SPEED POST

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SARDAR VALLABHBHAI NATIONAL INSTITUTE OF TECHNOLOGY, SURAT-395 007.
DEPARTMENT OF MECHANICAL ENGINEERING

No. DoME/PVB/(CRG,4/361)/ 3265 / 2272 /2024-25

Date: 12/12/2024

12 DEC 2024

To,
Institute Website

SUB: - Enquiry for fabrication, supply, installation and training of humidifier sourced with heat pump condenser (for detailed specifications refer Annexure-I)

Dear Sir,

You are requested to quote your prices for supply of stores listed overleaf. The quotations may be sent to the undersigned in a sealed envelope and subscribed as: "Quotation with reference to Enquiry No. DoME/PVB/(CRG,4/361)/ 3265 / /2024-25 dtd: 12/12/2024. Your quotation should reach the undersigned on or before **23/12/2024 at 5:00 pm.**

The quotations should be furnished with the following information.

1) The brand or make of each item should be specifically stated and wherever necessary, Complete set of specifications and dimensions should be given.
2) If asked, samples are accompany the quotations
3) Sales tax, General tax, Central Sales tax, Custom duty, Insurance charges, Packing and Forwarding charges, if not included in the prices quoted, should be clearly specified.
4) The period of validity of the quotation should be at least 45 Days. Offers subject to prior sale may please be avoided.
5) The delivery period is to be clearly mentioned in the quotation.
6) The mode of delivery of the stores may be mentioned. The delivery should be F.O.R. Surat or at the Institute.
7) All concessions available to an educational institution should be specified and also taken into account while quoting.
8) This Institute is located within the limits of S.M.C., Surat& exempted from the paying of octroi duty on incoming goods from outside limits of S.M.C., Surat
9) This Institute is registered with the dept. of scientific & industrial Research (DSIR) for the purpose of availing custom duty exemption & central excise duty exemption, and hence the certificate to this effect will be issued wherever it is necessary on demand.
10) Payment is normally made by cheque drawn on the S.V.N.I.T. Branch Office of State Bank of India, Surat-395007 within a period of thirty days from the date of receipt of stores. No request for advance payment will be considered.
11) Your specifications & terms- conditions should be as per the format attached, must be on your company letterhead & signed by an authorized person.
12) Offered quotation may be rejected if any ambiguity is found in offered specifications, terms & conditions supplied by party in specified tabular format.
13) The Director reserves the right to accept stores, which are not strictly in confirming with the specifications but otherwise, found suitable.
14) Similar work experience of fabricating humidifier/heat pump system/ HVAC is required and shall enclosed supporting documents.

Yours faithfully,
Shaubhus 12.12.24

Head, Mech. Engg. Dept

Annexure-1
Technical Specification
Condenser heat source humidifier

Sr. No.	Name of Item with specification	Qty.
1	**Humidifier:** Size: 0.45 × 0.45 × 1.5 m Material- Galvanized iron (GI) sheet Arrangement to spray the hot water on the top of the humidifier through nozzles. Nozzles to spray the saline water Packing Material- Honeycomb structure PVC packing material of required size. Provision to test different packing materials. Inlet and outlet connection for air (6" pipe) Insulation using glass wool	1
2	***Condenser heat source-Heat pump system:*** Condenser: Tank capacity:200-litre Water temperature: 60-65°C Inlet water temperature- 30°C. Water heat exchanger- Micro channel heat exchanger with glass enamel tank of required size. Piping from the condenser tank to the spray nozzles through CPVC pipes. Piping connections from the humidifier outlet to the condenser inlet for further heating	1
	Compressor: Capacity: 2 TR capacity Type: Hermetically sealed compressor Power: 220V/1 ph/50Hz Refrigerant: R407/R-22 or as per standard	1
	Throttle/Expansion Valve As per standard	1
	Solenoid valve To control the flow rate and change the refrigerant circuit for dehumidification	As per standard
	Evaporator Air flow rate: 200-400 kg/hr Inlet air Temperature: 60-80°C Inlet air relative humidity: 50-100% Air source heat exchanger as per standard	1
3.	**Pump** Water flow requirement: 100-400 LPH It should handle high-temperature saline (high TDS) water	2
4.	**Blower** Air flow rate: 100-400 kg/hr with air flow rate control	1
5.	Duct/ piping arrangement for water and air circuit as per manufacturer requirement	–
6.	**Control panel and safety:** Air and Water temperatures at various locations (Qty-10) Humidity sensors at various locations (Qty-4) High- and Low-pressure measurement High voltage protection Compressor overheating protection Refrigerant high-pressure protection Refrigerant low-pressure protection Circuit failure protection Energy meter – to measure the power consumption Rotameter to measure the flow rate of saline water and cooling water to water-cooled dehumidifier –(Qty-2)	As per system standard
	Performance parameters: The setup should be developed to generate hot water at 60-65°C and efficiently humidify the air in the humidifier unit with minimum energy consumption.	--