Department of Applied Mechanics
Indian Institute of Technology Madras
Chennai-600036, INDIA

K. Arul Prakash
Associate Professor

T : +91-44-22574066
F : +91-44-22574052
E: arulk@iitm.ac.in

March 09, 2018

Ref: APM/127/IMPRINT/KARU/2018/003 **Due Date: 23.03.2018**

1. Quotations are invited in duplicate for the item shown overleaf (in Annexure I).

2. The **quotations are to be in two parts as Technical Offer and as Commercial Offer**. The two parts of the offer are to be clearly marked in the envelopes must be enclosed in the one bigger envelope duly sealed and super scribed with the reference number and due date and must be addressed to the undersigned so as to reach him on or before the due date stipulated above.

3. **Fax and Email Quotation are not acceptable.**

4. The **quotations should be valid for sixty days** from the due date and the period of delivery required should also be clearly indicated.

5. Imported supplies should be quoted **for CIF Madras**.

6. 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).

7. 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.

8. **Local Firms:** Quotations should be for free delivery to this Institute. If quotations are for Ex-Godown, delivery charges should be indicated separately.

9. **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.

10. 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.

11. **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-WORXS** and **CIP** basis indicating the mode of shipment.

12. Goods should be supplied with carriage paid and insured.

13. Goods shall not be supplied without an official supply order.

14. **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.

15. **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.

Dr. K. ARUL PRAKASH
Associate Professor
Department of Applied Mechanics
Indian Institute of Technology Madras
Chennai - 600 036, India

Specifications

Type of Heat exchanger	Cross Flow Finned-Tube Compact Heat exchanger
Heat Load	10 kW
Tube side	Hot air
Outside	Cold air
Hot air, inlet temperature	200 ºC (maximum)
Hot air, outlet temperature	100 ºC (minimum)
Cold air, inlet temperature	40 ºC (minimum)
Cold air, outlet temperature	60 ºC (maximum)
Hot side heat transfer coefficient	$\geq$ 110 W/m^{2}K
Cold side heat transfer coefficient	$\geq$ 110 W/m^{2}K
Tube side pressure drop	$\leq$ 9000 Pa
Gravimetric efficiency (ratio between the heat load to the weight of heat exchanger)	$\geq$ 0.117 kW/kg
Tube material	Copper/Aluminum/Carbon steel
Fin type	Circular fin/Spiral fin
Fin material	Aluminum/Copper

Vendors must submit the data sheet (thermal and mechanical design) and detailed diagram of heat exchanger with the offer otherwise their offer will not be considered for further evaluation.