



**INDIAN INSTITUTE OF TECHNOLOGY MADRAS**  
**Chennai 600 036**

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Prof. Srikrishna Sahu  
Project Coordinator

Ref: MEE/TDCE/2020-21/0001/SRIS  
Dated: 17.09.2020

Limited Tender No: MEE/TDCE/2020-21/0001/SRIS

**Due Date: 09.10.2020, 3:00pm**

**Pre-Bid meeting: - Not required.**

**Bid opening meeting on Due Date: 09.10.2020, 4:00pm**

Dear Sir/Madam,

On behalf of the Indian Institute of Technology Madras, offers are invited for the supply of “**AIR WIND TUNNEL**” conforming to the specifications given in (**Annexure-I**).

**Terms and Conditions of Limited Tender**

- 1. Preparation of Bids:** - The Limited tenders should be submitted under **one bid system** (i.e.) Technical-cum-Financial bid.
- 2. Delivery of the tender:** - The tender shall be sent to the below-mentioned addresses either by post or by courier (duly sealed and super scribed on the envelope with the reference No and due date) so as to reach the following address before the due date and time specified in our Schedule:  
**Prof. Srikrishna Sahu,  
Thermodynamics and Combustion Lab,  
Department of Mechanical Engineering  
IIT Madras  
Chennai - 600 036**
- 3. Price:** - The price should be quoted in net per unit (after breakup) and must include all packing and delivery charges to **Department of Mechanical Engineering**.
  - a. The offer/bid should be exclusive of taxes and duties. The percentage of tax & duties should be clearly indicated separately. IIT Madras is eligible for concessional GST and relevant certificate will be issued.
  - b. In case of import supply, the price should be quoted without custom duty. IIT Madras is exempted from levy of IGST on Imports and eligible for concessional custom duty (not exceeding 5%) and the price should be quoted on EX-WORKS and CIP (stating the Cost, Insurance, Freight separately) and indicating the mode of shipment.
- 4. Terms of Delivery:** - The item should be supplied to our Departments as per Purchase Order. In case of import supply, the item should be delivered at the cost of the supplier to our Institution. The Installation/Commissioning should be completed as specified in our important conditions.
- 5. Catalogue:** Original catalogue (not any photocopy) of the quoted model duly signed must accompany the quotation in the Technical-cum-financial bid
- 6. Late offer:** - The offers received after the due date and time will not be considered

7. **Payment:** - No Advance payment will be made for Indigenous purchase. However, 90% Payment against Delivery and 10% after installation are agreed to wherever the installation is involved. In case of import supplies the payment will be made only through 100% Letter of Credit i.e. (90% payment will be released against shipping documents and 10% after successful installation wherever the installation is being done).
8. **Advance Payment:** - No advance payment is generally admissible. In case of specific percentage of advance payment is required, the Vendor has to submit a Bank Guarantee from a Nationalized Bank of India equal to the amount of advance payment.
9. **On-site Installation:** - The equipment or machinery has to be installed or commissioned by the successful bidder within number of days (as prescribed by PI's) from the date of receipt of the item at site of IIT Madras.
10. **Warranty/Guarantee:** - The offer should clearly specify the warranty or guarantee period for the machinery/equipment.
11. **Validity:** Validity of Quotation not less than 60 days from the due date of tender
12. **Bid Opening:** The bid will be opened on **09.10.2020, 4:00pm** at the Department of Mechanical Engineering, IIT Madras.
13. **Accept /Reject:** IIT Madras reserves the full right to accept / reject any tender at stage without assigning any reason.
14. **Settlement of Disputes:** Any legal disputes arising out of any breach of contract pertaining to this tender shall be settled in the court of competent jurisdiction located within the city of Chennai in Tamil Nadu.
15. **Risk Purchase Clause:** - In the event of failure of supply of the item/equipment within the stipulated delivery schedule, the purchaser has all the right to purchase the item/equipment from other sources on the total risk of the supplier under risk purchase clause.
16. **Unsolicited offers:** "This notice is being published **for information only** and is not an open invitation to quote in this limited tender. Participation in this tender is by invitation only and is limited to the selected registered suppliers. Unsolicited offers are liable to be ignored. However, suppliers who desire to participate in such tenders in future may apply for registration as per procedure." The Website for Registration of vendors is <http://web.iitm.ac.in/supplier/> and the mail address for queries is "[workflow@rt.iitm.ac.in](mailto:workflow@rt.iitm.ac.in)".

Yours sincerely,

**Prof. Srikrishna Sahu,  
Thermodynamics and Combustion Lab,  
Department of Mechanical Engineering  
IIT Madras  
Chennai - 600 036**

**TECHNICAL SPECIFICATIONS FOR AIR WIND TUNNEL**

**Item: Subsonic air wind-tunnel for spray-wall interaction studies**

- The wind tunnel shall be of suitable design and construction to achieve an air flow velocity in the range of 30 m/s to 70 m/s in the test section.
- The test section shall have a square cross section measuring 150mm X 150mm. The length of the test section shall be 550mm.
- Optical access for the test section shall be provided on all four sides of the test section.
- The wind tunnel shall have a provision to measure the air velocity in the above said range at the inlet and exit of the test section.
- One set of velocity measurement system shall be provided as a part of the installation.
- The test section shall have a provision to anchor the specimen or coupon firmly to/through one of the side walls while maintaining optical access.
- A ¼” NPT male bulk head provision to accommodate a water spray connection at upstream of the test section shall be provided.
- An inlet structure with honeycomb upstream of the test section and a diffuser section downstream of the test section shall be provided as part of the overall setup.
- The air flow shall be established by an axial fan located downstream of the test section (at the exit of the diffuser) and operating the suction mode.
- The fan and the drive motor shall be coated with water repellent.
- The fan drive shall be rated for a power of 12-14 hp.
- A variable frequency drive shall be provided to vary the speed of the axial fan and thereby achieve the desired velocity in the test section.
- The overall wind tunnel set up shall be less than 4 meters in length to facilitate installation at the identified location.
- The diffuser shall ensure smooth operation in the air velocity range of 0-70 m/s.