



500 LPH RO PLANT
₹75,000.00

DESIGN BASIS

The chemical composition of raw water is considered as follows:

- T D S : 2500ppm
- PH : 7.5

Note: It is understood that there is no heavy metal or difficult elements, which is necessary to remove prior to feeding into R.O. System.

PRODUCT WATER QUALITY

- TDS : <100 ppm
- PH : 7.6

SCOPE OF SUPPLY FOR R.O. PLANT & FACILITIES:

S.NO.	PRODUCT	TECHNICAL SPECIFICATIONS
	Flow Rate	500 Liters per Hour
	Raw Water Feed Flow	1500 Liters per Hour
	Recovery	40-45%



1. RAW WATER PUMP

Flow Rate	: 1500 LPH
Power	: (0.5 HP)
Quantity	: 1 No
Flow Make	: CRI / LUBI



2. MULTI GRADE FILTER UNIT

Make and size	: Alfa/ Pentair (12/48)
MOC	: FRP
Quantity	: 1 No.

Purpose: To remove total suspended solids dirt, iron, Manganese and reduce Silt density index so as to prevent fouling of Membrane.

Equipped with 1 multi- port Valve, Media and respective Pipeline



3. ACTIVATED CARBON FILTER

Make and size	: Alfa/ Pentair (12/48)
MOC	: FRP
Quantity	: 1 No.

Equipped with 1" Multi port Valve, Media and respective Pipeline



4. ANTISCALANT DOSING PUMP

Pump Type	: Electronic Metering
Pump Flow	: Maximum 0-5 Liters / Hour
Maximum Pressure	: 5-6 Bar
Tank MOC	: HDPE
Tank Capacity	: 100 Ltrs
Power requirement	: 25 W

Purpose: To remove the effect of Calcium and Magnesium responsible for hardness in the water responsible to form scaling on the membrane and in pipelines.



5. MICRON FILTER

Housing:

Make	: Aqua fresh / Gentee, USA
MOC of Housing	: PP
Length X Diameter	: 20" X 4"
Quantity	: 2 No.

Cartridge:

Make	: multipro / reviva /Ametek USA
Cartridge MOC	: Poly propylene
Length	: 20"
Diameter	: 4"
Quantity	: 2 No.
Micron Rating	: 5 Micron

Purpose: After Antiscalant system water passes through micron filter having filter cartridge of 5 micron porosity so as to produce clear water suitable for Membrane feed.

6.



6. HIGH PRESSURE PUMP

MOC	: Stainless Steel
Size	: 2-11
Flow Rate	: 3500 Liters per Hour
Power Supply	: 2.0 KW, 440 V
Make	: LUBI / C.R.I
Quantity	: 1 No.

Purpose: To feed RO Membrane at pressure more than the osmotic pressure, considering flux rate, flow and recovery.



7. R.O. MEMBRANES

Type of Membrane	: HR (Poly Amide)
Diameter of Membrane	: 4.0 inch
Length of Membrane	: 40 inch
No. of Membrane	: 2
Make of Membrane	: Hydraulatics / LG / Dow / HII-FLOW (All USA)
System Recovery	: 50-60 %

Purpose: To remove most of the dissolved solids present in water and to reduce TDS (Total Dissolved Solids)



MEM-HOUSING

Specifications

MOC	: FRP
Diameter of Pressure Vessel	: 4 inch
Length of Pressure Vessel	: 40 inch
No. of Pressure Vessels	2
No. of Membrane per Vessel	2
Make	: Alfa / Pentair
Position	: Horizontal

Purpose: To pack membrane and operate at high pressure



8. ELECTRICAL PANEL

A control panel is provided as a safety measure for the pump & other electrical items.

Complete Starters, Overload Relays, Single Phase Preventor for Pump
 Voltmeter, Ammeter, MCB's, Indicating Lights
 Push Buttons
 Rocker switches for dosers
 Incomer, Auto-manual switches

9. INSTRUMENTATION

Rota meter	: To measure the online flow of water
Low Pressure Switch	: To Protect RO Pump from dry running
High Pressure Switch	: To protect RO pump from back pressure
Pressure Gauges	: For calculate ΔP for each unit in RO System

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Rotameter:

Quantity : 2 Nos (permeate & Reject Line)
Flow Rate : 1200 ltr/hr



Pressure Switch:

Quantity : 2 Nos (Low & High)
Range : 20 – 125 psi
Make : Orion / Eqv, India



. Pressure Gauges

Quantity : 5 Nos
Range : 0 – 7, 0 – 21 bar
Dial Size : 2.5 inch
Type : Line Mounted / Panel Mounted
Make : Dynamic / Gluck / Reputed, India

10. PLUMBING & FITTINGS

- * UPVC/CPVC for complete High Pressure piping. The job will include all necessary valves, NRVs, Fittings to ensure an optimum working of plant.
- * Frame for skid.

EXCLUSIONS:

- * Building Shed, Foundations, Flooring, Drains or any kind of Civil Construction.
- * Electrical Supply and Distribution System
- * Electrification, Illumination and Wiring
- * *Preliminary facilities as Storage Tanks, Feed Water Pumps, and associated piping*
- * **Any additional Storage Tank for Intermediate Step or Product Water**
- * Any raw material consumables, Anti-Scalant Chemical, micron filter etc. Except first lot for one month.
- * Any item not specifically mentioned in the offer
- * Transportation of Plant to your site
- * Packing and Forwarding
- * Taxes and Duties
- * RO Membranes are not covered in warranty.
- * Installation 5,000/- extra
- *

PAYMENT:- 80% Advance and 20% after installation.

DELIVERY: 1-2 days after confirmation of purchase order along with advance.

Regards- AQUADEEPWATER
SOLUTION

RAHUL DEV- 8130315248

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