the seawater. This treatment method is environmentally-safe and meets strict regulatory guidelines. The water can be used for irrigation, emergency drinking water systems, and island resorts. They are especially suitable for Borehole Water Treatment due to their high level of salt and minerals. If you have a seawater-polluted borehole, this treatment method is an ideal option for you.

Seawater Packaged Desalination Systems are designed for residential and commercial drinking water applications. Engineered saltwater filters can produce 750 to 1500 gallons of freshwater per day. These units can also be used for emergency drinking water systems and island resorts. They are also an excellent option for salty Borehole Water Treatment. So, if you want to treat salted water at your home or business, these systems are the right solution.

#### **Uses And Application Of Seawater Desalination Plant**

A desalination plant is a device that purifies water by forcing it through special membranes. The pores in the membranes are tiny and act like microscopic strainers that separate salt from seawater. Half of the seawater entering the plant is transformed into clean freshwater when the process is complete, and the other half is returned to the sea through diffusers for further treatment.

The desalination process produces concentrated water discharged into a receiving body. This concentrated water can be used in industrial processes or disposed of through deep-well injection on land. The concentrated water can be reused by using seawater or for agricultural purposes. It can also be used as a resource in the process of aquaculture. Moreover, it can be used for various industrial processes.

The process of desalination is not limited to pure water, and it can also treat brackish water. The operating pressure of seawater desalination plants ranges from two hundred to eight hundred pounds per square inch. The brackish water desalination process operates at approximately 250 psi, while the seawater desalination process uses up to one thousand pounds per square inch.



### WATER TREATMENT PLANT



#### Water Treatment Plant

A Water Treatment Plant Manufacturing and Service provider company offers solutions to water treatment problems. A water treatment plant is a complex system that uses a combination of chemicals and labor to clean and disinfect wastewater. Many processes require a large amount of water. The Steel, Food Processing, and Pulp & Paper industries use heavy water, and this wastewater must be disinfected to ensure safety and production. The following are some of the different technologies used in water treatment.

A basic chemical manufacturing company develops and produces building blocks for the chemical industry. These companies sell their bulk products to distributors and do not sell directly to endusers. Their business model depends on producing at a large scale. Without significant volume, these companies can't compete. They need to provide a solution that can reduce water pollution and improve water quality. This is where a Water Treatment Plant Manufacturing and Service provider company comes into play.

A Water Treatment Plant manufacturing and service provider company will have a process laboratory to ensure that the water is safe for human consumption. This laboratory will test the water for a wide variety of parameters. These include chlorine, turbidity, alkalinity, hardness, dissolved oxygen, pH, and conductivity. The process laboratory is a critical part of any wastewater treatment system. If you are looking for a Water Treatment Plant Manufacturing and Service provider company, look no further.

#### What Do We Offer Water Treatment Plant As Manufacturer And Supplier?

These facilities improve the quality of water for use for various purposes. These include drinking water, industrial water supply, irrigation, river flow maintenance, and recreational services. The process involves removing contaminants and other undesirable components, and this is essential to human health and allows people to enjoy drinking supplies. However, the process does not eliminate all the contaminants, and it is just one of the steps in the process.

Wastewater treatment plants process wastewater to make it suitable for use in agriculture, pharmaceutical, and chemical processes. The primary purpose of these facilities is to produce commodities such as refined petroleum and primary metals. In order to create these products, water needs to be cleansed of pathogens, organic matter, and inorganic matter. Then, treated wastewater can be discharged safely into the environment or used for land application.

A water treatment plant has a process laboratory to ensure good water quality. Different parameters are measured daily, including chlorine, turbidity, alkalinity, hardness, and dissolved oxygen. The water treatment plant can provide current values of all these parameters for its customers. If you are not satisfied with the results of these tests, contact your local water treatment plant. Its professional staff is trained and highly experienced.

#### **Type Of Water Treatment Plant**

Almost all water sources must be treated before being made drinkable. Different types of treatment systems remove suspended solids, physical constituents, and microbiological contaminants. Most treatment processes also include a final disinfection step, which helps to remove any remaining microorganisms. Some disinfectants are considered persistent, which prevents biological regrowth.

A water treatment plant works by removing both organic and solid wastes. The chemical breakdown occurs with the help of hydrochloric acid and sodium carbonate, and pH levels are monitored to ensure the right balance is achieved. Secondary treatment removes biodegradable matter and suspended particles using a variety of chemical, physical, and biological processes. It is important to choose a water treatment plant based on your particular situation and needs.

The primary treatment stage is the most expensive and involves the most filtration. It removes organic matter and solid waste through chemical processes like hydrochloric acid and sodium carbonate. After the primary treatment process, the solid waste material is sent to a tertiary stage, which uses biological processes to break down the waste and make it useable for the environment. Some of these plants are automatic, which is great for the workplace, reducing the need for personnel control and change. In addition to being convenient, automatic water treatment plants save time and money by not requiring any human intervention.



#### **Technology For Water Treatment Plant**

The latest developments in technology improve the process and increase the overall cost-effectiveness of a water treatment plant. New technologies help water treatment plants eliminate smaller particles, and the membrane-based filtration process is the most effective method for removing these particles. The filtration process can use granulated carbon, sand, and manufactured membranes and is particularly effective for removing salts. AOS Treatment Solutions works with companies around the world to refine the industrial water treatment process.

The YSI IQ SensorNet instrumentation is installed in basins to measure the amount of ammonia and nitrate. The instruments are connected to a wireless system that takes readings from the sensors. With this technology, plant staff can remotely control and monitor major parts of the facility. They can also identify energy conservation efforts and identify areas of improvement. The YSI IQ SensorNet system helps to manage and monitor dissolved oxygen and other pollutants.

The latest MBR technology is a new type of treatment that combines biological and mechanical filtration. These systems are cost-effective, reliable, and space-efficient. One recent example is a case study of a power plant in Texas. Paolo developed a solution to provide makeup water for the cooling pond. A screen box is used to screen out the particles. This wastewater then enters an equalization basin where the flow is maintained up to the membrane's peak capacity.

#### **Specifications**

Flow Range: 100 LPH to 100 KLPH (100m3)

Materials: Fiber Reinforced Plastic (FRP) / Stainless Steel (SS) / Mild Steel Rubber, Epoxy Lining (MSRL/MSEL)

**Operation:** Semi - automatic / fully automatic plants, Dashboard, Reporting and Analytics (DAR) for managing multi plant operations using Mobile, Laptop, and Tablets.

#### Features

- Available in various shapes and sizes
- Economical
- High Efficiency
- High Quality Components
- Longer Life
- Low Maintenance

A Technical Specification for Water Treatment Plant (TSWTP) defines the process steps involved in the water treatment process. These steps are divided into primary and secondary processes. In primary treatment, solids and organic matter are removed. Chemical processes are used to break down the waste materials, and this process may include the use of sodium carbonate, hydrochloric acid, and controlling pH levels. In secondary and tertiary treatment, suspended particles and biodegradable matter are removed. The third and final phase of the treatment process is biological.

The first step in water treatment is to identify the contaminants that are present in the water. These contaminants are then classified into different categories. This process allows the wastewater to be filtered before entering the distribution system. A secondary step involves the use of disinfection by-products. These are not desirable and should be minimized. For instance, a conventional settling basin requires a large volume of space. The last step is to select the processes.

A secondary step in the treatment process involves using ion exchange resins. These ions replace the minerals in the water. The process can remove nitrate from the wastewater or soften the water. The process also has the ability to remove phosphorus, which is a common constituent of municipal waste. The combination of both processes is highly effective and achieves deionization and exceptional water quality. In addition to deionization, this process can remove many of the ionic contaminants in the feed water.



### WATER CHILLER



#### **Chiller Plant**

The Water Chiller Plant is an essential component in the heating and cooling of buildings. These units can generate as much as 180,000 GPM of CHW and cool or heat buildings. A Water Chiller Plant provides a reliable and efficient cooling solution for buildings of all types. Moreover, it can save up to 90% of energy costs. In addition, it can also help in the reduction of a building's carbon footprint.

The entire Water Chiller Plant includes a 200-ton water-cooled chiller, a 100-foot copper pipe, and a 7.5-hp pump for the condenser waterside. It also comes with controls and HVAC accessories. For more information, contact us or browse our website. We are happy to help you with your requirements and are ready to answer any of your questions. Let's get started!

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#### Type Of Water Chiller Plant

The choice of the Type of Water Chiller Plant is largely dependent on its capacity. Typically, a water-cooled chiller will be larger than an air-cooled chiller. Both types of water-cooled chillers have two main loops: the primary loop pumps chilled liquid through the chiller at a constant rate, while the secondary loop delivers chilled fluid to air handling units or fan coil units to provide conditioned air.

The main components of a water-cooled unit are an evaporator and a cooling coil. The evaporator and cooling coil are the same equipment used in a vapour compression cycle. The primary refrigerant is stored on one side of the evaporator, while the secondary refrigerant is stored on the other. The chiller then cools the liquid to maintain the temperature in the room.

The air-cooled chiller plant uses less space than a water-cooled unit, but it is much louder. The air-cooled unit is located outside of the building, increasing the cooling tower's noise. Moreover, the noise produced by this cooling system is significantly louder than the one produced by a water-cooled unit. A sound increase of 10 dB is equivalent to double the noise generated by an air-cooled chiller.

#### What We Do As A Water Chiller Plant Manufacturing Company

Our goal is to make your new chiller the most energy-efficient one possible. We focus on two main goals: increasing energy efficiency and lowering maintenance costs. The first goal is to lower overall plant costs. We can do this by offering several different options, including a water-cooled chiller plant.

The second goal of our Water Chiller Plant Manufacturing company is to minimize the costs of maintaining and operating your watercooled chiller. We can help you determine the most efficient chiller for your facility. The first step is to evaluate your cooling needs and the size of the system. We recommend a water-cooled unit if you need a big chiller for a small building. Then, it would help if you looked for an appropriate cooling tower.

The second goal is to determine how much cooling capacity you need. A water-cooled chiller must be coupled with a cooling tower. A larger water-cooled chiller will require more space than a smaller one. A larger water-cooled chiller may be necessary for a high-rise building. Choosing a water-cooled unit is the best option for high-rise buildings. Then, you can use a cooling tower for a smaller facility.

#### Specifications

Flow Range: 500 LPH to 10000 LPH

Materials: FRP, SS

**Operation:** Semi - automatic / fully automatic



### POUCH PACKING MACHINE



#### Water Pouch Packing Machines

The liquid pouch packing machine manufactured by Paolo can pack three to four hundred pouches per hour and is available in a range of sizes, from 100 ml to 500 ml. This fully automatic machine incorporates microprocessor-based PID technology and is highly energy-efficient. Moreover, the machines are lowmaintenance, and the company offers after-sales service and a one-year service warranty.

Paolo is a manufacturing and service provider company that manufactures a wide range of water pouch packing machines. This equipment is suited for a variety of applications, including snack food, mineral water, soft drinks, and milk. Its high and low lifting buttons enable it to match with other equipment to form a production line. It also comes with adjustable volume. Its stainless steel construction makes it durable and easy to clean.

The manufacturer sells three types of water pouch packing machines. The automatic water pouch packing machine fills bottles automatically, and the semi-auto model requires people to fill the bottles manually. The automatic version is equipped with a pump that controls the water-filled volume. It also has multi-head outlets that can fill several bottles at a time. The automated water bottle packaging machine is an automated machine that can be integrated into a production line.

#### What We Do As Water Pouch Packing Machines Plant Manufacturing Company?

We are one of the leading water pouch packing machines used by many branded entities. This machine can also pack mineral water or other liquids, such as juices and juice blends. The main purpose of these machines is to pack small amounts of liquid into a convenient pouch. We provide a variety of designs for our customers, based on their packaging requirements. We provide a comprehensive range of solutions for various types of industries.

We manufacture a variety of filling machines that can fill beverages. Our automatic water bottle filling machines are designed to fill bottles from 100g to 500g. These machines can handle high-volume filling, ensuring a consistently accurate product. We can provide semi-automatic and fully-automatic water pouch packing machines to meet any customer's needs. We are known for the quality of our products, as they are built to last for years.

Our Water pouch packing machines are available in a variety of configurations and capacities. The most common models are semiautomatic and automatic, with a maximum of 5000 bottles an hour. This type of machine is versatile, offering rapid and accurate filling. Allpack engineers offer fully-automatic and semi-automatic water pouch packing machines and all the accessories needed to maintain them. We also offer complete filling lines for all your beverage needs.

#### **Type Of Water Pouch Packing Machines Plant**

A water pouch packing machine is a mechanical device that fills liquid into bottles. It is designed to meet hygiene parameters and provides high speed and precision while filling. These machines can be used in packaged drinking water, mineral water and other industries. These types of pouch packing machines are available at a competitive price. The benefits of water pouch packing machines are many. A complete water pouch packing plant can be set up in a day, and it is very easy to operate.

The water pouch packaging machine is used in the juice, soft drink, and pharmaceutical industries. The machine is designed to fill bottles at a high rate and is usually built to process two- and three-piece groups. The machine includes a heavy-duty structure and a cap feeder with a capacity of two- to three-hundred- and two-to-eight-caps-per-minute.

The water pouch packing machine has a round tank and filling valves that range from 250 ml to 2000 ml. The filling machine has a twelvehead rinsing nozzle and a 12 set catcher, which allows the bottle to be washed from inside out. The machine also has a capping die that tightens the cap to the desired size. The machine is mechanically operated, with a capacity of two thousand to three-hundred bottles/hour.



### RAW WATER TREATMENT PLANT



#### **Raw Water Treatment Plant**

The main process used to treat raw water is the removal of colloidal materials that are suspended in the water. This is accomplished through a clarifier, which is an industry-standard. Conventional clarifiers are used in large industrial flows, and they are made of hollow fibres that withstand a wide range of pressures. A variety of chemicals are used to clean the water. Ultimately, the result is a cleaner, safer environment for the human population.

A raw water treatment plant must filter the water pumped into the plant. Many pollutants can be present in raw water, including silica, iron, and bacteria. The iron, for example, can cause an unpleasant taste and odour in food and can coat the cooling tower components. Hardness can build up in the equipment and clog pipes and equipment. The hardness will impede the flow of the water and cause it to corrode and foul.

The raw water enters the plant site through the main inlet. Next, the treatment process begins with mixing reactors that add chemicals. These chemicals help coagulate fine particles into larger ones. The most common coagulants are aluminium-based compounds. pH is adjusted to adjust the concentration of the coagulants to remove organic matter. Finally, a backwash recycle is returned to the head of the plant to recycle the treated water.

#### What We Do As Raw Water Treatment Plant Manufacturing Company?

A Raw Water treatment plant is a process used to clean raw water. Its main purpose is to remove impurities from raw water. The output of this process can be reused or safely disposed of. Many industrial processes require treated water, and some are wastewater, boiler water, cooling water, and other processes. A Raw Water treatment plant is used in any of these areas.

The basic system of a treatment plant consists of a tank and a series of rectangular tubes. The solids are deposited in a sludge pit at the bottom of the tank, and the waste is then discharged into a sludge pond for further processing. There are several types of raw water treatment plant manufacturing companies. If you need a custom-designed system, contact one of our representatives.

In addition to providing quality service, we also offer installation services for your Raw Water treatment plant. We can provide the best and most cost-effective solution for your needs. We will make sure your Raw Water treatment plant is ready for operation from planning to construction to operation. Our engineers will provide the best possible service for you and your company. You can trust our reputation and experience.

#### **Type Of Raw Water Treatment Plant**

Raw water is obtained from many sources, including surface water, groundwater, and stormwater. Industrial plants typically pull water from a nearby surface water source through a grate or mesh screen. These units remove larger objects from the water and pump them to the main facility, where treatment begins. In this step, raw wastewater undergoes a series of chemical and physical processes to remove the contaminants. A final step is to purify the wastewater, if necessary.

The first step in the raw water treatment process is the settling pond, which holds the water after it is diverted from a river. The settling pond allows debris and sand to settle out of the water. This pond has a capacity of thousands of tons, making it an ideal choice in the event of muddy river water, pollution, or an accident. After the water is filtered, it can be used in a conventional water treatment plant to reduce contaminants and disinfect water.

The second step is sedimentation. Sedimentation involves the use of coagulation chemicals to help solid particles attach. The heavier solids sink to the bottom of the clarifier. After sedimentation, the clear water at the top of the clarifier flows to the next step in the treatment process. The water at the top of the clarifier flows towards the next stage. The treatment process is completed. These facilities will keep raw water safe for consumption and other uses.

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#### Specifications

Flow Range: 2 KLD to 1 MLD

Materials: Fiber Reinforced Plastic (FRP) / Stainless Steel (SS) / Mild Steel Rubber, Epoxy Lining (MSRL/MSEL) and civil construction

**Operation:** Semi - automatic / fully automatic plants

#### Features

- Low maintenance
- Easy installation
- Longer service life

A Raw Water treatment plant is a facility that removes harmful chemicals from water. This wastewater comes from various sources, including rivers, lakes, and infiltration wells. Before the final process, it must be screened to remove debris and suspended particles.

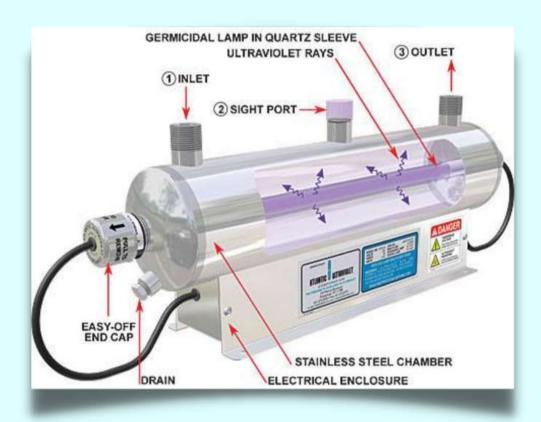
Then, it must undergo coagulation and sedimentation, which break down solids into smaller ones. A secondary treatment stage is used to remove biodegradable matter and suspended particles. This stage uses chemical, physical, and biological processes to treat the raw water.

The first step in raw water treatment is to raise the pH level of the water. There are two types of lime processes - warm and cold. The warm lime treatment removes more hardness, while the cold lime process removes more. After this process, the raw water is pumped into distribution systems. The second step is to remove nitrate, and this step is called deionization. Once this is completed, the treated water can be reused for various purposes.

The next step in raw water treatment involves removing the most harmful chemicals. This process is also known as clarification. This step uses enzymes to kill bacteria and disinfect water. After the lime process, the treated water is pumped into a holding tank or the distribution system. The water is pumped into a loop throughout the city in a municipal treatment system. A basic raw-water treatment plant might have standard components, but the facility's specific needs will dictate the exact type of raw-water treatment plant that is best for it.



### ULTRA VOIET FILTRATION



#### **Ultra Voiet Filtration**

The water treatment industry is increasingly demanding safe water. A clean and disinfected water supply is essential for the pharmaceutical, food, and cosmetic industries. Most pharmaceutical companies rely on UV systems for water disinfection. In the cosmetic industry, UV sterilization has become the preferred method. Specially designed wastewater UV systems disinfect sewage. As a result, many of the world's largest brands use ultraviolet sterilization to produce the highest quality products.

There are several advantages to UV technology. It is an effective way to disinfect water and remove inorganic and organic contaminants. It is also used in areas where conventional chlorine disinfection is ineffective. This process improves the taste, odour, and colour of water while requiring no toxic chemicals. It is a cost-effective way to treat water and meet environmental sustainability goals. To find out more, visit our Ultra Violet Filtration Plant Manufacturing website.

The UV lamp is the most important component of an Ultra Violet Filtration Plant Manufacturing company. This component gradually degrades over time due to continuous usage. It is important to periodically replace the UV lamp to ensure that the system continues to work as efficiently as possible. A UV water treatment system also has filters in its design, which accumulate particles as it runs. This means you have to clean and replace the filters regularly.

#### **Type Of Ultra Violet Filtration Plant**

There are three main types of UV filtration plants: individual filters, combined filter effluent, and hybrid systems. Regardless of the type of ultraviolet filtration plant you choose, you'll need a reliable power source and a constant flow rate to operate it. You'll also need a UV reactor connected to a continuous power supply. In addition, each unit should have a WaterMark symbol or a similar standard to ensure proper operation.

The operating costs for a typical UV system are considerably lower than the operating costs of a conventional hypochlorite plant. Although the initial capital cost of a UV unit is more expensive than an equivalent hypochlorite system, the UV process is more efficient. It provides a return on investment in just a few years.

An ultraviolet disinfection unit can be of two different types. The first type uses ultraviolet light to clean water, and it has a low-flow capacity and is ideal for small and medium-sized facilities. It is designed to disinfect large volumes of water. Depending on the quality of the raw water, the wavelengths of UV light can be as low as 50 nanometers and as much as ten times lower.

#### Specifications

Flow Range: 250 LPH to 20000 LPH

Materials: Stainless Steel (SS)

**Operation:** Semi - automatic / fully automatic plants

UV filtering plants are used to control chloramines in the water. It is crucial to choose an ultraviolet filtration system designed to treat the entire water flow through a pool's circulation system. When choosing a UV filtering system, its assumed transmittance should be 94% or higher, measured with a UV light of 254nm in a cell. A chlorine reduction system must be equipped with a medium-pressure lamp with a 200, 220nm encertum

200-320nm spectrum.

There are two types of UV disinfection: point-of-entry and in-line systems. There are two basic UV disinfection systems: in-line and pointof-entry UV filtration plants. The capacity of UV disinfection equipment varies from 0.5 to several hundred GPM. Particles and turbidity in the water can shield bacteria, so it may be necessary to perform pre-treatment to reduce turbidity. The maximum concentrations of bacteria or fungi for effective UV treatment.

When selecting a UV disinfection unit, it is important to consider your water quality and situation. Specifically, the clarity of the raw water will determine the amount of UV light transmitted. High turbidity water will need to be treated with pre-filtration and five- to twenty-micron filters. In the case of a low-turbidity water source, a UV disinfection device should handle this water without any further upstream modifications.



### OZONATION TREATMENT PLANT



#### **Ozonation Treatment Plant**

An ozonation treatment plant is a process that adds Ozone to the water system to remove pollutants. The neutral pH of Ozone does not affect the pH of the water system, and it also does not affect dissolved solids, calcium, or alkalinity. It can remove dissolved metals with a very low concentration because the metals reach their highest oxidation state, precipitate out of the water, and remove through filtration. The Ozone component of the system also has a very short half-life, lasting about 20 minutes in water.

There are several advantages to using Ozone to treat water. It is effective over a wide pH range and has no residual disinfection. It is a safe and environmentally friendly treatment option that doesn't add any chemicals to the water. But it does require special equipment and the expertise of a professional. Because Ozone has no residual effects, it is not as cost-effective as other water treatment methods.

The ozone technology is also a good option for treating emerging contaminants. Cyanotoxins produced by blue-green algae are one of the biggest concerns, and other chemicals, such as pharmaceuticals, can find their way into water systems.

#### What We Do As Ozonation Treatment Plant Manufacturing Company?

An ozone treatment plant is an important piece of the treatment process. In order to effectively treat water, it needs to be able to react with the dissolved minerals and trace amounts of organic matter. In practice, an ozone treatment plant will remove contaminants from water while increasing its disinfecting capacity. Typically, the ozone is generated in large scale systems using bulk ozone-producing techniques or corona discharge. To ensure efficacy, ozone test strips must be used to ensure the ozone concentrations in raw water. Because of its rapid reaction with viruses and bacteria, ozone is often combined with post-filtration to remove the remaining contaminants.

The oxidation process uses ozone, a powerful oxidizing agent that can react with a wide range of bacteria, viruses, and protozoa. Because it has a fast reaction time, ozone treatment is more effective than chlorination and produces no residual disinfection. This treatment process requires more sophisticated equipment and professional training, but the benefits outweigh any disadvantages.

The first step in an ozone treatment plant is determining the necessary amount of ozone. The amount of ozone used depends on the pH of the water, and lower pH levels mean that the wastewater will have better disinfection results. In addition, ozone requires a lot less energy than chlorine, which makes it more efficient for many industries. Our process uses low-voltage UV radiation and is also more environmentally friendly.

#### **Type Of Ozonation Treatment Plant**

An ozonation treatment plant is used to reduce micropollutants released from wastewater. It is also the most effective way to treat wastewater because it does not produce residual by-products such as chlorine or metals. However, ozonation cannot remove all contaminants, and there are some restrictions. Typically, an ozonation treatment plant has two parts: an ozone generator and a reactor. The ozone is produced in bubbles and is then introduced into the water.

The process is more efficient than chlorination, as it uses less energy. The process is highly effective and efficient, but its health effects are not well understood. Ozonation treatment is not the best option in some areas because it can generate by-products. Fortunately, ozone is an excellent disinfectant, but it is more expensive than chlorination. The only drawback of ozonation is that it has no residual benefits, which makes it unsuitable for some applications.

There are many reasons why ozone is the best choice for water treatment. It can reduce harmful chemicals and non-biodegradable organic compounds while improving taste, colour, and odour. Furthermore, ozone helps disinfect water and increases the biodegradability of impurities. Compared to chlorination, ozone time affective in reducing ROD/COD and increases the biodegradability of

impurities. Compared to chlorination, ozonation is more effective in reducing BOD/COD and increasing DO levels.

#### Specifications

Flow Range: 2 KLD to 1 MLD

Materials: Fiber Reinforced Plastic (FRP) / Stainless Steel (SS) / Mild Steel Rubber, Epoxy Lining (MSRL/MSEL)

Operation: Semi - automatic / fully automatic plants



# SEWAGE TREATMENT PLANT

### SEWAGE TREATMENT PLANT



#### Sewage Treatment Plant

A Sewage Treatment Plant is a facility that treats sewage and produces a discharge-ready effluent. It is a necessary and efficient way to prevent water pollution from raw sewage discharges. Read on to learn more about these facilities and why they're important for public health. In addition, a properly-run Sewage Treatment Plant will reduce energy costs, and a well-maintained Sewage Treatment Facility will save taxpayers thousands of dollars a year in utility costs.

A Sewage Treatment Plant treats sewage with a combination of physical and biological processes. The result is environmentally safe sewage water and a solid waste product known as biosolids or sludge. This solid waste is often used in agriculture and is also an important fuel source. Many manufacturing and industrial sites use water from the main sewer system. This wastewater contains nitrates, phosphates, and other pollutants.

A Sewage Treatment Plant is the most efficient way to treat raw sewage. These facilities treat wastewater using different steps, such as aeration, breaking, filtering, and settling. The effluent produced by a Sewage Treatment Plant is cleaner than obtained through a conventional septic tank. A sewer company can avoid costly and timeconsuming sewer maintenance and repair using a Sewage Processing Facility.

Sewage water treatment procedure includes several processes like chemical, biological and physical processes of water treatment. These methods of treatment successfully remove mud, effluents and poisonous materials from wastewater of sewage. The most advanced technologies are used in our sewage water treatment plants.

#### What Do We Offer Being A Sewage Treatment Plant Manufacturer?

Being a Sewage Treatment plant Manufacturer is an excellent opportunity for a private company to get involved in municipal water projects. Developing a sewage treatment method is one of the hottest sectors in the municipal water industry, and private players can help public authorities develop more sustainable wastewater management practices. The wastewater treatment process incorporates organic, chemical, and physical procedures to process wastewater and produce a safe, environmentally friendly by-product.

Industrial wastewater treatment systems are also essential for environmental protection. They can be installed in vehicle wash bays, fuel storage depots, transportation hubs, and power generation facilities. The resulting sewage is often discharged into local sewer systems and must meet local environmental specifications to protect water quality. Typical contaminants include solvents, detergents, grit, lubricants, and hydrocarbons.

Industrial wastewater treatment systems have several components. These components are crucial for cleaning and disinfecting wastewater. Before it is discharged, wastewater must meet certain discharge parameters set by local communities, State Air pollution Management Boards, and Central Pollution Handle Boards. These limits are necessary to protect land and water sources from pollutants and prevent sewage from polluting these areas. A well-designed and maintained sewage treatment system will make your business run more smoothly and efficiently.

#### Use Of Sewage Treatment Plant STP In Various Industry

A sewage treatment plant is an industrial unit that uses the principles of biological aeration to treat wastewater. The sewage is filtered through a process that involves the use of filters. The water flows through the screens and settles in the treatment basins, where it is broken down into small pieces. Live bacteria in the clarifier feed on these particles and the activated sludge is produced as a by-product of the process.

A sewage treatment plant is designed to remove organic material from wastewater. The process requires four types of equipment. The first is a primary sludge blanket, and this blanket is then pumped into the activation sludge process to decompose the organic material. The third type is a secondary sludge blanket. This last type of plant removes dissolved organic matter and provides cleaner wastewater.

The second type of wastewater treatment plant is a secondary plant. It combines a secondary sludge treatment system with a clarifier and a sedimentation unit. It then separates waste and sediments, resulting in a clearer water source. The third type is a treatment system for contaminated water. Depending on the size and location of the wastewater, an STP will be built within the city limits.



#### How Sewage Treatment Plant STP Work?

A sewage treatment plant is a complex structure that takes raw sewage and cleans it up. This process consists of three basic steps: primary, secondary, and tertiary treatment. The first two steps of the sewage process are known as aeration and are performed in the main unit. The second step is a secondary clarification, which takes place at a specialized sludge aeration unit. This process involves removing excess BOD, COD, and nitrate. The final step is a tertiary treatment, which polishes the sewage for discharge to a watercourse or soakaway.

The final step in the sewage treatment process is the discharge pump. A duplex sludge pump is installed in the last compartment of an STP. This pump is non-clog centrifugal and coupled to motors. Level switches in the sterilization tank control its automatic operation. The pump operates on auto mode when it has no sludge. Its inlet pipe is arranged with a slope to allow for cleaning during maintenance.

After the sludge is screened to remove any non-soluble material, the wastewater is passed into aeration basins, where it undergoes a series of steps that will clean it. This process requires an air supply in order to keep the microbial action alive. The sludge is the reservoir for the microbes, which consume pollutants. The air supply is what keeps these microbes alive. The sludge is a byproduct of the process.

#### SBR Based STP Plant Working

The basic mechanism of an SBR-based STP plant is the use of a single tank to treat multiple aspects of wastewater. The SBR design uses a batch system that treats sewage water in one tank. The sludge is then treated. The final product of the process is clean water. Once the sludge is treated, it is sent to a biological filter to remove impurities.

The SBR process began in the 1950s when Pasveer and co-workers combined intermittent batch treatment principles with continuously fed-batch treatment principles. This resulted in the variable volume-activated sludge system. The process went through further development in the United States and Australia, which led to EPA grant aid in 1986. Since then, the technology has evolved to include reliable microprocessor controls and aeration equipment.

There are several configurations of SBRs. The most common configuration consists of more tanks that operate as plug flow or completely mixed reactors. Each tank has a flow-through system where raw wastewater enters and treats wastewater exits at the other end. Some SBR systems consist of multiple tanks, one in aerating and one in a settled mode. Additionally, some SBR systems incorporate a bio-selector consisting of a series of baffles and walls.

In SBR-based systems, the effluent is treated through the oxidation of ammonium nitrogen. As a result, nitration of the nitrogen compounds occurs. The SBR process also allows for the nitrification of other organic compounds. The effluent produced is typically cleaner than before and has fewer suspended solids. Its single tank design allows it to meet the requirements of a variety of industrial settings.

#### **MBR Based STP Plant Working**

An MBR-based STP plant works as a closed-loop system to remove the organic matter from water. Each stage of the treatment process has a different flow rate. A high-efficiency MBR-based STP plant can process up to 2 million gallons of wastewater per day, and a high-efficiency MBR-based plant can treat up to 1.2 million gallons per day. A typical wastewater treatment plant will operate at about 98 percent microbial activity.

MBRs are designed to be highly efficient at removing a range of pollutants. Their biodegradation performance is highly dependent on the bacterial community they inhabit. Because the bacteria in the MBR are unable to degrade organic matter, they produce EPS. The MBR-based STP plant will be less affected by the biomass byproduct than other technologies. The EPA has published a guideline for evaluating MBR-based STP plants.

MBR-based STP plants are highly effective in treating hard-to-treat wastewater. The MBR technology is designed to operate and requires a small footprint, and the OPEX is low compared to other methods. However, HF membranes are more expensive than FSiMBRs and require higher energy. Nevertheless, MBRs are very efficient and are increasingly implemented in municipal and industrial wastewater treatment systems.

#### **MBBR Based STP Plant Working**

This process uses a biofilter and suspended growth and utilizes the entire tank volume for biomass growth. The biofilm grows attached to carriers which are then agitated. The size of the MBBR reactor depends on the size of the wastewater, and the design of the MBBR depends on the characteristics of the wastewater and the location. Typically, the MBBR plant uses a rectangular mesh sieve but can also use cylindrical bars.

The MBBR process is a highly efficient wastewater treatment technology that offers the most reliable results and requires very little maintenance. Unlike conventional septic tanks, MBBRs can self-maintain a high level of productive biofilm without any chemical additives. The mobile biocarriers are designed to adjust to load fluctuations so that they can be easily adjusted. As a result, the MBBR-based STP plant can handle large volumes of wastewater.

MBBR is an innovative process for wastewater treatment. It consists of a bed of material that holds microorganisms in water and helps them decompose organic matter in wastewater. The biofilm will also provide oxygen, which helps the biological process to continue. Compared to SBR, the MBBR process will produce less waste sludge. However, the trickling filter process is not as reliable. It requires the expertise of a skilled operator, and it often clogs.



### PORTABLE SEWAGE TREATMENT PLANT



### Portable Sewage Treatment Plant

Paolo offers a high-quality range of Integrated Sewage Treatment Plants, which are used for treatment of both sewage water as well as solid wet waste together. These products are used as an alternative energy source and treated water can be used for different purposes such as farming, gardening, washing and flushing

### **Customized Solution:**

Selection of a plant depends on application, water quality and water consumption. Our water experts are at your service to ensure the best customized solution.

### Specifications

Flow Range: 2 KLD to 5 MLD

**Materials:** Fiber Reinforced Plastic (FRP) / Stainless Steel (SS) / Mild Steel Rubber, Epoxy Lining (MSRL/MSEL) and civil construction.

**Operation:** Semi - automatic / fully automatic plants

### Applications

- City Waste Management
- Hospitals
- Hotels & Resorts
- Industries (Food, Paper, Chemical, etc)
- Residential Complexes
- School & Institutions



### DOMESTIC SEWAGE TREATMENT PLANT



### Domestic Sewage Treatment Plant

The Domestic Sewage Treatment plants offered by us possess user-friendly operating consoles and are backed by the latest technologies and equipments. These plants aid in cleaning the domestic type sewage by either aerobic or anaerobic processes. Furthermore, we provide the facility of customization for the clients' own specifications.

### Specifications

Flow Range: 2 KLD to 5 MLD

**Materials:** Fiber Reinforced Plastic (FRP) / Stainless Steel (SS) / Mild Steel Rubber, Epoxy Lining (MSRL/MSEL) and civil construction.

**Operation:** Semi - automatic / fully automatic plants

### MBBR SEWAGE TREATMENT PLANT



### **MBBR Sewage Treatment Plant**

Our company is involved in offering an extensive range of Sewage treatment plant using technology MBBR The MBBR technology offered by is a leading-edge biological solution for wastewater treatment, it employs thousands of polyethylene biofilm carriers operating in mixed motion within an aerated wastewater treatment basin.

Each individual biocarrier increases productivity through providing protected surface area to support the growth of bacteria within its cells. The technology utilizes the advantages of both activated sludge and other biofilm systems (e.g. biofilters, biorotors etc.)



# EFFLUENT TREATMENT PLANT

### EFFLUENT TREATMENT PLANT



#### **Effluent Treatment Plant**

Paolo is a specialist in industrial effluent treatment. We have created a pan India reputation for providing professional, technical and cost effective Effluent Treatment Plants.

#### **Integrated Effluent Treatment Solutions**

- Design and supply of Effluent Treatment Plants and associated equipment
- Consultancy
- Pilot effluent treatment plant trials

Design and Supply of Effluent Treatment Plants and Associated Equipment Paolo. has a proven record in designing and supplying effluent plants. We can supply the equipment for customers to install or arrange for our team of highly skilled engineers to carry out the installation onsite.

#### **Plant Design**

Conventional treatment of effluents, depending upon the specific needs, includes flocculation, flotation, aeration and standard clarification technologies. Paolo. has experience in designing and installing these technologies successfully in a wide range of industries. Our design method normally includes the approach of taking industrial effluent through physico-chemical conventional treatment stages followed by supplemental membrane treatment where this is needed, for instance due to regulatory requirements.

#### What Is Effluent Treatments Plant (ETP)?

Water is one of the essential components in today's manufacturing processes. Water is used in all most all types of industry, like the Pharmaceutical industry, Chemical Industry, Automobile Industry, Textile Industry, Food Processing Industry, and the list goes on and on.

Water gets contaminated with various external substances like chemicals, dust, organic compounds, biological material, debris, dirt, grit, pollution, toxic, non-toxic materials, and polymers, also called Effluent. This water is not fit for environmental discharge and harmful to all living beings.

Effluent Treatments Plant (ETP) is a system that removes above given Effluent from industrial wastewater and makes it fit for Human use and fit for Environmental discharge.

#### How Effluent Treatments Plant (ETP) Works?

ETP plant is designed in a multiple-stage treatment process, depending upon Effluent's chemical and physical characteristics present in the industrial wastewater. Every company or industry has a different composition of wastewater, so every company needs customized ETP projects.

#### Theoretically, The ETP Wastewater Treatment Plant Is Designed In Four Levels.

**Preliminary level:** At this level, physical waste is removed using a physical process.

Primary Level: Large solid and organic matters are removed using physical and chemical processes.

Secondary Level: At this level, biodegradable material and suspended particles are removed using a biological and chemical process

**Tertiary Level:** AFinally, in this level of wastewater treatment, remove remaining suspended and dissolve material using Physical, Chemical, and Biological processes.



#### What Are The Uses Of Effluent Treatments Plant (ETP)?

Effluent Treatments Plant (ETP) is used in various industries to treat industrial wastewater containing physical, chemical, and biological matters. Following are a few popular smalls and big industries using ETP.

a. Pharmaceuticals Industry b. Chemical Industry c. Automobile Industry d. Textile Industry e. Food processing industry, e. Electrical and Electronics Industry f. Hotel Industry g. Hospitals h. Power Plants, i. Car wash center j. Heavy Engineering Industry k. Shipping Industry l. Agriculture Industry and many more.

#### What Are The Benefits Of The Effluent Treatments Plant (ETP)?

The best part of ETP is that it controls environmental pollution. ETP treats harmful polluted industrial wastewater at its origin. Manufacturers can reuse treated water, again and again, which reduces the industry dependency on continuous water supply. Groundwater and other water sources near industry maintains its quality standards and supports human and living beings to survive naturally—less resistance from a resident living nearby toward industry, over health concern.

#### What Is The Difference Between STP And ETP?

Sewage Treatment Plant (STP) is a wastewater treatment plant that treats domestic or municipal generated waste, also called Sewage. Domestically produced waste can be chemical, physical, or biological waste.

Effluent Treatments Plant (ETP) is a wastewater treatment plant that processes and treats industrial wastewater called Effluent. It can also be chemical, physical, or biological waste.

#### Why Is The Government Promoting And Publishing Compulsory Notification To Set Up Effluent Treatments Plant (ETP) In Factories And Organizations?

There is a common consensus among the world governments to save our mother earth's environment. All governments worldwide are taking a variety of steps, investing in different projects, and making the law to save the deteriorating environment and improve current environmental quality.

Disposing of industrial wastewater, the Government is notifying many laws and guidelines to treat wastewater at its origin in factories and organizations.

#### Best Effluent Treatments Plant (ETP) Manufacturer And Suppliers Company?

Suppose you are looking for Best Effluent Treatments Plant (ETP) manufacturing company.

Paolo is a one-stop solution for wastewater treatment plant manufacturers and suppliers. Paolo manufacture and commission all range and type of Effluent Treatments Plant (ETP) for varieties of industry and its effluents.

Paolo has experience of 10+ years in the wastewater treatment industry. Implemented 1500+ projects for 1000+ client from 10+ countries.

Apart from Effluent Treatments Plant (ETP), Paolo also deals in Sewage Treatment Plant (STP), Industrial RO Plants, Demineralisation (DM) plants, Seawater Desalination Plant, Water Softeners.

#### Specifications

Flow Range: 2 KLD to 1 MLD

**Materials:** Fiber Reinforced Plastic (FRP) / Stainless Steel (SS) / Mild Steel Rubber, Epoxy Lining (MSRL/MSEL) and civil construction.

**Operation:** Semi - automatic / fully automatic plants

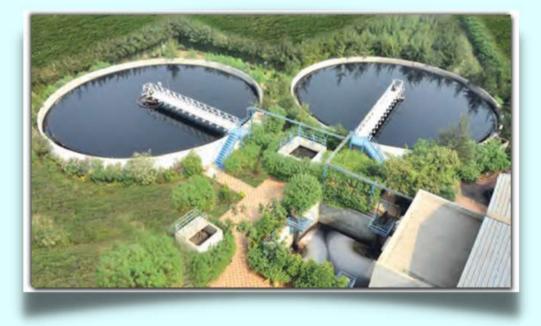
#### Types Of Plant Include:

- Chemical Precipitation
- Coagulation and Flocculation
- pH Correction
- Oxidation and Reduction
- Biological Treatment
- Dosing Systems

As well as also supplying new equipment, Paolo. can refurbish existing plant or supply refurbished plant.



### COMMON EFFLUENT TREATMENT PLANT (CETP)



#### Common Effluent Treatment Plant (CETP)

Urbanisation and need for better living has incessantly generated requirement of consumer goods and infrastructural inputs. With market potential and easy finance available, the mushrooming rise in the number of small scale industries can be seen in any Indian city. Besides being a resource for market economy and production of large number of consumer items, it is generally observed that, either due to their economies of scale coupled with their unplanned growth and dearth of affordable and cost- effective treatment technology, efforts by small scale units in achieving the environmental compliance have not been effective. Their large number and diverse trade has further aggravated the problem.

Under these constraints, setting-up of individual full-fledged treatment device is no longer feasible. Hence the desirable option is of the shared or combined treatment, wherein, managerial and operational aspects are collectively addressed and the cost of treatment, becomes affordable as enunciated in the scheme of the common effluent treatment plants, which are proving to be a boon especially for small entrepreneurs, given the methodical planning, regular operation and equitable contribution of member units. Such common facilities also facilitate proper management of effluent and compliance of the effluent quality standards.

#### Specifications

Flow Range: 2 KLD to 1 MLD

Materials: Fiber Reinforced Plastic (FRP) / Stainless Steel (SS) / Mild Steel Rubber, Epoxy Lining (MSRL/MSEL) and civil construction

Operation: Semi - automatic / fully automatic plants

### INDUSTRIAL EFFLUENT TREATMENT PLANT



#### Industrial Effluent Treatment Plant

Our organization acts as a manufacturer and supplier of Industrial Effluent Treatment Plants in order to cater the needs of diverse industrial areas such as textile, hospitals, automobile, electroplating and picking etc. The effluent treatment plants offered by us are well-equipped to perform high rate clarifier coagulation, precipitation and bio-media clarification.

#### Specifications

Flow Range: 2 KLD to 1 MLD

**Materials:** Fiber Reinforced Plastic (FRP) / Stainless Steel (SS) / Mild Steel Rubber, Epoxy Lining (MSRL/MSEL) and civil construction.

**Operation:** Semi - automatic / fully automatic plants

#### Features

- Reliable performance
- Durable finish standards
- Less maintenance



# WATER SOFTENER PLANT

### WATER SOFTENER PLANT



#### Water Softener Plant

Commercial and Industrial Water Softener is like a filter that removes calcium and magnesium from hard water. Paolo is the leading manufacturer and supplier of Industrial water softener based in Delhi NCR, India.

Paolo design its Industrial Water Softeners in such a way that it meets to your requirements. We analyze your requirement before designing and work closely with you to design the perfect water softener system to meet your expectations. There are many Industries in India and all Industries want the perfect Industrial Water Softener partner that figure out the daily demand on system which is calculated in gallons per minute (GPM), gallon per day (GPD) and water quality. It also tells about the vessel size, pipe size, and control valve sizes.

Our Industrial water softeners are of good quality and low maintenance required. We are providing manual, semiautomatic or fully automatic controls. To meet the needs of specific applications, our hard water softeners are available with wide range of configurations including piping quality, tank construction, single, double and triple unit arrangements etc.

#### Specifications

Flow Range: 500 LPH to 500 KLPH (500m3)

Materials: Fiber Reinforced Plastic (FRP) / Stainless Steel (SS) / Mild Steel Rubber, Epoxy Lining (MSRL/MSEL)

**Operation:** Semi - automatic / fully automatic plants, Dashboard, Reporting and Analytics (DAR) for managing multi plant operations using Mobile, Laptop, and Tablets.

#### Features Of Our Industrial/Commercial Water Softener

- Manufactured in FRP, SS and MS etc.
- Agitator also available and having capacity of up to 60000 LPH
- Maintenance service is provided on-site
- Resins of maximum all brands are available
- MS Vessel, FRP coating, rubber lining, black Japan paint, epoxy paint, enamel paint
- Specially designed for housing society, hospitals, schools, malls, institutes, industries, factories etc



# ULTRA FILTRATION SYSTEM



#### **Ultra Filtration System**

Paolo has a diverse range of premium quality of Water Treatment Plants. The raw materials used to manufacture these products are of best quality and meet highest quality standards. These can also be modified as per demand and recommendations of customers.

Filtration Plants are a part of water treatment Plant. Its basics are same as other water treatment plants and systems. Water Filtration plant is also known as Filtration plant. Like other water treatment products, filtration plants work on same theory to purify water. Water Treatment plant is used to remove dirt and hazardous chemicals and objects from water. For industries, it is imperative to install Media Filtration Plants in their units and processes.

#### Specifications

Flow Range: 250 LPH to 50000 LPH (50 m3)

**Materials:** Fiber Reinforced Plastic (FRP) / Stainless Steel (SS) / Mild Steel Rubber, Epoxy Lining (MSRL/MSEL)

Operation: Semi - automatic / fully automatic plants

#### Ultra Filtration Is Used In:

- Laboratory grade water purification.
- Wastewater treatment.
- Drinking water treatment.
- Paint Recovery in the automotive industry.
- Desalting and solvent-exchange of proteins.
- Dialysis and other blood treatments.



# DEMINERALIZATION WATER PLANT



#### **Demineralization Water Plant**

Hydroflux Engineering Pvt. Ltd. has a diverse range of premium quality of Water Treatment Plants. The raw materials used to manufacture these products are of best quality and meet highest quality standards. These can also be modified as per demand and recommendations of customers.

Filtration Plants are a part of water treatment Plant. Its basics are same as other water treatment plants and systems. Water Filtration plant is also known as Filtration plant. Like other water treatment products, filtration plants work on same theory to purify water. Water Treatment plant is used to remove dirt and hazardous chemicals and objects from water. For industries, it is imperative to install Media Filtration Plants in their units and processes.

#### Specifications

Flow Range: 100 LPH to 100 KLPH (100m3)

**Materials:** Fiber Reinforced Plastic (FRP) / Stainless Steel (SS) / Mild Steel Rubber, Epoxy Lining (MSRL/MSEL)

**Operation:** Semi - automatic / fully automatic plants, Dashboard, Reporting and Analytics (DAR) for managing multi plant operations using Mobile, Laptop, and Tablets.

#### Features

- Available in various shapes and sizes
- Economical
- High Efficiency
- High Quality Components
- Longer Life
- Low Maintenance

















A-41, Mangal Bazar Road, Village Begampur, Delhi
 - 110086 (INDIA)





### 🖂 info@paolo.co.in

