

Date: 09-05-2022

Ref No: NLWS/05/21

To,  
Apegaon Agro Processor Farmers Producer Co.LTD,  
Gut No; 151/1, Naygaon Road,  
Wadwali, Tal; Paithan, Dis; Aurangabad,  
Mob no; 9421940891/9405055713

**SUBJECT: Quotation**

1. Reverse Osmosis Plant Capacity 2000 LPH PLANT,
2. 5000 Liter 2 FRP Tank
3. Installation
4. 1 Year Warranty

Dear Sir,

We thank you very much for kind curtsey extended to the undersigned against your enquiry for the R.O water treatment plant at your site, we take pleasure to submit our offer for the same.

Sir After Discussion with u at we Find your water quality is very bad having lot of Dirt and soil so I am Sending you quotation of RO plant Which will be make 100% potential For Drinking , As we design Ro Plant it will be proper for your Company water Parameter

We may introduce ourselves, as **NL WATER SERVICES** incorporated total water treatment solution. Started with objective of providing with advance technology extending Sales & Service support in the field of water filtration, purification & recycling plants.

The **NL WATER SERVICES** is one of the pioneer industries active in the field of Total Water Quality Management. The company has installed more than R.O systems 3500 Industrial plants for jar Plant, bungalows, industries, hotels, hospitals schools, colleges and offices.

As per your requirement, we are very much pleased to submit our Techno – Commercial Proposal for Water Treatment System incorporating latest **2000 LPH RO Plant**

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

Thanks & Regards,

**NL WATER SERVICES,**  
ISO Certified  
AURANGABAD,  
09923020421.

**With reference to your discussion regarding 2000 LPH Ro Plant Project requirement we are pleased to quote our most competitive rates for the same.**

**Scope of Supply:**

Raw Water Feeding Pump CRI/ Kiloskar 1.5 HP	1 No
Pressure Sand Filter 16"x65" (190 Liters)	1 No
Activated Carbon Filter 16"x65" (190 Liters)	1 No
Bag Cartridge filter 20" (20 & 05 Micron)	1 No
Cartridge filter 20" (20 & 05 Micron )	2 No
Antiscalant Dosing System	1 Set
High Pressure Pump Kiloskar Model 04/12	1 No
RO Membrane 8040	2 No
Pressure Vessel Tube 8040 , 1x2 Elements	1 No
Complete Instruments Set	1 Set
RO SKID Stainless Steel	1 Set

**SCHEDULE OF EXCLUSIONS: -**

- All civil work like foundation of equipment, drain trenches, shed, supporting structure.
- All interconnecting piping beyond our termination points.
- Electrical cable to our control panel.
- Unloading of machine, site storage and security of equipment.
- Illumination / ventilation of plant area.
- Any other item, which is not specifically mentioned in our scope of supply

## INTRODUCTION OF PLANT:

### JAR PLANT OF DESIGN AND TREATMENT SCHEME

The proposed Water Treatment scheme is designed to produce product water at the flow rate of 2000 LPH based on Reverse Osmosis Technology.

Note: The proposed water treatment system can even work continuously for 18-22 Hrs per day leaving aside 0.5 - 1 Hrs for the recommended Backwashing of the Filtration system.

### RAW WATER ANALYSIS (ASSUMPTED):

We have designed the proposed Water Treatment System based on following Water Analysis,

Sr. No.	Parameter	Analysis Value.
1	Total Dissolved Solids	1500 PPM (Max.)
2	Turbidity	<1 NTU
3	SDI	<4
4	Heavy metals	NIL
5	Organics And Bacteria	NIL
6	Oil And Grease	NIL
7	Residual Chlorine	NIL
8	Temperature ( °C )	< 40.
9	Color	Color Less
10	Odor	Odor Less
11	BOD & COD	NIL

### END WATER QUALITY:

TDS	< 100 ppm.
pH	6.5 +/- 02
Turbidity	Nil.
Color	Nil.

### RO PLANT OPERATING CONDITION

Sr. No.	Parameter	Value
1.	Feed Flow Rate	4,000 LPH
2.	Product Flow Rate	2,000 LPH
3.	Reject Flow Rate	2,000 LPH
4.	Operating Pressure	10 - 12 Kg/cm <sup>2</sup>
5.	Recovery	50%

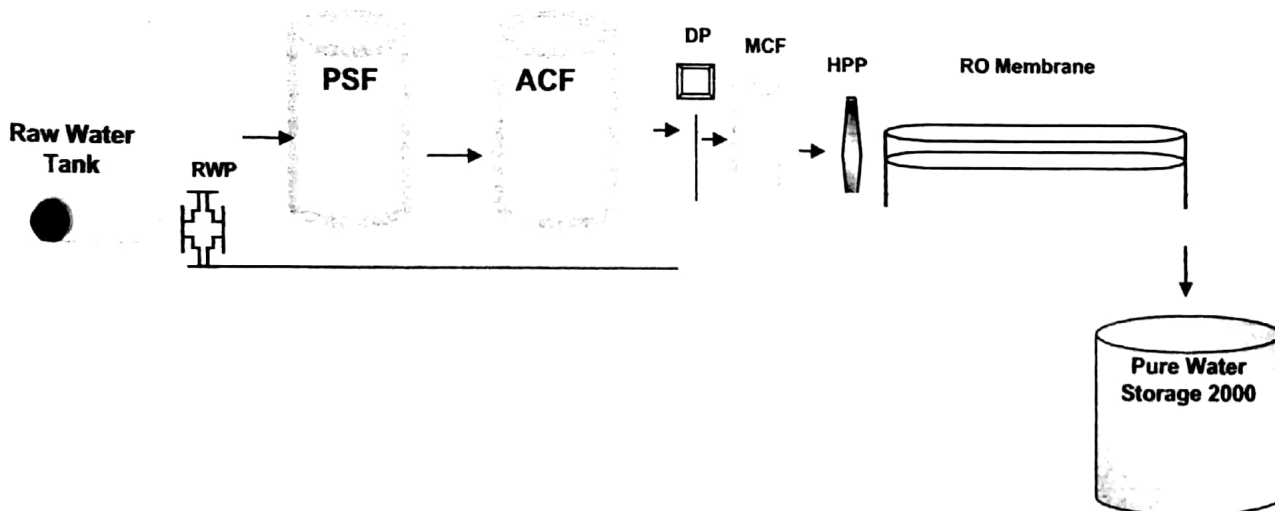
## TREATMENT SCHEME

Sr. No.	Description
<b>PRE-TREATMENT:</b>	
1.	RAW WATER STORAGE TANK ( C.S)
2.	RAW WATER PUMP
3.	PRESSURE SAND FILTER
4.	ACTIVATED CARBON FILTER
5.	ANTI-SCALENT DOSING SYSTEM
6.	MICRON CARTRIDGE FILTER (5.0 MICRON)
<b>R.O.MODULE</b>	
7.	HIGH PRESSURE PUMP
8.	R.O. MEMBRANE HOUSING & MEMBRANE
9.	RO AND CHILLER WATER STORAGE TANK
10.	RAW WATER SESTING DOSING SYSTEM

● 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.

### FILTRATION PROCESS:



**TECHNICAL SPECIFICATION: 2000 LPH RO Plant.**

<b>Raw Water Pump</b>		
1	Qty.	1 Nos.
2	Capacity	5 M3 / Hr.
3	Type	Self Priming Centrifugal
4	MOC	CI
5	Make	CRI , Kiloskar
6	Power Consumption	1.5 Hp.
<b>Pressure Sand Filter</b>		
1	Type	Vertical
2	Dia	16 Inch
3	Height	65 Inch.
4	Volume	190 Liters
5	Media	Silica Quartz Sand, Pebbles, Gravels
6	Quantity	150 Kg
7	MOC	FRP
<b>Pressure Carbon Filter</b>		
1	Type	Vertical
2	Dia	16 Inch
3	Height	65Inch.
4	Volume	190 Liters
5	Media	Activated Carbon Media
6	Quantity	150 Kgs
7	MOC	FRP
<b>Anti Scalant Dosing System</b>		
1	Pump	1 Set
2	Make	Aroma.
3	Quantity	1
4	Type	Electronic Diaphragm type
5	Capacity	0 to 6 LPH
6	Quantity of Tank	1 Nos.
7	Capacity Of Tank	50 Ltrs.
8	MOC of tank	HDPE.
<b>Cartridge Filter</b>		
1	Quantity	One Set (Consists Three Cartridge)
2	Type	Replaceable Cartridge
3	Size Of Cartridge	20" Jumbo Spun
4	M.O.C. of Cartridge	Polypropylene

5	M.O.C. of Housing	FRP
6	Operating capacity	2,000 LPH
7	Micron Size	5.0 Micron
<b>High Pressure Pump</b>		
1	Type	Vertical centrifugal multi stage.
2	No.	01
3	Make	Kiloskar
4	Power Consumption	4 Hp.
5	Capacity	5 M <sup>3</sup> /hr or as required
6	Pressure	10-14 Kg./CM <sup>2</sup>
7	MOC	Stainless Steel
<b>High Pressure Membrane Tube</b>		
1	Item	RO module consisting of membrane Housing with RO membrane mounted on skid.
2	MOC	DAX
3	Size	80" X 80" [1 No's.]
<b>RO Membrane</b>		
1	Type	Thin Film Composite Polyamide Spirally Wounded
2	Size	8" x 40"
3	Qty.	02 Nos.
4	Make	Hydranautics, DuPontFilmTech (Dow) ,Suze

### INSTRUMENTATION:

<b>A</b>	<b>Instrument</b>	
	Quantity	: One Nos.
	Indication	: 4 Digit 1 Line LED
	Conductivity Meter	: 0-200 $\mu$ S/Cm
	Maximum Temperature	: 40 Degree Centigrade
	Location	: RO Permeate.
<b>B</b>	<b>Flow Indicators</b>	
	Quantity	: 2 Nos.
	Type	: Float Type Panel Mounted.
	Maximum Op. Temp.	: 40 Degree Centigrade.
	Measuring Points	: 1)RO Module Product Flow 2)RO Module Reject Flow
<b>C</b>	<b>Pressure Gauges</b>	
	Quantity	: 2 Nos.

	Range	:	0-20 Kg / Cm2.
	Location	:	1) RO HPP. 2) RO Raw Water Flow.
<b>D</b>	<b>High Pressure Switch And Low Pressure Switch</b>		
	Quantity	:	1+1 Nos.
	Location	:	Before & After High Pressure Pump.
<b>E</b>	<b>Pressure Control Valve</b>		
	Location		Reject Water Line
	Nos.		1 Nos.
	Make		Spring System USA.
<b>F</b>	<b>Auto Flushing Switch with solenoid Valve.</b>		
<b>G</b>	<b>Electronic Control Panel With required instrument.</b>		

### PRICE, TERMS & CONDITONS

Our lump sum price for Design Engineering, supply, Erecting and commissioning of

1. **2000 LPH RO PLANT ALL SETUP will be Rs.6, 40,274/-**  
Including 18% GST

**Commercial Details**

Item	Qty	Rate
2000 LPH RO Plant	1 no	460200
5000 Liter FRP Tank	2 no	60031
Transportation	1 no	12100
Pipe Fitting	1 no	10274
<b>Total Cost</b>		<b>542605</b>
<b>18% GST No;27AOFPR5458C1ZS</b>		<b>97669</b>
<b>Final Cost</b>		<b>640274</b>

**Company's Bank Details;**

**COMPANY NAME; - N L WATER SERVICES**

**BANK NO; - IDBI BANK**

**A/C NO; - 0480102000008327**

**BRANCH; - SAMARTH NAGAR AURANGABAD**

**TERMS OF PAYMENT:**

100% Advance payment .

**DELIVERY PERIOD:** The delivery period for Machine will be 15 Days.

Thanks & Regards,

**NL Water Services**  
**ISO Certified**

Aurangabad  
09923020421