# RAKHOH INDUSTRIES PVT. LTD.





### **About Us**

Rakhoh Industries Pvt. Ltd. are a reputed manufacturer, exporter, and service provider of a wide variety of high-quality Water Treatment Plant and services such as mineral water turnkey projects, water treatment plants, industrial water purification machine and mineral water plants. We offer repair, maintenance and installation services for these water treatment equipment. We were a trusted company, established in 1983 and have emerged with our proficient team members who are continuously achieving maximum customer satisfaction. For providing a seamless experience to our customers, we have implemented standardized processes that ensure smooth scale production within the determined amount of time to ensure that our products are readily available as per customer's demand. We are operating under the leadership of Mr. Rustom Contractor, with vast industry experience in our domain. His vision helps us match the market trends that enable us to manufacture products as per dynamic market demands. Our products undergo multiple quality checks based on various parameters. Our quality products have led us to carve a niche in the competitive market. Our products are widely known and acknowledged for high-quality effluent, minimal maintenance, maximum efficiency, low operating costs, easy to install and operate.



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# **Our Product Range**

- Activated carbon filter
- Anion Resin
- ChlorinationandDe-chlorination
- Chlorine meter/ ORP meter
- Cation Resin
- Demineralisation Plant
- De-gasifying system
- Dosing system
- Flowmeter/indicator/gauge
- Ion exchange resin
- Instruments: Conductivity meter/controller
- Lab instruments/chemicals/etc.
- Micron filtration
- Mineral water plant
- Mix-bed deionizer
- Ozonation system
- PH meter/controller
- Pressure gauge/indicator/controller
- Reverse osmosis system
- Softening plant
- Swimming pool filtration system
- Supercharge Mix bed Resin
- Sand Media / Carbon Media / Alkalizer
- Sand filter
- Ultra-Filtration Plant
- U.V. Disinfection system
- Weak base Anion exchanger
- Weak base Anion Resin



# **Water Filtration System**

Rakhoh offers unique filtration systems to enhance the treated water quality by eliminating physical impurities, organic compounds, color, odor, iron, manganese, turbidity, etc. Filtration is the process to filter physical impurities, solid suspended particles using different methods like:

1) Multigrade Sand Filter

4) Bag Filter

2) Micron Cartridge Filter

5) Disc Filter

Activated Carbon Filter

6) Iron Removal Filter

### Salient Features include:

- 1) Air scouring available for High flow pressure vessel
- 2) FRP, MSFRP, MSRL, MSEP and SS Vessel available
- 3) High Filtration efficiency
- 4) Low pressure drop across the vessel
- 5) Manual, Semi Automaticand Automatic features are provided













Activated Carbon Filter

# **Softening Plant:**

Softening plant is designed to soften the water by removing the hardness from the water, eliminating calcium and magnesium by exchanging the ion in water through ion exchange resin i.e. Cation exchange. Softening plant is available in Manual as well as PLC based control system with Fully automatic option. It is available in FRP/MSRL models.







### **DM Plant**

Demineralization plant is based on cost effective ion technology with counter current regeneration. It is the process of eliminating minerals salts from water through an ion exchange process. DM Plants consist of highly efficient Cation and Anion exchangers along with a degasification system to remove minerals from the system. Rakhoh offers standard DM Plants with FRP / MSRL and SS construction.

#### Features:

- 1) Better efficiency and Low operating cost
- 2) Complete assembly with Backwash and Regeneration equipment
- 3) Easy to install and operate
- 4) Efficient design to suit varied requirements
- 5) Flexible Layout to suit site condition
- User friendly, Low maintenance
- 7) Simpler distribution and collection system
- 8) Wide range: 500 lph 100m3/hr and more





### **Ultra-Filtration Plant**

Ultrafiltration is one membrane filtration process acting as a barrier to separate harmful bacteria, viruses, and other contaminants from clean water. An ultrafiltration water system forces water through a .02 micron membrane. Too large suspended particles to pass through the membrane stick to the outer membrane surface and fresh water and dissolved minerals pass through. We manufacture Ultrafiltration Systems that are highly efficient in cleaning water impurities using the most modern technologies with the best components to fabricate these ultrafiltration systems. Our ultrafiltration systems can also be manufactured as per the client's requirements.

#### Features:

- 1) Compact Unit with robust mild steel structure
- 2) Fully assembled and tested before dispatch
- 3) Range of models with different capacities
- 4) Safety features to protect membranes from high pressure



#### Advantages:

- 1) Constant product quality regardless of feed quality
- 2) Compact plant size and Easy to start
- 3) Economical and efficient method of solid removal
- 4) Handle fluctuation of TDs removal

### Application:

- 1) Filtration of industrial water
- 2) High purity water for hospital for use in dialysis units
- 3) Pre-treatment to RO system/ Mineral Water Plant
- 4) Purification of surface and well water for potable applications
- Removal of virtually all particulate matter, suspended solids, bacteria, viruses and pathogenic species
- 6) Wastewater recycle and reuse



# **Reverse Osmosis (RO)**

Reverse Osmosis(RO) is a modern process technology that purifies water for a wide range of applications such as semiconductors, food processing, biotechnology, pharmaceuticals, power generation, seawater desalting, and municipal drinking water.

- Pressure Sand Filter: To remove suspended matter from the water.
- Activated Carbon Filter: To remove suspended matter from the water.
- Antiscalant Dosing: To prevent the desalting element from scale deposition.
- Micron Filtration: To remove the micron particles from the raw water.
- Osmotic pressure System (HP Pump): To create the osmotic pressure in raw water by using a pump.
- Desalination by R O Membrane Element: To desalt raw water i.e. to reduce TDS by using Semi permeable Membrane, where ion filtration process is carried out by applying pressure in water.
- O UV system: To kill the bacteria from fine water.



# **Industrial RO Plant**













### **Desalination**

As the name suggests, desalination desalts the water having dissolved salts as ions. For desalination, following treatment are available globally:

- 1) Demineralisation
- 2) Distillation
- 3) ReverseOsmosis
- 4) Solar Distillation
- 5) VacuumDistillation

### Solar Distillation

Water is desalted through solar energy. It requires huge space for desalting by evaporation with solar heat energy.

### Vacuum Distillation

Water is desalted through vacuum distillation. It is based on the principle that the water can evaporate at 65C temperature under vacuum.











# **Sea Water Desalination System**

Desalination of water involves a water treatment process by which sea or brackish water is converted into potable water for supplying communities that have the most difficulty accessing freshwater.

Seawater Desalination by Reverse Osmosis:

The reverse osmosis process includes applying pressure to a salt water solution and forcing it through a semipermeable membrane as the water passes through the membrane, from the side where the salt concentration is highest, toward the side where the salt concentration is lower. It leads to the concentrated solution part being minimized in favor of the freshwater. Our Sea Water Desalination system as well as Containerized Sea Water Desalination Plant use Reverse Osmosis System capable of producing up to 2000 m3/day with built in pre-treatment and membrane cleaning for removal of metals, minerals and chemical contaminants. Our system makes it easier to convert seawater to potable water with a high recovery rate





### **Product Features:**

- Available with Automatic fresh-water flush controlled by Multiway valve, avoiding frequent cleaning.
- 2) Available with basic, Semi-Automatic and Automatic controller options.
- 3) Compact structure, large volume production.
- Medium or large size equipment, optimizing configuration of energy recovery devices as per requirement.

### Containerized Sea Water Desalination System



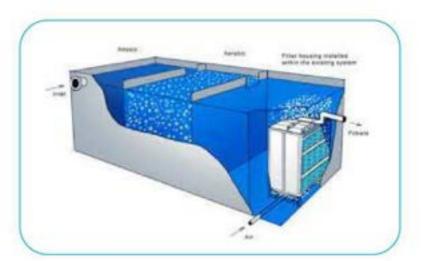
# MBR (Membrane Bioreactor)/SBR

Membrane bioreactors for wastewater treatment combine suspended growth biological treatment methods, usually activated sludge, with membrane filtration equipment, generally low pressure microfiltration (MF) or ultrafiltration (UF) membranes that are used to perform the critical solid-liquid separation function. In activated sludge facilities, it is accomplished using secondary and tertiary clarifiers along with tertiary filtration.

### **Benefits**

- 1) Compact
- 2) High volumetric load possible
- 3) High Rate Of Degradation
- 4) Possible To Convert from existing conventional activated sludge purification







## **U.V. Disinfection System**

U.V. or Ultraviolet for sterilization is used to create sterilization effect on the material with the fluorescent tube working as media to produce U.V. light. High intensive U.V. light and high reflectivity of the housing surface is very effective to inactivate the bacteria/virus/algae, etc.

#### **Benefits**

- 1) Inactivate the microorganism in seconds. No chemicals required.
- 2) No effect on properties of the material as well as material to be sterilized.
- No environmental effects.
- Water does not lose its test as well as chemical properties

### Application

- 1) Food and beverages.
- 2)Hotels, Hospitals, Dairy and Laboratories
- 3) Mineral water.
- 4) Sterilization of Soft drinks, Vegetables and fruits
- 5) Pharmaceuticals.







# **Ozonation System**

With its excellent disinfection and oxidation qualities, ozone is used on a large-scale for drinking water treatment. The treatment of water with ozone has an extensive range of applications, as it is efficient for disinfection as well as for the degradation of organic and inorganic pollutants. Rakhoh ensures the latest Ozone technology to generate high capacity ozone with minimum power consumption and minimum breakdown.

#### **Benefits**

- Best for drinking water
- 2) Easy operation.
- Effective than U.V.and Chlorine for sterilization.
- 4) No raw materials required for ozone generation, produced from natural air.
- Very negligible power required to operate it.
- Useful for air and water/liquid.
- Works as a good oxidizing agent.

### Application

- 1) Controlling of Micro-organism in water and surface
- Drinking water sterilization of bottled water.
- lon precipitation.
- Sterilization of air and water as oxidizing agents.
- Vegetables and fruit sterilization.





## **Sewage Treatment Plant**

Rakhoh's Sewage Treatment Plant is used for treating sewage generated by hotels, hospitals, industries, IT parks and commercial buildings, etc. We manufacture and ensure usage of quality materials in fabricating Sewage Treatment Plant as per industrial standards. The plant treats the sewage making it fit for safe disposal, agricultural use, or domestic use in toilets etc. It is easy to install and operate, requiring low maintenance cost. It helps provide a clean and healthy environment around them. Rakhoh Sewage Treatment Plant uses three treatment stages,

- 1) Primary Treatment to remove all large object and grit,
- Secondary Treatment removes suspended solid, collide particles and oil and grease particles with Aerobic and Anaerobic treatment,

 Tertiary Treatment involves processes like filtration, ion exchange, activated carbon adsorption, electrodialysis, nitrification, and denitrification.

### Application:

- 1) Institutions
- 2) Holiday camps
- 3) National parks
- 4) Restaurants
- Service stations





# Effluent Treatment Plant/ Wastewater Treatment Plant

A large quantity of industrial and commercial effluents leads to pollution in the environment. Our plants handle these effluents to make our environment safe and healthy. We offer Wastewater Treatment Plants such as Effluent Treatment Plant to remove the pollution effluent with economical operation and quality discharge. Rakhoh's Effluent Treatment Plant offers an extensive range of Effluent Treatment Plant in RCC constructed designs for commercial and residential building as well as MSFRP and Fibre constructed tanks for easy installation and commissioning.

#### Features:

- Available in skid mounted system
- High quality system components like Flocculator, Aeration system, Sludge drying bed.
- 3) Underground or Above Ground RCC (Civil) Tanks
- 4) Minimum Maintenance

### Application:

- 1) Dairy Industries
- 2) Dye and Pigment manufacturing industries
- 3) Food and Food Processing Industries
- 4) Fertilizer Manufacturing industries
- 5) Textile and Ceramic Industries
- Sugar and Distilleries





### **Mineral Water Turnkey Project**

To provide the best quality of water, we design & install a turnkey system of mineral water plants incorporating the equipment & components. We offer a single convenient source for all system accessories, including pre treatment, filtration, disinfection & packaging of water

### The Project Involves Machinery

- 1) Mineral Water Plant
- 2) Cup Filling Machine
- 3) Jar Washing/Filling Machine
- Automatic Rinsing, Filling & Capping Machine Label Shrink Machine
- 5) Semi/ Automatic PET Blow Molding Machine
- 6) Shrink Wrapping Machine

- 7) Automatic Bottle Rinsing, Filling & Capping Machine
- 8) Batch Coding Machine
- Automatic Pouch Packing Machine
- Water Chiller

### Mineral Water Plant Comprises of:

- 1) Raw Water Pump
- 2) High Pressure Pump
- 3) Chlorine Dosing System
- 4) Reverse Osmosis System
- 5) Multi Media Filtration
- 6) Stainless Steel Storage Tanks

- 7) Activated Carbon Filter
- 8) Micron Cartridge Filtration
- 9) Ultrafiltration
- 10) UV Sterilization
- 11) AntiScalant Dosing System
- Ozone Disinfection System

Filling Machine Output: 24-150 BPM (Automatic)



# **Complete Range Of Water Treatment Spares**



CENTRIFUGAL **PUMPS** 



VESSEL



VESSEL



MANUAL & AUTO MPV'S



PP FILTER **HOUSING &CTZ** 



SS FILTER HOUSING



PUMP



FRP PRESSURE TUBE



SS PRESSURE TUBE



MEMBRANE



DOSING PUMP



CONTROL PANEL



**TDS & CONDUCTIVITY** METER



ROTA METER



SS STORAGE TANK



**FLOAT SWITCH** 



PRESSURE GAUGE



HIGH & LOW PRESSURE SWITCH



**SWIMMING POOL FILTER**