

The Softening process DOES NOT reduce the TDS  
It only exchanges the “hardness causing TDS” to “Soft TDS”



SCALE FORMED IN TUBES



**Negative Effects of Hard Water**

- ✦ Hard Water wastes soap
- ✦ Hard Water dulls fabrics after washing
- ✦ Hard Water wears out fabrics and linens faster
- ✦ Hard Water deposits scales in heating coils, pipes, drains, back of toilets.
- ✦ Hard Water increases fuel costs due to scales

**Why does Boiler Feed Water need Softening?**

- ✦ Hard minerals like Calcium and Magnesium can cause scaling and ultimately damage boiler tubes.
- ✦ The scale deposits act like an insulator and prevent optimum heat transfer
- ✦ This reduces the boiler efficiency
- ✦ This can cause costly down times
- ✦ This can cause premature failure of Boilers.

**RECOMMENDED FEED WATER QUALITY**

Total Hardness as CaCO3 ppm	< 5 [ Commercial Zero ]
PH Value	8.5 - 9.5
Oil / Organic Matter	Not Detectable
Oxygen	0.05 mg / Litres

**RECOMMENDED BOILER WATER QUALITY**

Total Hardness as CaCO3 ppm	Not Detectable
Sodium Phosphate Na3PO4 mg/l	50 - 100
Caustic Alkalinity as CaCO3 mg / l	Min : 350
Silica as SiO2	< 0.4% of Caustic Alkalinity
Total Alkalinity as CaCO3 mg/l	Min : 1200
Sodium Sulphide as Na2SO3 mg/l or Hydrazine (N2H4) mg/l	30 - 70 0.1 - 1
Total Dissolved Solids mg/l	Max : 1200
Suspended Solids mg/l	Max : 50

FULL FLEDGED SALES AND SERVICE NETWORK  
**IN INDIA & ABROAD**

Erode - Madurai - Tirupur - Trichy - Bangalore - Cochin - Hyderabad - Mumbai  
New Delhi - Pune - Bhubaneswar - Burdwan - Kolkata - Raipur - Guwahati - Vizag  
Srilanka - Myanmar - Malaysia - Bangladesh - Thailand - UAE



# MAXSOFT

## WATER TREATMENT PLANT



### RO PLANT



**MAXTHERM (INDIA) PRIVATE LIMITED**

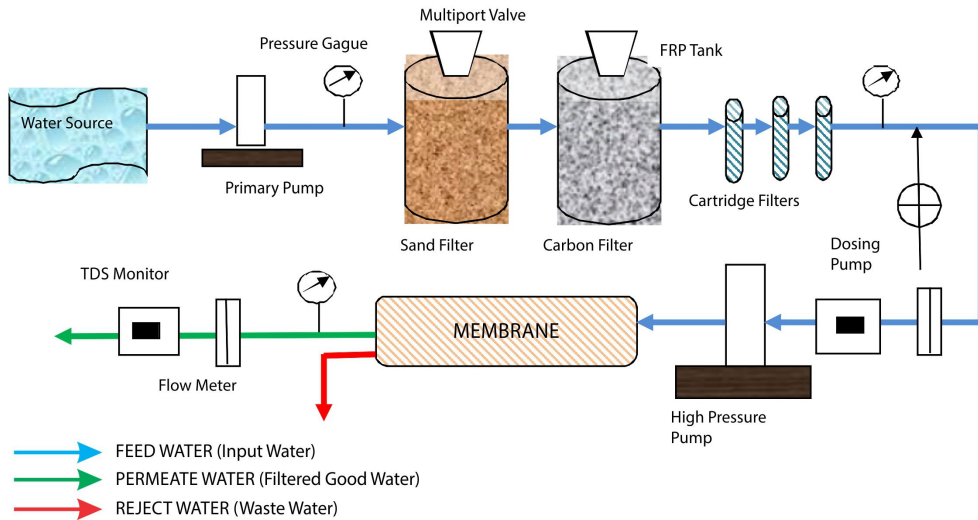
MAXTHERM HOUSE

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**PIONEERS IN ENERGY AND ENVIRONMENT**

## RO SKID ASSEMBLY



- Approximately 60% of feed water is converted to permeate
- Approximately 40% of feed water is reject
- This totally depends upon design and size of system

Riding on its vast experience in dealing with all major components of an RO system, MAXTHERM INDIA now offers RO Skids. All skids are designed technically for easy installation and maintenance. The skids are offered in MS Powder Coated and Stainless Steel material.

### TYPES

- Vertical Mounting (upto 1000 LPH - 4" Membrane Housing)
- Horizontal Mounting (upto 25,000 LPH)

### PANEL TYPES

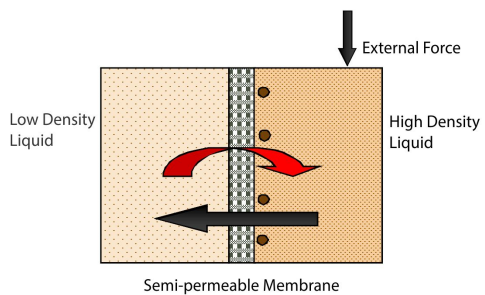
- Logic Controlled Automatic & Semi Automatic Electrical Panels
- PLC based automatic control panels
- Manual Control Panels

### SPECIFICATIONS:

The Skids are designed to accommodate the following components

- Cartridge Filter Housings with Cartridges
- Pressure Gauges
- Flow Meters
- Control Panels
- Pressure Switches
- High Pressure Pumps
- UV System
- Membrane Housing with Membranes
- Pipelines
- Control Indicators

## REVERSE OSMOSIS

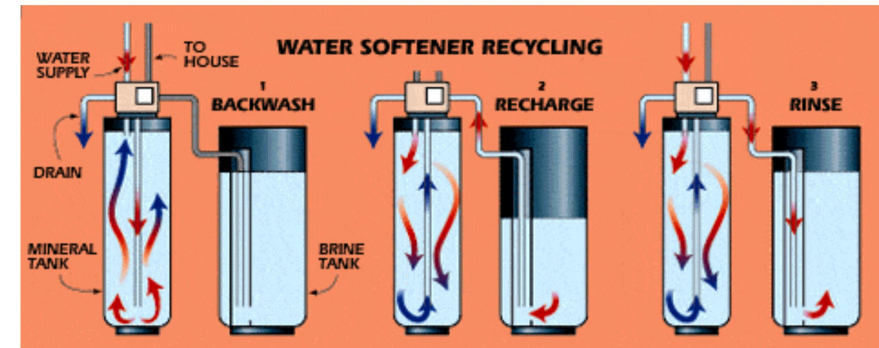


## SOFTENER PLANT



- ◆ Capacity 1000 LPH to 15000 LPH
- ◆ Resin Holding 30Ltrs to 1000 Ltrs
- ◆ Type-FRP with Multi Port Valve up to 5000 LPH
- ◆ MS Vessel with Diaphragm up to 15000 LPH

## SOFTENER SKID ASSEMBLY



**Water Softeners are popularly used to treat Hard Water.**

This device uses an "ion exchange resin" as the softening media, packed in vessels. The input water is made to pass through the resin using pipes and multiport valves. During the ion exchange process, the hard water ions (calcium, magnesium) get trapped on the resin and are exchanged for sodium ions resulting in Soft Water. The resin needs to be periodically re-charged using a brine solution.