

**TENDER FOR SUPPLY, ERECTION & COMMISSIONING OF
AIRCONDITIONING UNITS IN OPERATION THEATRE**

EMS Co.Operative Hospital

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Bid document for “Tender for supply, erection & commissioning of Airconditioning works in operation theatre of EMS Hospital, Pathanapuram

Sealed tenders are invited by the Secretary, EMS Hospital, Pathanapuram for supply, erection & commissioning Airconditioning Units in operation theatre of EMS Hospital, Pathanapuram

Eligibility:

- Contractors who have sufficient experience of having successfully carried out similar works in Government Offices/Residential buildings/Office buildings/Pvt. buildings during the last three years are eligible to participate in the bidding.
- The EMS HOSPITAL reserves the right to verify the proof of having experience and expertise of the bidder in executing similar works and the bidder has to produce the proof thereof.

Submission of bid:

The tender document can be obtained in person from the below mentioned address from 10.00 am to 5.00 pm on all working days:

**“EMS Co. Operative Hospital
Pathanapuram PO, Kollam – 689695 “**

Cost of the Tender document – Rs.500+GST to be payable by way of DD in favor of “**EMS Co Operative Hospital**” payable at Kollam

Alternatively, the tender document can be downloaded from the website www.nshospital.org. The downloaded tender document is to be submitted along with the tender fees of Rs.500 +GST as mentioned above. The tenders submitted without the tender fees shall be rejected. The bid along with the EMS HOSPITAL’s terms and condition duly signed is to be submitted in a sealed envelope superscribing the envelope “Bid for supply, erection & commissioning of sliding doors for operation theatres of EMS Hospital, Pathanapuram.

SIGNATURE OF THE TENDERER

The Tenderer should submit the following along with the bid

- List of similar works completed during the last three years in any Government_organization or private company
- Registration of VAT and Service Tax
- Copy of PAN Number
- If the bid is from an authorized dealer/ distributor of any manufacturer, the dealer or distributor shall submit a valid proof for authorized dealership/distributorship.
- Satisfactory completion certificate from the organization where the tenderer has successfully completed similar projects within last 3 years.
- Earnest Money Deposit (EMD) amount of Rs.15000/- by way of Demand Draft drawn in_favor of “EMS Co Operative Hospital” payable at Kollam.

Last date for submission:

The last date for receipt of the bid at our office is The bid submitted beyond the above date and time shall not be considered for the bidding and shall be rejected.

SIGNATURE OF THE TENDERER

**Specification for the Tender for supply, erection & commissioning of air conditioning works in
Operation Theatre of EMS Hospital,Pathanapuram**

BILL OF QUANTITIES - HVAC WORKS									
SL.NO	DESCRIPTION	UNIT	QTY	MAKE	SUPPLY		INSTALLATION		TOTAL AMOUNT
					RATE	AMOUNT	RATE	AMOUNT	
1	Supply, Installation, Testing & commissioning of Condensing unit with R-410A /R 407C/ R32gas..All the fittings associated with the unit like - but not limited to -filter etc. to be considered and cannot charge separately. The outdoor units shall be connected to AHUs. The capacities for the same is listed under								
1.2	11 TR	Nos	1						
2	Supply, Installation and commissioning of copper refrigerant piping, complete with 19 mm thick closed cell Class O Nitrile Rubber Insulation , fittings, elbows, bends, supporting and clamping arrangement on walls. Refrigerant piping to be measured based on the distance between the indoor and outdoor units irrespective of number of circuits. The piping will be measured as one length for suction and liquid line. Insulation will be measured along with the piping and not be claimed as extra. Copper tubes, shall be with thickness conforming to L type to ATM standards.	RM	11						
3	Supply,Installation and commissioning of shutoff valves and dryer for odus for pump down during dryer changing and for necessary services if required .	LOT	1						

4	<p>AHUs:Supply, store, installation, testing & commissioning of Air Handling Units with thermal break profile with a minimum panel thickness of 40mm complete with DX cooling coil , Plug fan with VFD and its enclosure of IP 21 rating for indoor applications and IP 54 for outdoor applications, fan motor shall be of efficiency grade IE3, cleanable fabric filters of MERV 8 rating, fine filters MERV 13 rating (Both can be accomodated on a single frame) strip heaters of capacity in kW as mentioned below , condensate drain pan, DX coil piping connections, condensate drain connections, flexible duct connectors. The fan should deliver the design cfm at 50 Hz or lower.The electrical power wiring from the Isolator to the unit upto 3m shall be included in this scope. H The AHUs should meet the sound levels of 55 dbA as back ground noise in rooms or in waiting areas .The system shall be complete in all respects of commissioning.</p>								
5	<p>FLOOR MOUNTED/CEILING MOUNTED TYPE</p>								
5.1	<p>AHU-11 TR, 4000 CFM, 100 mm ESP - 9 kw heater</p>	Nos	1						
6	<p>Supply, store, installation, testing & commissioning of Inline Centrifugal Extract / Fresh air Fans shall be with direct driven circular section, suitable for ceiling suspension/mounting. The unit specifications and drawings for the following and the system shall be complete in all respects for commissioning.</p>								
6.1	<p>250 cfm ,30 mm ESP</p>	Nos	1						
7	<p>Supply, store, installation, testing & commissioning of PVC condensate drain pipe with U trap, 9 mm thick nitrile rubber insulation & fittings up to drain line. The system shall be complete in all respects for commissioning.</p>								

7.1	32mm Dia.	RO							
7.2	25mm Dia	RO							
8	Supply, store, installation, testing & commissioning of factory fabricated GI duct work using 120 gsm GI sheets with all accessories, supports, jointing materials, flanges complete all inline with the SMACNA and in line with the specifications, drawings etc.								
	JINDAL,TATA,SAIL								
8.1	Supply and Return ductwork complete (24 Gauge)- SLIP AND DRIVE	Sq.m	3						
9	Supply, store, installation, testing & commissioning of factory fabricated Aluminum duct work in Operation theatres of following Gauges as appropriate with all accessories, supports, jointing materials, flanges complete all inline with the SMACNA and in line with the specifications, drawings etc. The system shall be complete in all respects for commissioning .								
	JINDAL,TATA,SAIL								
9.1	Supply and Return ductwork complete (22 G)-SLIP AND DRIVE	Sq.m	47						
9.2	Supply and Return ductwork complete (20 G)- TDF OR TDC FLANGE	Sq.m	75						
9.3	Supply and Return ductwork complete (18 G))- TDF OR TDC FLANGE	Ro							
10	Supply, store, installation, Testing and commissioning of Supply and return Duct insulation which is closed cell elastomeric nitrile foam rubber insulation class stuck to duct as per specifications.The thermal conductivity of the insulation material shall not exceed 0.035 W/m K at an average temperature of of 30 degC. Density of nitrile rubber shall be 40-60 Kg/m3. The product shall have temperature range of -40 deg C to 105 deg C. The insulation material shall be fire rated for Class O a.								

10.1	Supply and Return ductwork (Thickness-25 mm)	Sq.m	122						
10.2	Extact Duct (Thickness-13 mm)	Sq.m	2						
11	Supply, store, installation, testing & commissioning of Grilles, Diffusers with plenums and Dampers as specified below. The system shall be complete in all respects for commissioning.								
11.1	Return Linear Bar Grille	Sq.m	1						
12	Supply, store, installation, testing & commissioning of Volume Control dampers in accordance with DW 144 / 154 on ductwork air distribution and extract systems to regulate airflow and balancing the air systems to adequately balance whether or not, these are indicated on the drawings. The system shall be complete in all respects for commissioning.								
12.1	GI volume control damper.	Sq.m	0.5						
12.2	Aluminum volume control damper.	Sq.m	0.5						
13	Supply, store, installation, testing & commissioning of powder coated Louvers at all air intake locations and extract locations. The system shall be complete in all respects for commissioning.	Sq.mtr	0.4						
14	Supply, store, installation, testing & commissioning of Thermostats for indoor units. The system shall be complete in all respects for commissioning.	No	1						
15	Supply, installation, testing and commissioning of humidity control panel with 3 phase indication lamps, auto manual selector switch , on off push buttons with indications, overload relay, incoming MCB, Humiidstat, safety thermostat, contactors trip indication. The control panel shall be made with powder coat finish. Logic-Heaters to be operate automatically when the selector switch is in Auto mode and whenever	Nos	1						

	operator wants to control the humidity in manual mode keep the Auto manual selector switch in manual mode and switch On the heater bank.								
16	SITC of copper cables in between humidity panel and outdoor for communication and power								
	4 C*4 SQMM	Rmtr	20						
	4C*2.5 SQMM	Rmtr	20						
	4C *1 SQMM	Rmtr	20						
17	Supply, store, installation, testing & commissioning of Differential pressure transmitters (devices, cabling, instrumentation) with 0.1 Pa resolution and will work in the range 0 to 35 Pa minimum. The rates of monitor and all other related accessories should be considered along with this line item and cannot be charged separately. The system shall be complete in all respects for commissioning. (For isolation rooms)	RO							
18	Supply, store, installation, testing & commissioning of Stainless-steel Laminar flow panels with HEPA filters for the OT's as per the specifications and drawings, all in line with the OT standards. Necessary test points / provisions for fixing sensors for BMS integration to be provided. The system shall be complete in all respects for commissioning. The sizes are as follows								
	(AMENSCO,AAF,IMPEC,SPECTRUM)								
18.1	8' x8 '	Nos.	1						
18.2	8 'x 10'	Nos.	RO						
	TOTAL - INCLUDING GST								

Terms and conditions of Bid:

1. Rate / Price

The unit rate to be quoted shall be unit rate and shall remain firm without the price variation clause. The bidders should not claim for any price variation / escalation.

- The bid submitted with a price variation/escalation clause will be treated as non-responsive and rejected.
- Bid / rates quoted by the bidder shall remain valid for 120 days from the date of opening of tenders for the purpose of acceptance and award of work; validity beyond 120 days from the date of opening shall be by mutual consent. No price variation / cost escalation is accepted.
- The rates quoted by the bidder should be inclusive of all the tax applicable, levies, excise duties, transit, insurance and freight and any other statutory levies etc.
- The Income Tax and any other taxes or charges as applicable will be deducted at source by the EMS Hospital from the successful bidder while making the payment.
- The price quoted by the bidder shall remain firm during the entire period of contract and shall not be subject to variation on any account.
- The bidder should quote the rate as specified in the scope of work. The bids submitted other than in the specified scope of work at Annexure-II shall be summarily rejected.

2. Execution of work:

- Time period of completion: The successful bidder shall execute and complete the work as per specification/Scope of work mentioned in Annexure-II to the satisfaction of the Officer In-Charge within a period of **4 weeks** from the date of award of work.
- The successful bidder to whom the work is awarded, shall have to execute the work as per the work order and the terms & conditions of this tender document.
- The EMS Hospital is not responsible for the breakage/damage of any goods during the transit. In that case, it is the responsibility of the firm/contractor to whom the work has been awarded.
- No extra cost shall be given for transportation; cost of labourers, insurance etc., as the rates quoted is all inclusive price
- The contractor shall have to bring all the supporting materials for carrying out the above work.
- The EMD will be released after a month from the date of submission of the performance guarantee.

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3. Variation in quantity / scope of work:

The quantity mentioned in the scope of work is approximate. The EMS Hospital reserves the right at the time of award/execution of the contract to vary the quantity specified in the scope of work without any change in the unit rate. However, the payment will be made as per the actual material used and work done.

4. Security Deposit & Performance Guarantee

The Contractor shall submit a bank guarantee for 5% of the bill amount towards security deposit. The bank guarantee shall be from a nationalized bank and shall be valid for a period of 12 months and additionally 60 days from the date of completion of the work to the full satisfaction of the EMS Hospital. The same shall be released by the EMS Hospital after the expiry of the above period.

5. Liquidated damages

For delay in completion of work, the liquidated damage @ 1% of order value per week or part thereof subject to the maximum of 10% of the order value shall be deducted.

6. Extension of work completion time

Ordinarily no time extension shall be granted. However, under unforeseen site conditions, the contractor shall make proper representation to the office in-charge with reasons for the delay upon which the extension of completion time may be allowed by the office in-charge.

7. Payment terms

A part payment up to 20% of the contract value shall be paid upon receipt of the materials required for project at the site after due verification and authentication by the Officer In-charge against submission of the part bill by the contractor. Balance Payment shall be made against the final bill within 45 days from the date of completion of the works to the satisfaction of the EMS Hospital/Officer In-charge in all respects and submission of completion certificate.

8. Completion Certificate

Within one month of the completion of the work the contractor shall furnish a certificate for such completion.

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9. Guarantee Period

Guarantee period for all the items supplied should be **36 months** from the date of completion of installation for poor workmanship, poor performance, an in case of deficiencies are found during guarantee period, the same shall be rectified or replaced free of cost by the Contractors at their own cost and risk.

10. Quality assurance:

The successful contractor should ensure the quality of material as per the requirement /discretion of the EMS Hospital and quality standards as specified by Government agencies.

11. Right to accept or reject tender

(i) The right of acceptance of tender will rest with the EMS Hospital.

(ii) The acceptance of the tender shall rest with the EMS Hospital who does not bind himself to accept the lowest tender and reserves to himself the authority to reject any or all of the tenders received without assigning any reason. Further, the EMS Hospital reserves the right to accept the whole or any part of the tender and tenderer shall be bound to perform the same at the rates quoted. All the tenders in whom any of the prescribed conditions are not fulfilled or are incomplete in any respect shall be liable to be rejected.

12. Insurance

Contractor shall at his own expenses carry and maintain insurance with reputable Insurance Companies for :(i) Employees State Insurance Act, (ii) workmen's Compensation & Employer's Liability Insurance, (iii) Any other Insurance required under Law or Regulations or by Owner.

13. Safety Regulations

Contractor shall adhere to safe construction practice and guard against hazardous and unsafe working conditions and shall comply with safety rules. The EMS Hospital shall not be held responsible for any accidents that occur due to unsafe practice of the persons employed by the contractor to carry out the work.

14. Other Important conditions

Before submitting their bid proposals, bidders shall carefully examine the site of the work to familiarize themselves with the site conditions which exist regarding present work to be executed, materials to be matched, precautions required, working space available and other conditions necessary to the making of the intelligent bids. All the above terms and conditions of the tender as mentioned above and included in the tender document is duly accepted.

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END OF THE DOCUMENT