

## Reverse Osmosis (RO)

When two aqueous solutions of different concentrations are separated by a semi permeable membrane, naturally occuring osmotic pressure forces dilute solution into the concentrated solution. This natural phenomena is called Osmosis which continues until equilibrium between the two solutions is reached, the flow's natural direction can be reversed by applying pressure greater than the osmotic pressure to the concentrated solution. This process of reversal of solvent flow in known as "Reverse Osmosis (RO)





## Sand Filter / Carbon Filter

The surface water contains suspended particles, organic matters etc. To remove suspended particles, the deep bed Filters are used with two different frade of filter sand are used.

This helps the various sizes of suspended particles at various levels. Therefore the pressure drop across the filter bed is less compared to the standard conventional sand filters.

The dust holding capacity of the bed depth is more as the two different type of sand create more voids due to different sizes but fine size sand is held between the voids and give fine filtration.

#### **Water Softner**

Softener is used to water having high hardness. All water containing calcium and magnesium salts in considerable amount is called hard water. This hard water will deposit a hard scale in pipes, heating coils, boiler etc. resulting in waste of efficiency, fuel and money. The softening is done by ion exchange process; this process uses an ion exchange resin which replaces the calcium and magnesium ions in the waste by an equivalent no of sodium ions.





#### **UV System**

UV energy is found in the electromagnetic spectrum between visible light and X-rayed can be best described as invisible radiation. UV system consists of low pressure mercury discharge lamp which is made of special quartz glass envelope material and with filled with an inert gas, which delivers a constant high intercity light. High does of ultraviolet light energy at a wavelength of 254 nanometers

by affecting DNA in the cell, disabling their reproductive process. UV energy adds nothing to the water nor does it generated any by products. Water chemistry does not change.

### **DM Plant**

Deionizers are designed to produce high purity treated water required by pharmaceutical and electronic industries. A demineralizer removes total dissolved salts from the raw water by an ion exchange process; in this process the cations are exchange for hydrogen and anions for hydroxyl ions to give chemically pure water. Two bed deionizers give water conductivity less than 30 micro-Siemens and PH will be in the range of 7.5 - 9.5 and TDS less than 10 PPM



## **Mix Bed Plant**

Industries like Pharmaceuticals, Medium and High Pressure Boilers, Power generation by Steam, Turbines, Electronics industries are required extremely pure quality of water. The MIXED BED is the answer where the Two Bed DM plant is used prior to Mixed Bed. The mixed bed mixture of Cation and Anion resins form infinite numbers of demineralising stages through which DM water passing and thus removing the traces of minerals i.e. slippage (5ppm) from DM plant. By

this method demineralised water of extremely pure quality is achieved, which cannot be otherwide obtained by any commercial production methods.

The mixed resins are separated by means of backwash, as the anion resin's specific gravity is lower than Cation resin. The separated bed is then regenerated with Acid and alkali solution, which passed through the cation and Anion Bed, via specially designed distribution and collecting systems. After the regeneration with the help of compressed Air both Cation and Anion resins are re-mixed.

# **Swimming Pool Filter**

We offers complete Turnkey Swimming Pool Project as well as offers Pool Filters and accessories. Aqua Fresh Water Technology have developed standard compact filters for swimming pools. Advantage of these type of filter is, they can be repeatedly used after backwash. Turnkey project covers complete Designing, Civil Construction, Plumbing and Filtration Plant supply and Pool operation on completion and handover of the pool. Swimming pool equipments offer various products required for swimming pool along with filtration plant, list of items are as follows:

Pool Filters FRP / MS/SS, Re-Circulation Pumps, hair Catcher

unit Dosing systems, under water lights, overflow grating, pool cleaning brush, pool chemicals



# Mineral Water Project

Filters removal for Turbidity, Suspended, Colour, Odour, Organic Impurities Below Mentioned Treatment Scheme and Equipments based on the above source of water pretreatment include Chlorination, Raw Water Pump, Pressure Sand Filter (PSF), SMBS, Activated Carbon Filter (ACF) with



piping, Valves & Instruments in S.S. - 316. Reverse Osmosis System (R.O Plant): To Reduce the total Dissolved Solids (TDS) from Raw Water Source. Reverse Osmosis System Absolute Micron Cartridge Filter: After the Mineral Adding water will ass through the 1 & 0.2 Micron Absolute Micron cartridge filter which will take care for fine micron impurities. The Sanitary type housing and Filter will assure the high Quality treated Water before Ozonation. It will also take care for some part of bacteria and virus, Complete in S.S.-316 material with PP Pleated cartridge. Post Treatment: U.V. System, Ozonation & Oxygen: System supplied with ultra violet system. U.V. Treated water will pass through the Ozonation, Oxygen system which include S.S. - 316 re-circulation tank with pump Ozone gas will injectwith Ventury System mounted on Tank with Re-Circulation Tank and Pump. Continuous Re-circulation will proide the ozone and oxygen concentration to the Product water before Bottling

#### DOMESTIC PLANTS

MaterialCaused DiseaseRemoved %BacteriaBacterial Disease100%CalciumKidney Stone97%MagnesiumKidney Stone97%LeadMental Retardation97%CopperIndigestion97%NitrateDysentery80%PesticidesCancer97%FluorideFluoride90%SodiumHeart Disease92%			
Calcium Magnesium Lead Nitrate PesticidesKidney Stone Mental Retardation Dysentery Fluoride97% 97% 97% 80% 97% 97% 97% 97% 97% 97% 97% 99%	Material	Caused Disease	Removed %
	Calcium Magnesium Lead Copper Nitrate Pesticides Fluoride	Kidney Stone Kidney Stone Mental Retardation Indigestion Dysentery Cancer Fluoride	97% 97% 97% 97% 80% 97%

#### **Advantages:**

- NO MAINTENANCE
- TDS CONTROLLER
- REMOVE CHLORINE
- 99.99% REMOVE BACTERIA FREE

Aqua Grande RO



**Aqua Supreme RO** 



25 Lph RO



50 Lph RO

