



## **QUOTATION**

Date: 22.03.2024

To :  
Mr, DIWAKAR GUPTA

**Subject: Quotation for 1000 LPH FRP RO Plant SEMI - AUTOMATIC**

Dear Sir,

This refers to your requirement of RO plant; we have quoted you for 1000 LPH complete scheme of RO System. Please find our Best Competitive Offer for you.

Our Best Techno-Commercial Offer is constructed as follows:

Process of the system & Design basis.

Scope of Supply with Technical Specification & Scope of exclusion. Price with Commercial terms & Conditions.

Kindly call us at your convenience for any further clarifications and information.

Thanking you and assuring you of our best services at all times.

With Best Regards,  
Arunkumar  
9620101383

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We are thankful for your valuable order. According to your requirement we are hereby enclosing the quotation for 1000 LPH FRP Fully Automatic Reverse Osmosis System. Please find the details in the attachment.

**RO Plant Manufactures** is the leading manufacturers in Bangalore. We have 15 years' experience in the field of manufacturing. We have more than 1750 satisfied customers in all over India, and also providing services in Andhra Pradesh and Karnataka.

**RO Plant Manufactures** always try to serve u the latest technology in lowest prices. Most of the material of the plant is been manufactured by **RO Plant Manufactures**. We hold the monopoly for certain products in the market. We have expertise who have done years of R&D on the technology and serve the best to our esteem customers. We have a group of professional technical expertise who install, handle and service the machinery very well with advanced technology at your doorstep efficiently. Prior motto of our **RO Plant Manufactures** is 100% after sales service were other companies are lacking behind.

Our clientele includes Bisleri, Royal challenge, Bhasyam public school, lion's club international, Sri Chaitanya techno schools, Iskcon temples etc; we are also having dealerships with reputed and well-known companies

Other than taking AMC we also supply the chemicals that help you to maintain the machinery and the water quality. We assure you the best and prompt services; we look forward for your positive reply.

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Manikchand  
**Oxyrich**



**Bisleri**



**ROYAL  
CHALLENGE**



**SHANGRI-LA**  
HOTELS *and* RESORTS

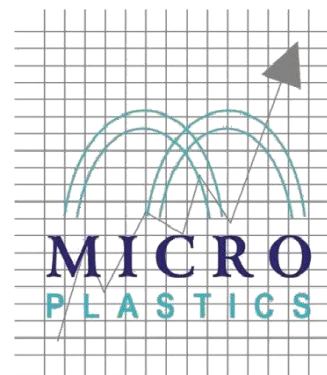
**HERITAGE**  
HOTELS & RESORTS, INC



**NTR MEMORIAL TRUST**  
Joy of Sharing



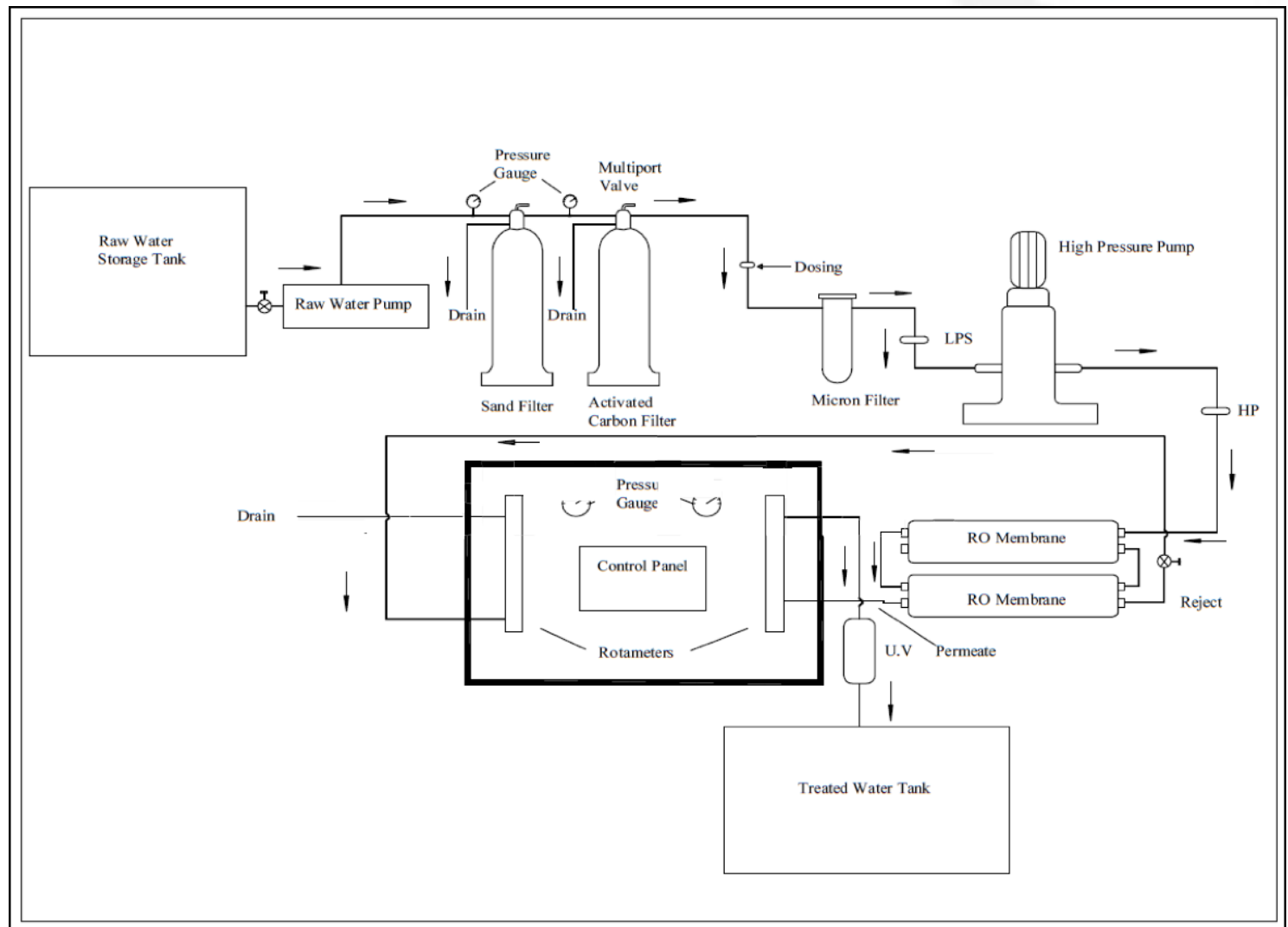
**TATA PROJECTS**



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## PROCESS DESCRIPTION

Water is passed through following different stages for process of filtration & separation in RO water plant process.



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## **REVERSE OSMOSIS (RO) PROCESS**

Reverse Osmosis is a technology that is used to remove a large majority of contaminants from water by pushing the water under pressure through a semi-permeable membrane.

A reverse osmosis membrane is a semi-permeable membrane that allows the passage of water molecules but not the majority of dissolved salts, organics and bacteria.

### **Pressure Sand filter :**

To remove suspended matter from the water by means of Multi size Graded sand filled in the vessel of stainless steel material. This is natural process of filtration.

### **Activated Carbon filter :**

To remove Color, Odor and Smell from water by using Granular Activated carbon. It absorbs contaminated particles of Oil & Grease from the raw water.

### **Antiscalant Dosing :**

To prevent the desalting element from scale deposition.

### **Micron Filtration :**

To remove the micron particles from the raw water by means of using disposable cartridges having Perfect micron size of porosity for filtration.

### **Desalination by RO Membrane Element :**

To desalt the raw water i.e. to reduce the total dissolves solids.

By using Semi Permeable Membrane filter elements, where filtration process is carried out by applying pressure in the water. So finally we will get Low salt water with low total dissolve solids and High purity.

### **Ultra-Violet Disinfection System :**

UV light is electromagnetic radiation with wavelengths shorter than visible light, UV is mutagenic to bacteria, viruses and other microorganisms, UV breaks molecular bonds within micro-organismal DNA.

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## DESIGN BASIS

The following are technical specification for equipment supply for RO water project.

The Water Treatment Project is designed to produce 1000 LPH

On the basis of following considered/approximate raw water quality.

### Source Of Water

<b><i>Suspended Solids</i></b>	<i>Nil</i>
<b><i>TDS</i></b>	<i>Less than 800 ppm</i>
<b><i>Turbidity</i></b>	<i>Less Than 4.0. NTU</i>
<b><i>pH</i></b>	<i>8</i>

### Treated Water Quality

The approximate treated water quality is as follows however it depends on row water quality considered for design of system. we can change the property of minerals/ions in Treated water by reducing and editing the mixing water quality in R.O. treated water.

<b><i>Suspended Solids</i></b>	<i>Nil</i>
<b><i>Turbidity</i></b>	<i>Nil</i>
<b><i>pH</i></b>	<i>5.50 to 8.0</i>
<b><i>Total Dissolved Solids</i></b>	<i>Less than 50 ppm</i>
<b><i>Total Hardness</i></b>	<i>Less than 20 ppm as CaCo<sub>3</sub></i>
<b><i>Iron as Fe</i></b>	<i>Nil</i>
<b><i>Organic Material</i></b>	<i>Nil</i>
<b><i>Fluoride</i></b>	<i>less than 0.01 ppm</i>
<b><i>Sodium</i></b>	<i>Less than 05 ppm</i>

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## SCOPE OF SUPPLY

<i>Raw Water Feeding Pump</i>	<i>1 No.</i>
<i>Pressure Sand Filter</i>	<i>1 No.</i>
<i>Activated Carbon Filter</i>	<i>1 No.</i>
<i>Antiscalant Dosing System</i>	<i>1 Set</i>
<i>Micron cartridge filter ( 5/20" microns )</i>	<i>2 Nos.</i>
<i>High Pressure Pump</i>	<i>1 No.</i>
<i>Reverse Osmosis Element (4040)</i>	<i>1 No.</i>
<i>Pressure Vessel for element</i>	<i>1 No</i>
<i>Instruments</i>	<i>1 set</i>
<ul style="list-style-type: none"><li>• <i>Pressure Gauges</i></li><li>• <i>Rotameters</i></li><li>• <i>Level Sensors</i></li><li>• <i>Auto Membrane Flushing System</i></li><li>• <i>Fully Automatic control panel</i></li></ul>	<i>4 Nos.</i> <i>2 Nos.</i> <i>2 Nos.</i> <i>1 No.</i> <i>1 No.</i>

## AUTOMATIONS

<i>High-low voltage cutoff</i>
<i>High Ampere cutoff</i>
<i>Automatic Membrane flushing (start, stop, intermediate function)</i>
<i>Raw Water Tank Sensor</i>
<i>Treated Water Tank Sensor</i>
<i>Plant Error Reporting on Panel</i>
<i>Treated Water Quality Protection</i>

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## TECHNICAL SPECIFICATIONS

### ➤ RAW Water Pump :

<i>Max. Flow</i>	<i>4 m<sup>3</sup>/hr.</i>
<i>Working flow</i>	<i>2 m<sup>3</sup> /hr.</i>
<i>Working pressure</i>	<i>2 kg/cm<sup>2</sup>.</i>
<i>Max. Pressure</i>	<i>3.0 Kg/Cm<sup>2</sup>.</i>
<i>M.O.C.</i>	<i>C.I.</i>
<i>Power</i>	<i>1 HP.</i>
<i>Make</i>	<i>CRI</i>
<i>Nos. Offered</i>	<i>One No.</i>






### ➤ Multi-Graded Sand Filter :

<i>M.O.C.</i>	<i>FRP</i>
<i>Pipe Line Size</i>	<i>25 mm OD</i>
<i>Sand Qty.</i>	<i>150 Kg.</i>
<i>Valves</i>	<i>RunXin Imported MPV</i>
<i>Max. Flow</i>	<i>5.00 m<sup>3</sup>/hr.</i>
<i>Working Flow</i>	<i>3.0 m<sup>3</sup>/hr.</i>
<i>Make</i>	<i>StarLite / hippo / TATA</i>
<i>Nos. Offered</i>	<i>One No.</i>






➤ Granular Activated Carbon Filter :

M.O.C.	FRP	  
Pipe Line Size	25 mm OD	
Sand & Carbon Qty.	50 Kgs	
Valves	RunXin Imported MPV	
Max. Flow	5.00 m <sup>3</sup> /hr.	
Working Flow	3.0 m <sup>3</sup> /hr.	
Make	StarLite / hippo / TATA	
Nos. Offered	One No.	

➤ Antiscalant Dosing System :


Nos. offered	1 No.	
Dosing chemicals	Anti Scalant	
Rate of Dosing	1 ppm.	
Daily Consumption	3 to 5 gms/hr.	
Type of Dosing Pump	Electronic diaphragm Pump.	
Maximum Dosing Capacity	6 lph.	
Make	E Dose/Verito / CDOSE	

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### Micron Cartridge Filter :

Size	4.5" Dia. & 20" Long.	
Micron Rating	5 Micron.	
Type of Filter	P.P. Spun Jumbo	
Material of Housing	FRP	
Max. Flow	4 m <sup>3</sup> /hr.	
Working Flow	3.0 m <sup>3</sup> /hr.	
Make	FRP	
Nos. offered	2 Nos.	


### High Pressure Pump :

Type	Centrifugal-Multistage	
M.O.C.	S.S. 304	
Max. Pressure	11 Kgs/cm <sup>2</sup> .	
Working Pressure	9 Kgs/cm <sup>2</sup> .	
Max. Flow	3 m <sup>3</sup> /hr.	
Working Flow	2.5 m <sup>3</sup> /hr.	
Motor	2 HP, Single phase	
Make	CRI	
Nos. offered	1 No.	


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➤ Reverse Osmosis Membrane Elements :


<i>Model</i>	<i>4040 brackish water.</i>	
<i>Type</i>	<i>Spiral Wound</i>	
<i>Material</i>	<i>Polyamide</i>	
<i>Size</i>	<i>4" Dia. x 40" Long</i>	
<i>Make</i>	<i>Duken / hydroxy/ hitech</i>	
<i>Nos. Offered</i>	<i>04 No.</i>	

➤ Pressure Vessels :


<i>M.O.C.</i>	<i>FRP</i>	
<i>Type</i>	<i>Horizontal Tube Type</i>	
<i>Capacity</i>	<i>1000 litres</i>	
<i>Max. Pressure</i>	<i>300 psi.</i>	
<i>Working Pressure</i>	<i>150 psi.</i>	
<i>Size</i>	<i>4" Dia X 80" Long</i>	
<i>Make</i>	<i>RO Deals</i>	
<i>Nos. Offered</i>	<i>2</i>	



➤ Fully Automatic Control Panel:


<p>➤ To control all the Pumps &amp; Electrical units within the RO System.</p> <p>➤ Panel helps us protect machine from electrical failures and it offers high level automation to increase the life of machine.</p> <p>➤ Displays whole process with a mimic diagram to help understand the process easily.</p> <p>➤ Displays all functions on the LCD display.</p>		
Make	Accord	
Nos. Offered	1	

➤ Pressure Gauges :


Type	Bottom And Back Mounted	
Make	Standard	
Range	0 - 21, 0 - 7 kg/cm <sup>2</sup>	
MOC	SS 304	
Nos. Offered	2	




➤ Rotameters :

Type	Float type	
Mounting	Panel Mounted	
Make	Aster/ Flux	
Nos. Offered	2	

➤ Level Controller :


Type	Electronic sensor	
Make	Standard	
Nos. Offered	2	

➤ SS Tank :


Type	SS Tank	
Make	Standard	
Nos. Offered	1 Nos. (2000 Liters)	




□ Card + Coin Box :-

Type	Card + Coin Box	
Make	Initiative	
Nos. Offered	1 Nos.	

➤ 0.5 HP SS PUMP :-

Type	0.5 HP SS Pump	
Make	CRI	
Nos. Offered	1 Nos.	

➤ Sv 3/4 :-

Type	Sv 3/4	
Make	Ro Deals	



# COMMERCIAL QUOTE

The Complete Offer for Supply, Erection & Commissioning of Machine

RO PLANT 1000 LPH SEMI - AUTOMATIC WITH 2000 LTRS SS TANK		
Material Description	Make	Quantity
RAW WATER PUMP 1 HP	CRI	1
HIGH PRESSURE PUMP 2-15 MTC SINGLE PHASE	CRI	1
0.5 HP SS PUMP	LEO /BGZ	1
PRESSURE VESSELS 13*54 FRP	STAR LITE/HIPPO/ TATA	2
SAND 50 KGS	SAND	2
CARBON 25 KGS	CARBON	2
MULTIPORT VALVE 25 NB TMF MANUAL	INNITIATIVE	2
JUMBO HOUSING FRP	FRP	2
JUMBO FILTER	THREADED FILTER	2
MH HOUSING 40*80 FRP	LOTUS/HIPPO/UKL	2
MEMBRANE 40*40	DUKEN / HITECH/HYDROXY/OTHERS	4
FLOW METER 2400 LPH	UKL/RAPID	2
CONTROL PANEL	ACCORD / INITIATIVE	1
DOSING PUMP	INNITIATIVE / VERITO /CDOSE	1
PRESSURE GAUGES SS 304	RAPID	2
PRESSURE GAUGES CONECTOR	RAPID	1
DOSING CHEMICAL	GOOD CHEMISTRY /SCALEFREE	1
NUT & BOLTS	NUTS	1
2000 LTRS SS Tank	Neer / LOTUS	1
SV 3/4	SS / BRASS / FRP	1
FLOOT SWITCH	LOTUS	2
55LTRS DRUM FRP	FRP	1
SS SKID 32 MM	STAINLESS STEEL	1
2000 LTRS FRP TANK	FRP	1
CARD + COIN BOX	ACCORD / INITIATIVE	1
CPVC FITTINGS FOR PLANT	FRP	1
Total		2,35,000/-

<b>Terms</b>	
<b>1. GST 18% Included</b>	
<b>2. Installation &amp; Service Charge Included</b>	
<b>3. Pipeline charges for site Extra</b>	
<b>4. Transportation Included</b>	
<b>5. Payment against Performa Invoice</b>	
<b>6. The validity for this Quotation is 07 days from the date of issue,</b>	

## TERMS AND CONDITIONS OF SUPPLY

<b>Price</b>	<i>The above Quoted price</i>
<b>Transportation</b>	<i>Included</i>
<b>Installation</b>	<i>Included</i>
<b>Pipeline charges</b>	<i>Included</i>
<b>Training</b>	<i>Will be provided</i>
<b>Taxes</b>	<i>GST@ 18% extra as applicable on basic price.</i>
<b>Delivery</b>	<i>1-2 weeks after confirmed order along with advance.</i>
<b>Payment</b>	<i>50% advance &amp; 50% on delivery.</i>
<b>Price Validity</b>	<i>15 Days</i>

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