

# AQUADEEP



**3000 LPH RO PLANT**

**₹280,000.00**

## **DESIGN BASIS:**

The chemical composition of raw water is considered as follows:

TDS : 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:**

<b>S.NO.</b>	<b>PRODUCT</b>	<b>TECHNICAL SPECIFICATIONS</b>
	Flow Rate	3000 Liters per Hour
	Raw Water Feed Flow	6000 Liters per Hour
	Recovery	40-50%



### 1. RAW WATER PUMP

Flow rate	: 6000 LPH
Head	: 35 m
Power	: (2 HP)
Quantity	: 1 No
Flow Make	: CRI / LUBI



### 2. MULTI GRADE FILTER UNIT

Make and size	: Alfa/ Pentair ( 18/65)
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 ( 18/65)
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	: Amete / Gentee, USA
MOC of Housing	: PP
Length X Diameter	: 20" X 4"
Quantity	: 4 No.

##### Cartridge:

Make	: Filterite / Pratham /Ametek USA
Cartridge MOC	: Polypropylene
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.*

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### 6. HIGH PRESSURE PUMP

MOC	: Stainless Steel
Size	: 4-22
Flow Rate	: 3500 Liters per Hour
Head	: 125 M
Power Supply	: 5.0 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	: 8.0 inch
Length of Membrane	: 40 inch
No. of Membrane	3
Make of Membrane	: Hydraunatics / 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)*



## 8. MEM-HOUSING

### Specifications

MOC	: FRP
Diameter of Pressure Vessel	: 80 inch
Length of Pressure Vessel	: 120 inch
No. of Pressure Vessels	1
No. of Membrane per Vessel	3
Make	: Aventura / Pentair/etc.
Position	: Horizontal

*Purpose: To pack membrane and operate at high pressure*



## 9. 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

## 10. INSTRUMENTATION

Rotameter	: 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  $\Delta P$  for each unit in RO System

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**Rotameter:**

Quantity

: 2 Nos (permeate & Reject Line)

Flow Rate

: 5000 ltr/hr



**Pressure Switch:**

Quantity

: 2 Nos (Low & High)

Range

: 20 – 125 psi

Make

: Orion / Eqv, India



**. Pressure Gauges**

Quantity

: 4s Nos

Range

: 0 – 7, 0 – 21 bar

Dial Size

: 2.5 inch

Type

: Line Mounted / Panel Mounted

Make

: Dynamic / Gluck / Reputed, India

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## **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- AQUADEEP WATER SOLUTIONS**

**RAHUL DEV- 8130315248**

A-126 SHOP NO- 5 DHYAN SINGH MARKET  
NOIDA SECTOR -22, NEAR NOIDA STADIUM