Reverse Osmosis Plant

A reverse osmosis plant is a manufacturing plant where the process of reverse osmosis takes place. An average modern reverse osmosis plant needs six kilowatt-hours of electricity to desalinate one cubic meter of water. The process also results in an amount of salty briny waste. The challenge for these plants is to find ways to reduce energy consumption, use sustainable energy sources, and improves the process of desalination and to innovate in the area of waste management to deal with the waste.

We design and manufacture the Reverse Osmosis Plants according to the need for tap water, brackish water & sea water application. The production range starts from 100 LPH (Liter per hour) to 100 M3 per hour for 400 TDS to 45,000 TDS.

Produce high-quality demineralized water

Most modern membrane technology

Modular design

Low water-rejection rate

Low operational and maintenance costs

Reverse osmosis-manufactured plants are used to produce high-quality demineralized water, especially where the client looks to minimize the use of chemicals which are the regenerates associated with the more conventional demineralized ion exchange process.
**RO plant** is used extensively in the food and beverage industry (especially the brewing industry), pharmaceutical and the electronics industries. It uses a computerized programmed for studying the **water** chemistry so as to select the most suitable membrane configuration and in order to provide a plant which gives a low **water**-rejection rate.

Further help is provided to the client to make use of, often by further treatment, of the reject **water**.

Range of **R O units** utilizes the most modern membrane technology and consists of a modular design

In its simplest presentation **Reverse Osmosis** and ultra filtration system is a membrane process. That acts a molecular filters to remove (permeable to water not salt and separating pure **water** and salt solution, by applying external pressure) dissolved mineral, organic, inorganic and heavy metals. It will also remove microbial matter including bacterial spores and viruses, which cannot remove by any ion exchange technique from **water** and **wastewater**.

**Reverse osmosis** has emerged as a serious alternative to chemical treatment systems due to a number of reasons. The minimal use of chemicals makes it environmentally desirable. **Reverse osmosis** is a simple process and the operational and maintenance costs are lower. It has higher production capacity to space ratio via-a-via other technologies. **Ion exchange** processes, on other hand, incur high resin replacement costs, substantially higher regeneration costs and inordinate downtime costs due the need for replacing **ion exchange** columns. While the biggest operating costs for ion exchange systems are regeneration chemicals, the major cost component in RO is energy i.e. electrical power to operate the **RO** feed pump.

To assure the quality of Mineral **Water** (Purified Drinking Water), H2O designs and installs turnkey system of Mineral Water Plants incorporating the H2O equipments, parts & components. H2O offers a single convenient source for all system accessories, including pre treatment, filtration and disinfection of water.
Advanced RO Technology:

Reverse Osmosis Chemicals International is an innovative, industry leading Reverse Osmosis specialist. Our technologically advanced reverse osmosis chemicals, analysis equipment and membrane autopsy procedures have been developed to ensure that RO membranes; reverse osmosis and desalination plant installations operate at peak performance. We also offer specialist technical support services, which when combined with our advanced products help to enhance operational efficiency, optimize membrane life-expectancy and reduce total costs.

Our extensive range of high performance chemicals includes RO membrane anticipants and scale inhibitors, membrane preservatives, cleaners, biocides and disinfectants; flocculants, corrosion inhibitors, de-chlorinators; and manual and automatic Silt Density Index (SDI) kits. Our products are available globally and are used across most industrial, commercial, municipal, government and non-profit sectors.

For More details: www.shubhamindia.com