



**Department of Applied Mechanics  
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**Ref: APM/FMLAB/KARU/2018/002**

**Due Date: 01.02.2018**

1. Quotations are invited in duplicate for the item shown overleaf (in Annexure I).
2. The quotations duly sealed and super scribed on the envelope with the reference No. and due date, should be addressed to the undersigned so as to reach him on or before the due date stipulated above.
3. The quotations should be valid for sixty days from the due date and the period of delivery required should also be clearly indicated.
4. If the item is under DGS & D Rate Contract, Rate Contract Number and the price must be mentioned. It may also please be indicated whether the supply can be made direct to us at the rate contract price. If so, please send copy of the R.C. (Please note that we are not Direct Demanding Officers).
5. Relevant literature pertaining to the items quoted with full specifications (and drawing, if any) should be sent along with the Quotations, wherever applicable. Samples if called for should be submitted free of charges and collected back at the supplier's expenses.
6. **Local Firms:** Quotations should be for free delivery to this Institute. If quotations are for Ex-Godown, delivery charges should be indicated separately.
7. **Firms outside Chennai:** Quotations should be for F.O.R Chennai. If F.O.R. Consigner stationer freight charges by passenger train/lorry transport must be indicated. If Ex-Godown, Packing, forwarding and freight charges must be indicated.
8. The rates of GST and other taxes legally leviable and intended to be claimed should be distinctly shown along with the price quoted. Where this is not done, no claim for GST/General Taxes will be admitted at any stage and on any ground whatsoever.
9. IIT Madras is eligible for concessional GST. Relevant certificate will be issued. In case of Imports, the price should be quoted without custom duty. I.I.T. Madras is exempted from levy of IGST on Imports and eligible for concessional custom duty. In case of import supply, the price should be quoted on **EX-WORKS** and **CIP** basis indicating the mode of shipment.
10. Goods should be supplied with carriage paid and insured.
11. Goods shall not be supplied without an official supply order.
12. **Payment:** Every attempt will be made to make payment within 30 days from the date of receipt of bill/acceptance of goods, whichever is later.
13. **Acceptance and Rejection:** - IIT Madras has the right to accept the whole or any part of the Tender or portion of the quantity offered or reject it in full without assigning any reason.

*Arul Prakash*



**Dr. K. ARUL PRAKASH**  
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## ANNEXURE I

### Specifications of air heater

Heater type	Electrical
Inlet air temperature	$\leq 30^{\circ}\text{C}$
Required outlet air temperature	Up to $350^{\circ}\text{C}$
Fluctuation in outlet temperature	$\pm 5^{\circ}\text{C}$
Inlet air pressure	Up to 8 bar
Required outlet pressure	Up to 6 bar
Air flow rate	Up to 280 CFM (at STP Conditions)
Size of heater (including the insulation and outer cover)	It may be in cylindrical or rectangular shape. But the overall dimension should be less than following: Length $\leq 1.75\text{ m}$ ; Width $\leq 0.75\text{ m}$ ; Height $\leq 1.5\text{ m}$
Insulation	Proper insulation should be made to avoid the heat loss
Chassis and stand	Proper frame and legs should be provided for the total air heater setup
Control panel	Control panel should be provided with high accuracy temperature indicator and automatic temperature controller. It should be operate at any outlet temperature. Proper control arrangements should be made in order to get the desired outlet temperature. Calibration should be certified.
Operational hours	Air heater will be operated continuously for more than three hours
Design	Design of the air heater should be attached with the quotation
Erection and commissioning	Air heater setup should be installed at IITM and the complete operation should be demonstrated. Cost required for erection and commissioning should be mentioned separately.
Accessories	You are requested to provide all necessary accessories (like power cables and valves etc.) to ensure the complete installation and proper operation of air heater
Warranty	3 years from the date of installation is necessary
	Submit the supported documents, proof and recommendations from the customer

### Note:

Sealed quotation to be sent to

**Dr. K. Arul Prakash,  
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Department of Applied Mechanics,  
IIT Madras,  
Chennai – 600036,  
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