



Running Contract Details	
Equipment Name	2000 LPM Oxygen Generator System - 1000 LPM
Running Contract Valid Till	14-06-2023
Tender Ref No	KMSCL/EP/T407/1374F/2020
Tendered Quantity	10
Supplier Name	M/s Med Freshe Pvt. Ltd.
GST No	07AAACN0168K2ZG
Installation & Delivery Period	
Up-time / PM vist	95% & 4 Visits per year
Warranty period	3 Years

Supplier`s Details		
Address	Contact Details	
Narulas Tower II Building No 2 Third Floor Central Market Punjabi Bagh West New Delhi - 110026	Contact Person	Harshil Narula
	Phone	011 4545999
	Mobile No	9873003060
	Email	healthcare@medfreshe.com

Item-wise Price Details				
#	Item Details	Unit Rate (Incl.all taxes & charges)	Service Charges (Through KMSCL)	Grand Total
1	<b>2000 LPM Oxygen Generator System - 1000 LPM</b> <i>Model &amp; Make : Oxyfresh-1000 OEM M/s Sumer International</i>	22960000 Incl.GST :12%	1693300	24653300
2	<b>2000 LPM Oxygen Generator System - Lumpsum turnkey rate for civil works</b>	336000 Incl.GST :12%	24780	360780
3	<b>2000 LPM Oxygen Generator System- Lumpsum turnkey rate for Electrical works</b>	336000 Incl.GST :12%	24780	360780
4	<b>Supply, laying and clamping of PVC insulated and PVC sheathed armoured copper/AL power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages , colour washing etc. as required. 4 Core Cable suitable for the Machine(Incoming Supply from Hospital Panel)</b>	1680 Incl.GST :12%	123.9	1803.9

Item-wise Price Details							
5	"Supply & laying of one number PVC insulated and PVC sheathed armoured copper power/AL cable of 1.1KV grade of the following sizes in ground including excavation of trench of size 35 x 75 cm, refilling the trench etc. as required including sand cushioning and protective covering (in ordinary soil). 4 Core Copper/AL Cable suitable for the Machine(Incoming Supply from Hospital Panel)"			2240 Incl.GST :12%	165.2	2405.2	
6	Oxygen cylinder filling unit with all accessories (Not Taken for Evaluation)			11760000 Incl.GST :12%	867300	12627300	
				<b>35395920</b>	<b>2610449.1</b>	<b>38006369.1</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>2000 LPM Oxygen Generator System - 1000 LPM</b>							
Labour	40,000.00	44,000.00	48,400.00	53,240.00	58,564.00	64,420.00	70,862.00
Comprehensive	70,000.00	77,000.00	84,700.00	93,170.00	1,02,487.00	1,12,736.00	1,24,009.00

### 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% 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 :2000 LPM Oxygen Generator System - 1000 LPM

#### OXYGEN GENERATOR SYSTEM 2000 LPM ON TURNKEY BASIS

The 2000LPM shall be supplied as two 1000LPM plants. The output of both lines shall be together connected to the hospital main pipeline system

1. Purity : Ranging between 90-96%
2. Flow : MIN 1000LPM – 2nos
3. Minimum outlet pressure at all time : 61 PSI or 4.2 Bar
4. Air tank : 2 nos suitable for the Flow rate
5. Oxygen tank : 2 nos suitable for the

Flow rate mentioned

6. PPM Levels of other gases :

- a) CO<sub>2</sub> - <300 ppm
- b) CO - < 5 ppm
- c) Nox - <2 ppm
- d) SO<sub>2</sub> - < 1 ppm
- e) H<sub>2</sub>O - <67 ppm
- f) Oil - < 0.01 mg/m<sup>3</sup>

7. Size of each compressor suitable for the flow rates mentioned, compressed air flow >160 m<sup>3</sup>/hr

8. Modular rotary screw compressor (Two in number) with refrigeration dryer and air receiver. Compressor and dryer – two in number each. The compressor and

dryer have to be operated alternatively in order to provide 24x7 oxygen supply.

9. 1 monitoring system CPU controller with digital screen.

10. 1 air inlet filter.

11. 1 oxygen outlet filter

12. In-built electrochemical oxygen analyzer.

13. Should provide suitable capacity UPS for oxygen generator with minimum 30 minutes.

14. Should provide automatic serve stabilizer for all the other components of the Oxygen Generator.

15. Bacterial filter, Line filters should be provided.

16. The class of air has a low dew point of 35 degrees Fahrenheit

17. 99% of water particles need to be removed through eco drain mechanism or equivalent technology

18. Fully automatic change over system should be provided for pressure, purity, and power failure. The audiovisual alarm shall be provided for an empty alternate oxygen source connected for automatic change over.

19. The replacement of Zeolites should be included in the warranty as well as the CAMC period.

20. The generator room will have been provided with an Oxygen outlet. The connection from the machine to the generator should be done by the bidder.

21. The bidder shall provide the ducting for the compressor.

22. The bidder should give a certificate from the OEM that the generator offered by the bidder (it's brand and its model Number) is manufactured by the OEM as a

medical grade oxygen generator.

23. The compressor should provide feed air matching of ISO 8573 quality class 1.4.1.

The certificate for the same should be submitted in the technical bid.

24. Should have CE certificate issued by a notified body registered under European Commission for the Oxygen Generator System / USFDA certificate for the oxygen

Generator system. Copy of the certificate should be provided

25. ISO 10083/EN ISO 7396-1/ EN 737-3 European Standards and should be in accordance with medical device directives 93/42/EEC or Medical use

an international standard regarding the supply of oxygen via oxygen generators for a use in medical gases distribution networks.

26. The bidder shall provide a house testing certificate along with the machine for the purity of Oxygen.

27. The bidder should also take a sample of oxygen after completing the installation and provide test certificate for compliance to IP grade from any NABL approved labs.

28. The replacement of all kinds of filters, oils including the filtration system of the compressed air shall be included in the warranty and CAMC period.

29. The maintenance of the compressor and all the consumables required for periodic maintenance shall be included in the warranty period and CAMC period.

30. The gas pipeline connection to the hospital line has to be done by the bidder up to a maximum of 25 meters of Copper pipes with all required fittings.

31. The rate for cylinder refilling unit with all accessories shall be provided, which will not be considered for evaluation.

**SCOPE OF TURNKEY WORKS:**

1. The site clearing, leveling, construction of building for housing the oxygen generator, internal electrical works, electrical main panel, and taking the required

power supply from the hospital substation shall be under the scope of turnkey.

2. The size of the building should be adequate for the equipment offered and should be as per the prevailing rules and regulations.

3. The plant room shall be PCC and smooth cement plastering finished flooring of even surface with sheet roofing of minimum 0.5mm thickness.

4. The room should have adequate ventilation and sufficient windows with doors shall be provided.

5. Should be constructed so that natural light is available inside during daytime.

6. Rainwater should not enter the building (Proper side covering for the building should be provided).
7. The structure should be sufficient for taking the load of roof truss and sheet roofing.
8. The metal parts used in the structure have to be finished with primer and two coats of synthetic enamel paint.
9. Foundation and brickwork area should be plastered and finished with plastic emulsion exterior and interior paint (including primer and two coat plastic emulsion paint).
10. Two doors shall be provided. One main door for taking the machine inside of adequate size for the equipment offered shall be closed with a rolling shutter finished with primer and two coats of synthetic enamel paint. The second door shall be the hinged type for the emergency of size 90 cm width and 210cm height finished with primer and two coats of synthetic enamel paints.
11. The ducting of the compressor shall be done.
12. The area surrounding the plant room should have a proper drainage facility.
13. Oxygen generator shall not be installed close to Diesel Generator (Minimum 5 meter distance) or any other system which releases smoke or fire.
14. Exhaust fans of suitable size and quantity shall be provided.
15. Adequate lighting shall be provided.
16. The electrical cabling inside the room with adequate sockets and switches shall be provided. Adequate DB shall be provided. Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq. mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium-class PVC conduit, with modular switch, modular plate, suitable GI box, and earthing the point with 1.5 sq. mm FRLS PVC insulated copper conductor single core cable etc. as required.(Point Wiring).
17. Supply, laying, and clamping of PVC insulated and PVC sheathed armored copper/AL power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages, color washing, etc. as required. 4 Core Cables suitable for the Machine(Outgoing Cables to Compressor/PSA)
18. Earthing with copper earth plate 600 mm X 600 mm X 3 mm thick including accessories, and providing masonry enclosure with a cover plate having to lock arrangement and with 25 x 3 mm tinned copper strip watering pipe of 2.7 meters long, etc. with charcoal/ coke and salt as required. With 25 x 3 mm tinned copper strip, Copper Conductor of required SWG shall be used. Adequate earthing has to be done for the equipment also as per requirement.
19. Wiring for circuit/ submain wiring along with earth wire with the following sizes of FRLS PVC insulated copper conductor, single-core cable in surface / recessed medium-class PVC conduit as required, 3 Runs 2.5/3 Runs 4 Sqm wire(Polycab/Havells/RR Kabel)
20. Supply conveyance, installation, testing, and commissioning the light fittings of following types made from CRCA sheet 0.5mm thickness with all accessories and lamps directly on the wall and giving connections with 16/0.20 mm 3 core PVC insulated and sheathed round copper conductor flex wire or extending the original wiring and giving connections as required. 1200 mm 1X20W LED Lamp with box type fixture(Philips/Crompton/Bajaj).
21. Supplying and fixing following modular switch/ socket with modular plate & switch box including connections with modular plate etc. as required. 6 pin 15/16 amp socket outlet.
22. Supply and installation of sheet steel, phosphatized and painted, dust and vermin proof enclosure of TPN MCB DB including copper /brass bus bar, neutral link, earth bus and DIN rail suitable for fixing MCB/ isolator etc. fixed on the wall using suitable anchor bolts or fixed in recess including cutting a hole on the wall, making good the damages, color washing etc. as required, with Isolators RCCB and MCB's(TPN Distribution Board).
23. The LT panel shall be provided in the plant room. Supply of LT Panelboard cubicle type, made out of 2 mm thick CRCA sheet, totally enclosed, IP42, free-standing, wall/floor mounting, dust and vermin proof, powder-coated, indoor, compartmentalized, suitable for operation on 3 phase and neutral, 415 V, 50Hz AC system with busbars extendable on both sides, including all the necessary internal wiring , suitable spreader, etc. The panel shall be fabricated from a firm having CPRI certification with test certificates for similar panel(required for short circuit rating, temperature rise and IP classification) and with switchgear, metering instruments and accessories etc. complete as required as per drawing & specification.
24. The three-phase input power cable shall be taken from the hospital main panel. The rate has to be offered per meter separately for routing through wall and underground. Supply, laying, and clamping of PVC insulated and PVC sheathed armored copper/AL power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages, color washing etc. as required. 4 Core Cable suitable for the Machine (Incoming Supply from Hospital Panel). Supply & Laying of one number PVC insulated and PVC sheathed armored copper power/AL cable of 1.1KV grade of the following sizes in-ground including excavation of trench of size 35 x 75 cm, refilling the trench etc. as required including sand cushioning and protective covering (in ordinary soil). 4 Core Copper/AL Cable suitable for the Machine (Incoming Supply from Hospital Panel).
25. The electrical works shall be done as per the rules of the Kerala Electrical Inspectorate and the approval from the Kerala Electrical Inspectorate shall be submitted after completing the work.

**NOTE:**

The cost for turnkey works for civil and electrical has to be offered in Lumpsum. The rate for main electrical cabling work from the

main hospital panel to the LT panel of Oxygen generator shall be given in per meter for underground and wall clamping separately and quantity taken for evaluation is mentioned in the BOQ. The rate offered for main equipment turnkey works and main electrical cabling work will be cumulatively taken for arriving at the L1 bidder. The rate in the BOQ shall be offered for unit cost of 1000LPM machine and AMC & CAMC rate of one 1000LPM machine only. The evaluation criteria is designed to consider two quantities of equipment and twice the rate offered for CAMC to arrive at L1 bidder.