

INDIAN ASSOCIATION FOR THE CULTIVATION OF SCIENCE
2A & 2B , Raja S.C. Mullick Road, Jadavpur, Kolkata-700032

NIT No. : IACS/CSS/DM/21-22/105

Date: 28.12.2021

Sealed tender in two bids system (**Technical Bid & Financial bid**) is invited from bonafide, resourceful and eligible manufacturer/exclusive distributor/vendors for the purchase of “**High temperature lab furnace upto 1600 C**” with necessary accessories.

Part-I (Technical Bid) of the tender should contain technical specifications in detail as well as commercial terms and conditions. Part-II (Price Bid) should clearly indicate group-wise price, if needed, as mentioned in the technical bid. The Technical Bid and Price Bid are to be submitted in separately sealed envelopes, distinctly marked accordingly and both to be put inside another envelope, that should be sealed and super scribed with tender notice no. and due date. The bidders may submit bids duly signed in their own letterheads.

Completed tender bids should reach the office of the **Registrar, Indian Association for the Cultivation of Science (IACS), 2A & 2B Raja S. C. Mullick Road, Jadavpur, Kolkata- 700032** on or before the scheduled date and time specified below:

Tender Notice No.	NIT No (IACS/CSS/DM/21-22/105) Date: 28.12.2021
Last date and time of submitting tender	20.01.2022 (2.00 PM)
Pre-bid meeting (online mode) to discuss technical specification and detail presentation by the representative(s) of the interested companies on the technical specifications of their instrument and application with representative data acquired in their instrument elsewhere.	06.01.2022 @3.30 PM through online mode (Interested bidders need to send participation request before 05/01/2022 to sspdm@iacs.res.in ; Meeting link will be sent upon receiving the request)
Date and time of opening tender (Technical Bids)	20.01.2022, at 3.00 PM
Place of opening tender	S. N. Bose Hall/or 2nd Floor Meeting Room, IACS Main Building
Date and time of opening of Price Bid	The Price Bids of the bidders qualifying the technical bid will only be opened, the date of which will be intimated to the short-listed bidders at their email addresses. The rest of the bids will be rejected.
Contact	Email: sspdm@iacs.res.in Tel.+91 33 2473 4971 [Ext 2123]

The technical bids will be opened first to judge/evaluate the technical specifications of the said instrument and thereafter the price bids of only technically qualified bidders will be opened.

Technical Bid Evaluation: The Technical Bids will be evaluated in the presence of the representatives of intending bidders who will be able to clarify technical aspects of their bids, if any, required by the Technical Evaluation Team.

Opening of price-bid: The Price Bids of the bidders qualifying the technical bid will only be opened, the date of which will be intimated to the short-listed bidders at their email addresses. The rest of the bids will be rejected.

Please note that IACS will not provide any accommodation or reimburse any expenses to any of the bidders for attending opening of technical bid.

Quotations received incomplete or beyond the stipulated time will be summarily rejected.

Bidders should submit their past experience for supplying and successful installation of similar units to other research Institutes/Universities/other organizations in India and abroad. Please provide documentary proofs of such successful installation and supportive documents that the instruments are running successfully.

1. TECHNICAL BID

The technical bid should contain technical specifications and should be kept in a separate sealed envelope duly super scribed as “TECHNICAL BID” on the outer cover of the envelop as already detailed above. It should be clearly mentioned on the envelope as **"Technical Specification for High temperature lab furnace upto 1600 C"**.

Technical Specifications for “High temperature lab furnace upto 1600 C”

- It should be Non-rust Textured Stainless steel casing box furnace of maximum temperature (T-Max.) of 1600 °C or more & with Continuous Operation temperature of 1550 °C.
- Controller should be Intuitive touch screen panel user interface with easy operation with high-contrast, colourful display of functions and temperature curves with precise and accurate temperature control. Easy program entry and control of furnace functions with graphic display of temperature curves (program sequence). User levels & Program status display with estimated end time and date. Documentation of the firing curves on USB storage medium in .csv file format
- Self-diagnostics & Service information via USB stick & WLAN-capable
- Modern layout & Clear presentation with Plain text display in 24 languages for features like start time configurable; Operating hour counter; auto tune function; Temperature variable as °C & °F; kWh meter; Real time clock; Skip-button for segment jump, Malfunction memory, Help menu for all important functions
- Inbuilt features parameterized for the different processes with 5 programs / 4 steps, Up to 2 settable functions, Calibration (10 base points) & Log (Real-time clock) USB interface.
- The controller should facilitate iOS / Android App-Functions (from Google Play store / App store) Convenient monitoring of multiple furnaces simultaneously, Dashboard, Individual overview of a furnace, Display of active/inactive furnaces, Operating status, Current process data etc.
- Temperature control Accuracy of ± 1 °C or better & Temperature input of per Deg C or per Minute or better.
- The controller display should have Program status, Menu bar, Extra functions, Information lines, Page display, Data bar, controller lock, heating status included on the controller display.

- The controller should be equipped with Controller Lock during a Running Program to prevent intentional and unintentional interventions in the running of a heating program.
- The PID Programmer Controller should have the facility to auto start & resume the ongoing program after a power outage / power failure.
- The controller should be equipped with minimum 2 extra functions to support additional functions such solenoid valves, optical and acoustic signal etc.
- The controller should have option for retrieving recorded data on an external drive & recording of process data with USB Flash Drive.
- The system should have the facility of writing Programs & Generating the reports on PC through external flash drive/pen drive.
- Switching system with solid-state-relays, power tuned to the silicon carbide SiC rods. Easy replacement of heating rods & High-quality fibre insulation material which are not classified as Carcinogenic according to TRGS 905, class 1 or 2 for furnace for the high working temperature.
- Double-walled casing for low external temperatures and high stability.
- Lift up door with hot surface facing away from the operator.
- Adjustable air inlet integrated in the door, exhaust air outlet in roof of furnace.
- Should meet applied harmonized standards or better EN 61010-1, EN 60519-1, EN 60519-2, EN 61000-6-2, EN 61000-6-4.
- Chamber volume of 3 litres or more with Outer dimensions of furnace less than W 500x D 600 x H 600 mm
- Heating time to maximum temperature ($T_{\max}$) less than 35 Minutes.
- Heating capacity 10.5 kW & 400 V AC / 50 Hz /Three- phase machine. Weight : less than equal to 40 kg

NOTES / Pre-Qualification criteria:

A) Equipment offered must be a model from the current serial production range of the manufacturer. Customized or One off Manufactured Model will not be accepted. Offer should be supported with printed catalogue and depiction on company website.

B) The local vendor of OEM must have supplied at least 3-5 similar High Temperature Furnaces to research Institutes/Universities/other organizations in India and abroad. Please attach a reference list of supplies in last 3 year with contact details (Name, Phone, email address) of at least 7-10 users.

C) The company should be an Original equipment manufacturer of the furnace with expertise of manufacturing over 20 years, please attach exclusive authorization certificate specific for this tender with quote without which bid will be rejected. This criteria is proof of accountable service supported by vendor & OEM.

D) The manufacturer must be an ISO9001 company & equipment Model must be with CE compliance.

Warranty: Minimum 1 years while 3 years extendable warranty is preferred. The warranty will be valid from the date of actual installation.

Proper installation and training should be provided by the vendor. Onsite after sales service, within 48 hours of reporting any problems, is mandatory. It is essential to have a technical person stationed in Kolkata.

A compliance table (see below) must be prepared and submitted along with the technical bid.

Sr. No	Tender specification	Your instrument offered specification	Extent of compliance

2. PRICE BID:

The financial bid indicating (item-wise) price for the item(s) mentioned in the technical bid should be kept in a separate sealed envelope duly super scribed as “PRICE BID” on the outer cover of the envelop as already detailed above. Price bids of only technically qualified bidders will be opened and they will be intimated the date and time of the opening of price bid at their e- mail ids. Rest of the bidders will stand rejected.

PRICE: Price to be quoted on CIF Kolkata and also FOB basis.

3. BID SECURITY:

- a. An Account payee Demand Draft/Pay Order of any of the Nationalized Banks for Rs. 15,000/- (Rupees FIFTEEN thousand only) drawn in favour of “Indian Association for the Cultivation of Science (State Bank of India, Jadavpur University Branch, A/C No. 11079699211, IFSC: SBIN000093, MICR Code: 700002048)” is to be furnished by the bidders except those who are registered with the Central Purchase Organizations, National Small Industries Corporation or the concerned Ministry or Department, as Bid Security money or Earnest Money Deposit (EMD). Alternatively, the Bidder shall have the option to furnish the EMD in the format of Bank Guarantee (BG) of any Indian Nationalized Bank preferably located at Kolkata.
- b. The Demand Draft for the Bid-Security should have at least 90 (ninety) days validity period of opening of the bids.
- c. In case of non-award of the work the Bid Security money would be returned to the unsuccessful Bidders.

4. PERFORMANCE SECURITY:

An Account Payee Demand Draft on any nationalized bank of India of 10% of the order value in the name of “Indian Association for the Cultivation of Science” is to be furnished by the successful bidder as Performance security. Performance security money should remain valid for a period of 60 days beyond the date of completion of all contractual obligations of the supplier including warranty obligations. Bid security money or EMD will be refunded to successful bidder on receipt of the

Performance security money.

5. TERMS OF PAYMENT:

Payment will be made through irrevocable Letter of Credit in two instalments. 90% of the money will be released on submission of shipping of documents. Remaining 10% will be released after successful installation of the instrument.

6. GENERAL INSTRUCTIONS:

1. Validity of tender: Tender submitted should remain valid for at least six months from the date of opening the tender. Validity beyond six months from the date of opening of the tender shall belapsed by mutual consent.
2. The tender should accompany a compliance chart.
3. Incomplete and conditional tenders as well as tenders received after the due date will be summarily rejected without assigning any reasons thereof.
4. At any time prior to the bid due date, IACS may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective bidder during pre-bid meeting, modifythe bidding documents. The amendment(s) will be notified on the institute website. Prospective bidders are advised to occasionally to visit the website (www.iacs.res.in/tender) for any amendment.
5. Installation/Demonstration/Application training at site: Installation & user training at IACS, free of cost by the supplier.
6. Service facility: In India, preferably Kolkata, supplier should mention their details of service setup and man powers who are responsible for after sales support. Response time should be within 24 hrs.
7. The model number, make and a printed literature of the product should be submitted positively.
8. Proposed delivery schedule should be mentioned clearly.
9. Manufacturers / exclusive distributors / vendors should have history of supplying this type of instruments to this or other scientific organizations. Availability of a list in this regard would be preferred.
10. Authorized dealership certificate should be provided in case of principal manufacturing company is not quoting directly.
11. Guarantee certificate, users manuals etc. are to be handed over to the user after successful commissioning of the system.
12. In the event of date being declared a closed holiday for purchaser's office, the due date for submission of bids and opening of the technical bids will be the following working day at the appointed time.
13. In case of any dispute, the decision of IACS authority shall be final and binding on the bidders.

14. For any clarification regarding technical specifications, information etc., please send your queries to Dr. Devajyoti Mukherjee (sspdm@iacs.res.in).

15. The authority of IACS reserves the right to reject any or all of the tenders received without assigning any reason thereof.

Acting Registrar