

***NAMRATA TECHNICALS SERVICES***  
***MOB 9763291000, 8888668490***

**Kind Attn :**

**Sub. :** Offer for Water Treatment System. (Cap: 500Lit per Hr RO System.)

Dear Sir,

This is with reference with the telephonic discussion had with you regarding the aforesaid subject matter.

We are very much thankful to you for showing your keen interest in our water treatment range of products & furnishing us an opportunity. This will be a small but significant step in establishing the long lasting & mutually beneficial relationship between "NAMRATA TECHNICALS SERVICES "YOUR SELF"

As per your requirement, we are very much pleased to submit our Techno – Commercial proposal for Water Treatment System incorporating latest **REVERSE OSMOSIS Water Treatment System (500L.P.H.)**.

Meanwhile, if you require any further information, please feel free to contact us for the same.

**And 2 ton water chiller on line unit @ Rs.  
1,30,000.00**

With regards,

**NAMRATA TECHNICALS SERVICES**  
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# **NAMRATA TECHNICALS SERVICES**

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### **ANNEXURE – I**

#### **BASIS OF DESIGN AND TREATMENT SCHEME**

##### **1.1 PLANT INTRODUCTION:**

- ✓ The proposed Water Treatment Plant is designed to produce product water at the flow rate of 250 L.P.H. based on latest Reverse Osmosis and ion Exchange Technology.

**Note:** The proposed Water treatment system based on R.O. Technology can even Work continuo sally for 5 - 8 hours per day.

##### **1.2 RAW WATER ANALYSIS:**

We have designed the proposed Water Treatment System based on below mentioned Raw Water Analysis provided by you..

<b>Sr. No.</b>	<b>Parameter</b>	<b>Value</b>
1.	Source Of Water	Bore Water
2.	Total Dissolve Solids	1500Mg/Liter

##### **1.3 END WATER QUALITY: -**

TDS : < 150 PPM

##### **1.4 RO PLANT OPERATING CONDITION:**

<b>Sr. No.</b>	<b>Parameter</b>	<b>Value</b>
1.	Feed Flow Rate	1400 LPH
2.	Product Flow Rate	500LPH
3.	Reject Flow Rate	300 LPH
4.	Operating Pressure	8 – 11 kg/cm2

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### **1.5 TREATMENT SCHEME:**

<b>Sr. No.</b>	<b>Description</b>
<b>PRE-TREATMENT:</b>	
1.	<b>RAW WATER STORAGE TANK (BY CLIENT)</b>
2.	RAW WATER PUMP
3.	MULTI GRADE FILTER
4.	SPECIAL ANTI-SCALENT DOSING SYSTEM
5.	MICRON CARTRIDGE FILTER (5.0 MICRON)
<b>R.O.MODULE</b>	
6.	HIGH PRESSURE PUMP
7.	R.O. MODULE
8.	<b>to e WATER STORAGE TANK (BY CLIENT)</b>

### **1.5 R.O. FEED LIMITING CONDITIONS:**

1]	T.D.S.	.....	1400P.P.M. (Max.)
2]	Suspended Solids	.....	Nil
3]	Heavy Metals	.....	Nil
4]	Oil and Grease	.....	Nil
5]	Turbidity	.....	Nil
6]	Residual Chlorine	.....	Nil
7]	Color / Odor	.....	Absent
8]	PH	.....	7.3

### **The END WATER quality shall be achieved subject to:**

- 1] Feed quality is same as specified in your enquiry. In case of any change in the quality of raw water, the same may have an implication on the Operating parameters and End-water quality of the system.
- 2] Feed limiting condition mentioned in our offer is strictly maintained.
- 3] Operation of Water treatment plant is strictly followed in totality as per our operating manual & instructions.

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### ANNEXURE – II

#### TECHNICAL SPECIFICATION

#### 1] RAW WATER TANK ( BY CLIENT)

<b>2] RAW WATER PUMP</b>	
Quantity	One No.
Capacity	1400L.P.H.
Discharge Pressure	3.5 kg/cm1.
MOC	CI
Make	Any good mfg.

<b>3] MULTI GRADE FILTER</b>	
Quantity	One No.
Type	Vertical Pressure Vessel 10*54
Operating capacity	1400L.P.H
M.O.C.	<b>FRP- Structural With Manual Multi port valve</b>
Filter Media	Quartz Sand with Pebbles & Gravels.
Service Cycle	Whenever pressure drop across unit exceeds 0.8 kg/cm <sup>2</sup> .
Backwash Duration	15 - 20 mins.
Operating Pressure	3.5 kg/cm <sup>2</sup>

<b>4] SPECIAL ANTISCALANT DOSING SYSTEM</b>	
Quantity offered	One No. of Dosing Pump
Type	Electronic Diaphragm type Dosing Pump
Flow rate	0 – 5 L.P.H.
Operating Pressure	1.5 kg/cm2
Make	Painter water / <b>any good brand</b>

<b>5] MICRON CARTRIDGE FILTER</b>	
Quantity	Two No. 20"
Type	Replaceable Cartridge
M.O.C. of Cartridge	<b>Polypropylene</b>
M.O.C. of Housing	Polycarbonate
Operating capacity	800LPH
Micron Size	<b>5.0 micron</b>

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Operating Pressure	2.50 kg/cm2.
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<b>6] HIGH PRESSURE PUMP</b>	
Quantity	One No.
Type	Vertical –
Capacity	700 L.P.H
Discharge Pressure	12 – 14 kg/cm2
Type of Drive	III phase squirrel cage induction motor./ single phase
Make	Nangfang PUMPS / CRI any other good brand

<b>7] R.O. MODULE</b>	
Item	R.O. Module with FRP pressure tubes & R.O.
Type of Membrane	Thin Film Composite Polyamide Spirally Wounded
Operating Pressure	12 – 14 kg/cm2
Make of membranes	<b>M/s. Hydronotics / USA make</b>
No. of Membranes	<b>1 Nos.</b>
M.O.C. of Pressure Housings	FRP
Make of Pressure Housing	Painter water
No. of Pressure Housings	1 Nos.

**8] RO WATER STORAGE TANK ( BY CLIENT)**

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**A N N E X U R E – III**

**SCOPE OF SUPPLY FOR RO SYSTEM**

<b>Sr. No.</b>	<b>Item/ Component</b>	<b>Qty.</b>
<b>PRETREATMENT</b>		
1.	<b>Raw Water Storage Tank</b>	<b>By Client</b>
2.	Raw water pump	One No.
3.	Multi Grade Filter consists of - FRP Pressure vessel with 0.5” multi-port valve. - Initial charge of media. - <b>Frontal PVC pipe work with necessary fittings.</b>	One No.
4.	Special Anti –Scalent Dosing System - Dosing Tank along with Dosing Pump	One No.
5.	Micron Cartridge Filter (5.0 micron) in Blending Line incorporating - Micron Cartridge Filter - Micron Cartridge Housing	TWO No.
6.	High Pressure Pump with Motor	One No.
<b>RO MODULE</b>		
7.	R.O. Module incorporating R.O. Membrane: M/s <b>good usa brand</b> - R.O. Pressure Tubes [M.O.C. :FRP] - R.O. Skid with Electrical Control panel Based Control panel along with Instruments.	One Lot.
8.	<i>RO Water Storage Tank</i>	By Client
<b>INSTRUMENTATION</b>		
1.	Flow Indicator	Two Nos.
2.	Low pressure Switch	One No.
3.	Pressure Gauges	One Lot.

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4.	Reverse Osmosis Control Panel	One No.



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### **ANNEXURE -IV**

#### **SCHEDULE OF EXCLUSIONS AND TERMINATIONS**

##### **CLIENT TO PROVIDE**

##### **SCHEDULE OF EXCLUSIONS :**

- 1] All civil works such as plant foundation of the equipments, mass concreting, etc.
- 2] Supply of power to Motors, regeneration chemical for trial run and commissioning.
- 3] Laboratory testing facility, Instruments and reagents.
- 4] Lubricants, Oil and Grease as and when required.
- 5] Raw water storage tank, Product water storage tank and transfer pump.
- 6] All equipments, works and services, not specifically mentioned in our proposal.
- 7] Storage & site security.

##### **TERMINATION POINTS :**

- 1] Inlet of Raw water Pump
- 2] Permeate /Reject Outlet of Reverse Osmosis system
- 3] Inlet/ Outlet of Sterilization System
- 3] Overflow and drain pipe work of all vessels
- 4] Power control termination at High pressure pump, RO. Product / Raw water transfer Pump

##### **CLIENT TO PROVIDE :**

- 1] Control supply : 220 Volts  $\pm$  10, Single phase, 50 Hz. for all Instrumentations.
- 2] Power supply : 415 Volts  $\pm$  10, three phases, 50 Hz. for High pressure Pump & other pumps...
- 3] Service water : Flow Rate @ 700 L.P.H. at the inlet of RWP (Raw Water Pump)
- 4] Lab testing facility: for Analysis of water
- 5] Labor : As and when required.
- 6] Chemicals : Special Anti-scalent

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**ANNEXURE - V**

**PRICE, COMMERCIAL TERMS & CONDITIONS**

**PRICE :**

Our price for Design, Engineering and Supply of Proposed Water Treatment System, based on R.O. System, as described in our earlier Annexure shall be:

<b>Sr.</b>	<b>DESCRIPTION</b>	<b>QTY.</b>	<b>AMOUNT</b>
1.	Reverse Osmosis based Water Treatment System (Cap –500 LPH) vertical pump	1 No.	Rs. 1,95,,000 .00
2	2 ton on line chiller	1 no	Rs. 1,30,000.00

Our price is Ex-works (Factory) and Exclusive of  
- Transportation up to your site.

**EXCISE DUTY** : Extra at actual, if applicable. At present Nil.

**SALES TAX** : Extra at actual. At present 12.5 % .vat.

**OCTROI AND INSURANCE** : Extra at actual, if applicable.

**However, any change in Govt. levies / interpretation /etc. at the time of Execution will be on Buyer's account.**

**PAYMENT TERMS** : 70% Advance along with Detailed Purchase Order.

**DELIVERY** : Ro AND WATER CHILLER within 4 days time .

With Regards,  
NAMRATA TECHNICALS SERVICES  
SATISH JADHAV  
Mob: 9763291000