



Running Contract Details	
Equipment Name	RO Plant 3000 Litre
Running Contract Valid Till	18-01-2026
Tender Ref No	KMSCL/EP/T517(R)/284B/2023
Tendered Quantity	10
Supplier Name	M/s Meditech Corporations
GST No	32AWKPP1213A1Z9
Installation & Delivery Period	8 Week(s)
Up-time / PM vist	95% & 4 Visits per year
Warranty period	3 Years

Supplier`s Details		
Address	Contact Details	
DOOR NO.72/26-B2 NADEPALLY COMPLEX ELAMAKKARA PO-682026	Contact Person	Abdul Rahim
	Phone	
	Mobile No	7356829721
	Email	enquiry@meditechcorp.com

Item-wise Price Details				
#	Item Details	Unit Rate (Incl.all taxes & charges)	Service Charges (Through KMSCL)	Grand Total
1	<b>RO Plant 3000 Litre</b> <i>Model &amp; Make : 3000LPH DIAPURE/ MEDITECH CORPORATIONS</i>	1032500 Incl.GST :18%	72275	1104775
		<b>1032500</b>	<b>72275</b>	<b>1104775</b>

Annual / Comprehensive Maintenance Charges (Exl.Tax)							
Rate	4 <sup>th</sup> Year	5 <sup>th</sup> Year	6 <sup>th</sup> Year	7 <sup>th</sup> Year	8 <sup>th</sup> Year	9 <sup>th</sup> Year	10 <sup>th</sup> Year
<b>RO Plant 3000 Litre</b>							
Labour	18,000.00	19,000.00	20,000.00	22,000.00	23,000.00	25,000.00	30,000.00
Comprehensive	1,50,000.00	1,55,000.00	1,60,000.00	1,70,000.00	1,75,000.00	1,85,000.00	2,00,000.00

**Other terms & conditions**

1. The supplier shall execute an agreement with the purchaser as per tender conditions (agreement format is given in the tender

document).

2. The supplier shall submit performance security amounting to 5.00% of the value of the supply order.
3. The labour & comprehensive charges of equipment after the completion of warranty period is finalized by KMSCL as mentioned above.
4. Since discount rate is not applicable for equipment under Running Contract of KMSCL, purchase/supply order can be issued directly to supplier at the given rate with tax & other charges (exclusive of KMSCL service charges).
5. If purchase/supply order is issued directly to the supplier, KMSCL service charge need not be paid. But the copy of the said order may be forwarded to KMSCL for information.

### **Technical Specification**

#### **Equipment :RO Plant 3000 Litre**

#### **Equipment:RO Plant 3000 LPH**

#### **Design Philosophy**

The raw bore well water will be fed to the dual media filter (DMF) for the removal of turbidity. Before feeding to the DMF, liquid chlorine will be dosed to reduce the biological load. Before micro filtration the water will be treated with SMBS, NaOH, and antiscalant to remove excess chlorine, to increase the pH and to prevent scaling in the downstream RO membranes. This chemically treated filtered water will be fed to the Micron filter followed by **Single pass RO plants** for the removal of total dissolved at the required level. The RO treated water will be treated with ozone in the final permeate water storage tank for killing the micro -organism. Ozonator should be of 2 gm capacity. Then water will be provided with UV sterilization for complete disinfection and residual ozone breaking. The double sterilized water is suitable for particular usage. Chlorine dosing system and de-chlorine dosing system is required. RO circulation pump of 1 hp SS pump of make CRI/Lubi.

#### **Design Raw Water Analysis:**

<b>Parameters</b>	<b>Values</b>
pH	Specify
Turbidity	< 5.0 NTU
Total Dissolved Solids	Specify
Iron as Fe	Specify
Silica as SiO <sub>2</sub>	Specify
Total Hardness as CaCO <sub>3</sub>	Specify
Na as Na	Specify
Alkalinity to Methyl Orange as CaCO <sub>3</sub>	Specify
Calcium as Ca	Specify
Magnesium as Mg	Specify
Sulphate as SO <sub>4</sub>	Specify
Chlorides as Cl	Specify
Fluoride as F	Specify

#### **Treated Water Quality at the outlet of second stage**

**RO: Conductivity < 20 ppm.**

#### **NOTE:**

The treated water quality is subject to the following conditions:

The raw water quality being not worse than the quality indicated in the offer and should be free from iron.

The plant is being operated and maintained strictly in accordance with our operational procedures

**FILTER FEED PUMP**

1	No. off	2
2	Capacity	10.0 m <sup>3</sup> /hr at 30 MWC
3	Motor rating (HP)	3.0
4	Material of construction	Cast Iron

**DUAL MEDIA FILTER**

1	No off	2
2	Diameter	21"
3	Height on straight	62"
4	Normal flow rate	10.00 m <sup>3</sup> /hr
5	MOC	FRP
6	Filter media	Green sand, Ordinary sand, Activated Carbon iv 900

**ANTISCALANT DOSING SYSTEM**

1	No off	1
2	Capacity of the tank	100L
3	MOC of the tank	HDPE
4	No. of dosing pump	1
5	Hold up period	24 hrs
6	Dosing pump capacity	1-4 LPH
7	Type of dosing pump	Electronic Diaphragm with manual
8	Material of construction of pump	PP
9	Inter connecting piping/ valves	PVC/ PP
10	Make of pump	Asia – LMI / UKL

**RO UNIT – stage -1**

1	Normal permeate flow	3000 LPH
2	No of elements/ Model	3/ BW-80-40
3	Type of membranes	TFC/GE
4	%Permeate recovery	60%
5	Salt rejection, element	99%
6	No of pressure tubes	1
7	MOC of pressure tubes	FRP
8	No of High Pressure pumps	1
9	Capacity	10.0 m <sup>3</sup> /hr at 12.5 Kg/cm <sup>2</sup>
10	Motor rating HP	7.5
11	Make	Grundfos/ CRI
12	No of Micron Filters	2
13	Capacity	2.0 m <sup>3</sup> /hr
14	Size of cartridge	20" X 4" dia
15	MOC of the housing	PP
16	Porosity of the cartridge	5-micron cartridge

**UV STERLIZER**

1	No off	1
2	Capacity	5000 LPH
3	No. of Quartz tubes & Lamps	1
4	Power	36 Watts X 2 Nos
5	Distribution Pumps	Two 1.5 HP SS head

**LIST OF INSTRUMENTS**

Flow meter- 2 Nos

Conductivity indicator-1 No

Control Panel -1

Hand held TDS Meter

**IX.**Water softner should be available in the pre filter system.

**X. OTHERS**

Raw water tank-4000L(White color tank)

Pre treated water -3000L (White color tank)

ROWater tank Stainless steel SS 304 - 2000 L

**XI.**Should be provided with UF filter.

**XII.** Should be provided with Pyrogen filter.

**XIII.** Sand filter, activated carbon filter and water softener should have Backwash : Automatic, Multiport valve : Timer based with 3 cycle backwash sequence, Pressure gauge and fittings. The flow rate shall be suitable for 3000LPH RO output.

All wetted parts should be INERT, SS or compatible to Haemodialysis procedure.

The raw water pump, softened water booster pump and RO distribution pump should be of suitable capacity and should have standby of equal capacity (1+1).

Control enclosures should be NEMA 1 & Motor starters should be NEMA 4 X

The outlet of the RO system must conform to AAMI standards both in terms of chemical contamination and bacterial contamination. The endotoxin limit for the RO water is 1 Eu/ml and the limit of bacterial growth shall be not more than 200 CFU/ml. Copy of Certificate / test report should be produced along with the technical bid

Should supply Test kit for Checking hardness of water / portable TDS Meter.

Replacement of all necessary filters including 1 micron & 5 micron, Replacement of Sand / Pebbles / Carbon, UV Lamps, Antiscalent chemical, and Acetic acid cleaning whenever requires should be done free of cost during the warranty period and also in the CMC period.

RO Membrane shall be replaced at free of cost during the warranty period whenever required. The replacement charge for RO Membrane replacement during CMC period shall be included in the CAMC rates

**Note:**

If CDSCO (Central Drugs Standard Control Organization) certification is required for the import and marketing of the equipment, then the same shall be submitted along with the technical bid

Warranty exclusions if any shall be discussed at the time of prebid meeting else the tender condition as per clause 6.31.20 shall prevail