Reverse Osmosis Plant Manufacturers and Suppliers

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Perfectly engineered yet simple Reverse Osmosis plants are ideal for a wide spectrum of applications. We ensure excellent performance, stringent designs, smooth operations and durability to our clients. Our RO plants are cost-effective because they need low maintenance. Less membrane fouling, long life of membrane and maximum recovery of permeate bring customer delight.

Our RO systems remove the dissolved contaminations up to the maximum possible extent. High-speed pressure pumps and best in the class semi-permeable membranes achieve great results.

What Makes Our RO Plants Special?

* Wide range of plants from .25KLPH to 50KLPH
* Well-organized design
* Complete monitoring and tracking system
* The maximum TDS removal
* Long life of membranes and reduced fouling of membrane
* Excellent water quality
* Smooth operations and low maintenance requirement
* Plug and play
* Cost effective and useful

Applications of RO-Treated Water

1.Inmanufacturingprocesses
2.Boilerfeeds
3.Topolishtreatedwater
4. Hospitals and labs

What is Reverse Osmosis?

Reverse Osmosis (commonly referred as RO) is the process of deionizing or demineralizing water by passing it through a semi-permeable membrane. Before understanding the effectiveness and need of Reverse Osmosis process, let’s understand the process of Osmosis first. When the weaker saline solution migrates to a strong saline solution, it is called Osmosis. It is a commonly occurring phenomenon in nature with a variety of uses and applications. Our kidneys absorb water from the blood or plant roots absorb water from the soil are some examples.

Reverse Osmosis is the process in a reverse manner. Whereas the Osmosis process occurs naturally without any need for energy, you need to apply energy to perform Reverse Osmosis. The membrane used in this case allows the water molecules to pass but stops the majority of the salts and impurities dissolved in the water. Typically, it stops organic material, salts, pyrogens, and bacteria. Since it is against natural process, you need to put a lot of energy for pushing the water through the RO membrane. It desalinates the water, lets the pure water pass through the membrane, and holds back the majority of contaminants.

Statistics says that up to 95 to 99 percent of dissolved salts get removed in the process. The more salt concentration is there in the input water stream; higher is the pressure required to pass it through the membrane.

What is the Role of RO Membrane?

When the water molecules pass through the membrane under very high pressure, they pass through it, and salts or contaminants hold back. They get discharged through the system by the reject stream. Rejected water may be drained out or sent to the feed water supply, depending on the design.

RO systems use Cross Filtration and not the standard filtration where the contaminants get accumulated in the filter media. In this case, the solution passes through the filter in two different ways. Contaminated water goes in one direction and the filtered water in other. Cross flow filtration cleans the contaminant build up so that the membrane surface remains clean.

Effectiveness of RO System

We being the reverse osmosis plant manufacturers and suppliers pride ourselves to be considered as one of the best in town.

* It can remove up to 99% organics, particles, ions, pyrogens, and bacteria. However, it doesn’t claim 100% removal of bacteria and viruses.
* Contaminants are rejected based on their molecular weight and size. Typically, particles of molecular weight more than 200 get rejected by a well-maintained RO system. To give an example
* It also identifies contaminants based on the ionic charge. Molecules with a high ionic charge will not pass through the membrane. Gases such as CO2 don’t have highly charged atoms, and their molecular weight is also low. Hence, they pass through the membrane. It is the reason; RO water has higher pH value.

Reverse Osmosis is a multipurpose, versatile method of purifying water. It can treat surface and ground water very effectively. It can treat brackish water also. RO is ideal for both large and small flow applications.

Industries such as boiler feed, pharmaceutical, semiconductor manufacturing, metal finishing food and beverage widely use RO water. They have requirement of huge RO treatment plants .Our experts work with the clients to understand their needs. We suggest the best solution.

A few parameters determine the efficiency and usability of RO systems. The quality of water, flow, and pressure are some important aspects. Also, hours of operations, the temperature of water, feed pressure, permeate pressure, and concentrate pressure are also important. Feed and permeate conductivity, feed and permeate flow, and salt rejection percentage are some other parameters.

Due to excellent performance and quality of the output water, good quality Reverse Osmosis Plants is in high demand. We have the complete range of choices to the customers spread across industries.

* [Specification](https://www.cleantechwater.co.in/reverse-osmosis-plant/#1484038701505-4c13938d-5c8c)
* [Application](https://www.cleantechwater.co.in/reverse-osmosis-plant/#1484038701530-ed217e49-85a1)
* [Download](https://www.cleantechwater.co.in/reverse-osmosis-plant/#1484039064257-47645314-a835)
* Plug and play type system.
* Plants range start from 0.25 KLPH to 50 KLPH.
* Material of Construction FRP/SS/MSRL.
* Equipped with all monitoring and controlling system.
* High end water quality on optimum recovery.
* High amount of TDS removal.
* Well design pre filtration ensure smooth operation.
* Long membrane life & less membrane fouling.

Frequently Asked Questions about Reverse Osmosis plant

How Does the RO Plant Work?

Our Reverse Osmosis plant works by deionizing and demineralizing water, passing it through the best-in-class semi-permeable membrane. The water passing through the membrane holds back several impurities and contaminants and helps various industries process cleaner and safer water.

Can Your RO Plant Treat Groundwater?

Yes, our reverse osmosis plant can treat the surface as well as groundwater to remove a majority of contaminants and impurities and flushes the rejected water away. Our RO plant can also treat brackish water or can be used to polish treated water. With powerful performance and reliability, our RO plants are the best in the industry for small as well as large operations.

Is Your RO Plant Easy to Install?

With a well-organized design and smooth operations, our RO plants come with a plug and play type of system. You can consult with our experts to install your plant in a hassle-free and easy way and ensure quality treatment of surface and groundwater.

Does the RO Plant Require Regular Maintenance?

No, our RO plant is perfectly engineered to last for a long period of time. With less membrane fouling, maximum recovery of permeate, and the long-lasting durability of our membrane filter, you can achieve the desired results without worrying about the maintenance of the plant. We have streamlined the design of the plant in such a way that it costs you less maintenance and provides you with excellent water quality.