



Indian Institute of Science Bangalore

The Chairperson

Department of Civil Engineering
Indian Institute of Science (IISc)
Bangalore 560 012, Karnataka, India
Email: chair.civil@iisc.ac.in

(Attn: Dr. Keshav Bharadwaj Ravi; Ph: +91 80 2293 2812; keshavbr@iisc.ac.in)

Date: 30 August 2024

Ref: CiE/2024-25/KBR/01

Global Tender Notification for the Procurement of an Isothermal Calorimeter for Measuring the Heat of Hydration of Cement Pastes and Similar Materials

This is a Request for Quote (RFQ) from the Indian Institute of Science (IISc), Bangalore, for the supply and installation of a “Isothermal Calorimeter” at the Civil Engineering department, IISc Bangalore.

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1 Section 1: Bid Schedule

1	Tender No.	CiE/2024-25/KBR/01
2	Tender Date	30 August 2024
3	Item Description	Isothermal Calorimeter
4	Tender Type	Two bid system (i) Technical Bid (Part A) (ii) Commercial Bid (Part B)
5	Place of tender submission	Chairperson's Office C/O The Chairperson, Department of Civil Engineering Indian Institute of Science, CV Raman Road, Bangalore, Karnataka 560012, India
6	Last date & time for submission of tender	23 September 2024, 4:00 PM
7	For further clarification	Dr. Keshav Bharadwaj Ravi Room No. 209, Structural Engineering Lab, Department of Civil Engineering Indian Institute of Science, Bangalore, Karnataka 560012, India Phone no.: +91 80 2293 2812 Email: keshavbr@iisc.ac.in

2 Section 2: Eligibility Criteria

Prequalification criteria:

- 1) The Bidder's firm should have existence for a minimum of 3 years. (Enclose Company Registration Certificate)
- 2) The Bidder should have qualified technical service personnel for the instrument(s) based in India.
- 3) If the Bidder is a local distributor/dealer/Agent, it is mandatory to attach authorization certificate along with the technical bid from the original equipment manufacturer.
- 4) The bidder should sign and submit the declaration for Acceptance of Terms and Conditions as per Annexure 4 in Section 5.
- 5) The Bidder must not be blacklisted/banned/suspended or have a record of any service-related dispute with any organization in India or elsewhere. A declaration to this effect must be given as per Annexure 3 in Section 5.

3 Section 3: Terms and Conditions

3.1 Submission of Tender

1. All documentations in the tender should be in English.
2. The quote should come only from Foreign/ International Original Equipment Manufacturer (OEM) or their Indian authorized distributor.
3. The tender should be submitted in two envelopes (two bid system). The tenderer should submit the technical and financial bids separately in sealed envelopes superscribing the envelopes as 'Technical bid' and 'Financial bid'.
 - a. Technical Bid (Part A): Technical bid consisting of all technical details and check list for conformance to technical specifications. The technical proposal should contain a technical compliance table with 5 columns:
 - i. The first column must list the technical requirements, in the order that they are given in the technical requirement below.
 - ii. The second column should provide specifications of the instrument against the requirement. Please provide quantitative responses wherever possible.
 - iii. The third column should describe your compliance with a "Yes" or "No" only. Ensure that the entries in column two (2) and column three (3) are consistent.
 - iv. The fourth column should state the reasons/explanations/context for deviations, if any.
 - v. The fifth column can contain additional remarks. Vendors can use this opportunity to highlight technical features, qualify response of previous columns, or provide additional details. Vendors can also use this opportunity to compare your solution with that of your competitors or provide details as requested in the technical requirements table below.
 - b. Commercial Bid (Part-B) – Indicating item wise price for the items mentioned in the technical bid, as per the format of quotation provided in tender, and other commercial terms and conditions.

- c. Both these envelopes must be put into a single envelope, superscribed 'TENDER FOR: ISOTHERMAL CALORIMETER'. This should reach the following address by 4 PM on 23-September-2024:

*Chairperson's Office,
C/O The Chairperson,
Department of Civil Engineering,
Indian Institute of Science,
Bengaluru, Karnataka - 560 012
Contact: +91(80)2293 2323
chair.civil@iisc.ac.in
Attn: Dr. Keshav Bharadwaj Ravi*

4. The technical bid and price bid should each be placed in separate sealed covers, superscribing on both the envelopes the tender no. and the due date. Both these sealed covers are to be placed in a bigger cover which should also be sealed and duly superscribed with the Tender No., Tender Description & Due Date.
5. The SEALED COVER superscribing tender number (CiE/2024-25/KBR/01) / due date & should reach Chairperson's Office, Department of Civil Engineering, Indian Institute of Science, Bangalore – 560012, India on or before due date mentioned in the tender notice. In case due date happens to be holiday the tender will be accepted and opened on the next working day. If the quotation cover is not sealed, it will be rejected.
6. All queries are to be addressed to the person identified in "Section 1 – Bid Schedule" of the tender notice.
7. GST/other taxes, levies etc., are to be indicated separately. The BIDDER should mention GST Registration and PAN in the tender document (Indian Bidders only).
8. If price is not quoted in Commercial Bid as per the format provided in tender document the bid is liable to be rejected.
9. The Institute reserves the right to accept or reject any bid and to annul the bidding process and reject all bids at any time prior to the award of contract, without there by incurring any liability to the affected bidder or bidders or any obligation to inform the affected bidder or bidders.
10. Incomplete bids will be summarily rejected.

3.2 Cancellation of the Tender

Notwithstanding anything specified in this tender document, the purchase committee, IISc Bangalore, in its sole discretion, unconditionally and without having to assign any reason, reserves the rights:

- a. To accept OR reject lowest tender or any other tender or all the tenders.
- b. To accept any tender in full or in part.
- c. To reject the tender, offer not confirming to the tender terms.

3.3 Validity of the Offer

The offer shall be valid for 90 days from the date of opening of the commercial bid.

3.4 Evaluation of the Offer

1. The technical bid (Part A) will be opened first and evaluated.
2. Bidders meeting the required eligibility criteria as stated in Section 2 of this document shall only be considered for Commercial Bid (Part B) opening. Further, agencies not furnishing the documentary evidence as required will not be considered.
3. Pre-qualification of the bidders shall not imply final acceptance of the Commercial Bid. The agency may be rejected at any point during technical evaluation or during commercial evaluation. The decision in regard to acceptance and / or rejection of any offer in part or full shall be the sole discretion of IISc Bangalore, and decision in this regard shall be binding on the bidders.
4. The award of contract will be subject to acceptance of the terms and conditions stated in this tender.
5. Any offer which deviates from the vital conditions (as illustrated below) of the tender is liable to be rejected:
 - a. Non-submission of complete offers.
 - b. Receipt of bids after due date and time and or by email / fax (unless specified otherwise).
 - c. Receipt of bids in open conditions.
6. In case any bidder is silent on any clauses mentioned in these tender documents, IISc Bangalore shall construe that the bidder had accepted the clauses as of the tender and no further claim will be entertained.

7. No revision in the terms and conditions quoted in the offer will be entertained after the last date and time fixed for receipt of tenders.
8. The lowest bid will be calculated based on the total price of all items tendered for Basic equipment along with accessories selected for installation, operation, preprocessing and post processing, selected optional items, selected recommended spares, and the selected extended warranty or annual maintenance contract, as chosen by the institute.

3.5 Prerequisites

The bidder will provide the prerequisite installation requirement of the equipment along with the technical bid. This will include the site preparation guide.

3.6 Warranty

The calorimeter is to be under warranty period of a minimum of three (3) years including free supply of spare parts, data analysis software, and faulty consumables from the date of functional installation. If any portion of the system is found to be defective, the defective system has to be replaced or rectified at the cost of the successful bidder within 45 days from the date of receipt of written communications from IISc, Bangalore. If there is any delay in replacement or rectification, the warranty period should be correspondingly extended.

3.7 Extended Warranty and Annual Maintenance Contract

1. The cost per year for an additional two (2) years of warranty after the initial three (3) year warranty period has ended must be mentioned as an **optional add-on** in the quotation.
2. The cost per year for an annual maintenance contract after the initial three (3) year warranty period has ended must be mentioned as an **optional add-on** in the quotation.
3. The tenderer should clarify if periodic (preventive) maintenance be done by a trained on-site engineer or requires a specialist from the OEM.
4. The vendor should have qualified technical service personnel for the equipment based in India and must assure a response time of less than 3 business days after receiving a service request.

3.8 Purchase Order

1. The order will be placed on the bidder whose bid is accepted by IISc based on the terms and conditions mentioned in the tender document.
2. The quantity of the items in tender is only indicative. IISc, Bangalore reserves the right to increase /decrease the quantity of the items depending on the requirement.
3. If the quality of the product and service provided is not found satisfactory, IISc, Bangalore reserves the right to cancel or amend the contract.

3.9 Delivery, Installation and Training

1. The successful bidder shall provide the lead time to delivery, installation and made functional at IISc, Bangalore from the date of receipt of purchase order.
2. The system should be delivered, installed and made functional within 84 days (12 weeks) from the date of receipt of purchase order.
3. The validity of the quotation shall be 90 days.
4. The supply of the items will be considered as effected only on satisfactory installation and inspection of the system and inspection of all the items and features/capabilities tested by the IISc, Bangalore. After successful installation and inspection, the date of taking over of entire system by the IISc, Bangalore shall be taken as the start of the warranty period.
5. No partial shipment is allowed.
6. The bidder should also arrange for technical training to the local facility technologists and users.
7. No additional fee for installation and training will be paid. All such costs are to be considered in the base price.
8. The successful bidder must conduct post-installation acceptance tests. The successful tenderer is required to carry out full testing and demonstration of the isothermal calorimeter's performance at Indian Institute of Science, along with training the representative(s) from the institute on the operation and some sample testing for acceptance. All guaranteed specifications will have to be demonstrated, upon request, in an active installation. Failure to demonstrate any promised specifications will be deemed as technical non-compliance. The tests can be recorded in the presence of representatives of the OEM. Inability to pass these tests will be a counted as a technical failure and breach of contract.

- a. The successful bidder shall perform a performance test with at least two cement paste samples for demonstration.
- b. The successful bidder will perform general performance testing (GPT) after installation. After satisfactory completion of the GPT, the vendor must demonstrate that all eight (8) channels of the calorimeter are functioning within the required accuracy and precision limits.
- c. The successful bidder shall demonstrate the inputs in the software for accurate measurement of the heat of hydration and cumulative heat evolution.

3.10 Payment Terms

The payments to non-domestic vendors will be through a Letter of Credit and milestone of the payment will be determined after the mutual discussions with the successful bidder. As per GFR no advance payment can be made to domestic vendors, unless an equal amount of bank guarantee is provided.

3.11 Statutory Variation:

Any statutory increase in the taxes and duties subsequent to bidder's offer, if it takes place within the original contractual delivery date, will be borne by IISc, Bangalore subject to the claim being supported by documentary evidence. However, if any decrease takes place the advantage will have to be passed on to IISc, Bangalore.

3.12 Disputes and Jurisdiction:

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 Bangalore, India.

3.13 General

1. All amendments, time extension, clarifications etc., within the period of submission of the tender will be communicated electronically. No extension in the bid due date/time shall be considered on account of delay in receipt of any document(s) by mail.
2. The bidder may furnish any additional information, which is necessary to establish capabilities to successfully complete the envisaged work. It is however, advised not to furnish superfluous information.

3. The bidder may visit the installation site before submission of tender, with prior intimation.
4. All imported equipment should be quoted in the currency of the country of origin, and all locally sourced items should be quoted in Indian Rupees.
5. The decision of the purchase committee is final.
6. If any information furnished by the bidder is found to be incorrect, either immediately or at a later date, it would render the bidder liable to be debarred from tendering and/or taking up of work in IISc, Bangalore.
7. The tenderer should have a track record of supplying and installing similar equipment to at least two organizations in India, preferably at Indian Institute of Technologies (IITs), National Institute of Technologies (NITs), Indian Institute of Science (IISc), or national labs.
 - a. **Relevant documents including user testimonial** on product performance, and service and maintenance should be furnished. If similar equipment has been supplied to IISc, user testimonial on the product performance, and service and maintenance from the user at IISc should be furnished.
 - b. The timeline of supply of the equipment to the organizations in India shall also be furnished.
 - c. The turnaround time for services, if any were performed at the two organisations listed, shall also be provided.
8. The institute reserves the right to withhold placement of final order. The right to reject all or any of the quotations and to split up the requirements or relax any or all of the above conditions without assigning any reason.

4 Section 4: Technical Specifications

4.1 General Specifications:

1. The instrument shall be capable of measuring heat generated under isothermal conditions in hydrating cementitious materials. The instrument shall be capable of measuring the rate of heat evolution due the reaction of cement-based materials, including cement and supplementary admixtures, with water.
2. The instrument shall be compliant with ASTM C1679 and ASTM C1702.
3. The instrument must be capable of measuring heat generation continuously for a period of at least 10 days.
4. The calorimeter must have eight (8) usable channels in one single instrument.
5. Each of the usable channels must be suitable for sample sizes of 20ml or higher.
6. The calorimeter must be equipped with an air thermostat and a data logging system.

4.2 Measuring Range Specifications:

7. The operating temperature range must be from a minimum of 5 °C or lower to a maximum of at least 70 °C or higher.
8. The instrument should have a temperature stability of ± 0.02 °C or narrower.
9. The instrument should have a temperature accuracy of ± 0.15 °C or narrower.
10. The baseline drift must not be more than 5 μ W.
11. The baseline deviation (random noise) must be less than 1 μ W.

4.3 Other Technical Specifications:

12. All accessories such as sample containers and required cables should be provided.
13. Two hundred (200) numbers of disposable sample vials (polypropylene or polyethylene or glass ampules) along with lids are to be provided. All accessories required to prepare the sample vials, such as crimping tools and eyelets, are also to be provided.
14. A computer system, compatible with the machine software and pre-installed with the machine software, that can be used to control the calorimeter should be supplied along with the instrument.
 - a. The computer shall be branded (not assembled) and have a specification of 8 GB RAM, 1 TB HDD, and i5 processor, or better.
 - b. If the provided computer system is a desktop system, a 19" monitor, keyboard, optical mouse and suitable UPS shall also be provided.
 - c. The computer shall have a three (3) year warranty period.

- d. An installation media, such as a USB drive, containing the installation files for the machine software and necessary instructions for installation must be provided along with the computer.
15. A UPS system, including the required batteries, for the Isothermal Calorimeter designed to provide at least two hours of backup power for the calorimeter and computer shall be provided. The UPS system can be common for the calorimeter and the computer. All cabling and accessories must be provided.
 16. The software must contain optional applications to infer setting time, compressive strength, optimum sulfate, activation energy and to apply baseline correction for RILEM R3 testing.
 17. All the technical literature and catalogues of various sub-systems in English must accompany the quotation. In the event of an order, the successful bidder should undertake to supply all the documents including a complete system description, operation and service manuals, and full description of hardware and software used. Soft copies of all manuals including operations, maintenance, and service manual along with a drawing of main equipment and all its accessories should be provided.

4.4 Safety Requirements:

18. The instrument must be safe to operate at normal electrical and environmental conditions.
19. Necessary provisions shall be given to safeguard the calorimeter and computer from power fluctuations and other electrical/shock bursts.

4.5 Optional Requirements:

- i. Four (4) compatible internal mixing devices and mixer motor controllers must be provided as an optional add-on.

5 Section 5: Technical Bid

The technical bid should furnish all requirements of the tender along with all annexures in this Section 5 and submitted to:

*Chairperson's Office,
C/O The Chairperson,
Department of Civil Engineering,
Indian Institute of Science,
Bengaluru, Karnataka - 560 012
Contact: +91(80)2293 2323
chair.civil@iisc.ac.in
Attn: Dr. Keshav Bharadwaj Ravi.*

Soft copies of the technical documentation, in addition to the hard copies in the sealed envelope, may be emailed to: Dr. Keshav Bharadwaj Ravi, keshavbr@iisc.ac.in

5.1 Annexure 1: Details of the Bidder

The bidder must provide the following mandatory information & attach supporting documents wherever mentioned:

Details of the Bidder

Sl. No.	Items	Details
1	Name of the Bidder	
2	Nature of Bidder (Attach attested copy of Certificate of Incorporation/ Partnership Deed)	
3	Registration No/ Trade License, (attach attested copy)	
4	Registered Office Address	
5	Address for communication	
6	Contact person- Name and Designation	
7	Telephone No	
8	Email ID	
9	Website	
10	PAN No. (attach copy)	
11	GST No. (attach copy)	

(Signature of the Bidder)

(Name)

(Designation and Seal)

(Date)

5.2 Annexure 2: Declaration Regarding Experience

To,
The Chairperson,
Department of Civil Engineering
Indian Institute of Science
Bangalore – 560012, India

Ref: Tender No: CiE/2024-25/KBR/01

Dated: dd-mmm-yyyy

Subject: Supply and installation of a Isothermal Calorimeter at the Department of Civil Engineering, IISc, Bangalore.

Sir,

I've carefully gone through the Terms & Conditions contained in the above referred tender. I hereby declare that my company / firm has _____ years of experience in supplying and installing isothermal calorimeter systems.

(Signature of the Bidder)

(Printed Name)

(Designation, Seal)

(Date)

5.3 Annexure 3: Declaration Regarding Track Record

To,
The Chairperson,
Department of Civil Engineering
Indian Institute of Science
Bangalore – 560012, India

Ref: Tender No: CiE/2024-25/KBR/01

Dated: dd-mmm-yyyy

Subject: Supply and installation of a Isothermal Calorimeter at the Department of Civil Engineering, IISc, Bangalore.

Sir,

I've carefully gone through the Terms & Conditions contained in the above referred tender. I hereby declare that my company/ firm is not currently debarred / blacklisted by any Government / Semi Government organizations / institutions in India or abroad. I further certify that I'm competent officer in my company / firm to make this declaration.

(Or)

I declare the following:

Sl. No.	Country in which the company is Debarred /blacklisted / case is Pending	Blacklisted / debarred by Government / Semi Government/Organizations /Institutions	Reason	Since when and for how long

(NOTE: In case the company / firm was blacklisted previously, please provide the details regarding period for which the company / firm was blacklisted and the reason/s for the same).

Yours faithfully,

(Signature of the Bidder)

(Name)

(Designation, Seal)

(Date)

5.4 Annexure 4: Declaration for Acceptance of Terms and Conditions

To,
The Chairperson,
Department of Civil Engineering
Indian Institute of Science
Bangalore – 560012, India

Ref: Tender No: CiE/2024-25/KBR/01
Dated: dd-mmm-yyyy

Subject: Supply and installation of a Isothermal Calorimeter at the Department of Civil Engineering, IISc, Bangalore.

Sir,

I've carefully gone through the Terms & Conditions as mentioned in the above referred tender document. I declare that all the provisions of this tender document are acceptable to my company. I further certify that I'm an authorized signatory of my company and am, therefore, competent to make this declaration.

Yours faithfully,

(Signature of the Bidder)

(Name)

(Designation, Seal)

(Date)

5.5 Annexure 5: Details of Items Quoted

Details of items quoted:

- a. Company Name
- b. Product Name
- c. Part / Catalogue number
- d. Product description / main features
- e. Detailed technical specifications
- f. Remarks

Instructions to bidders:

1. Bidder should provide technical specifications of the quoted product/s in detail.
2. Bidder should attach product brochures along with technical bid.
3. Bidders should clearly indicate compliance or non-compliance of the technical specifications provided in the tender document. The technical proposal should contain a technical compliance table with 5 columns:
 - i. The first column must list the technical requirements, in the order that they are given in the technical requirement below.
 - ii. The second column should provide specifications of the instrument against the requirement. Please provide quantitative responses wherever possible.
 - iii. The third column should describe your compliance with a “Yes” or “No” only. Ensure that the entries in column two (2) and column three (3) are consistent.
 - iv. The fourth column should state the reasons/explanations/context for deviations, if any.
 - v. The fifth column can contain additional remarks. Vendors can use this opportunity to highlight technical features, qualify response of previous columns, or provide additional details. Vendors can also use this opportunity to compare your solution with that of your competitors or provide details as requested in the technical requirements table below.

6 Section 6: Commercial Bid

The commercial bid should be furnished with all requirements of the tender with supporting documents as shown below:

Sl. No.	Description	Cat. Number	Quantity	Unit Price	Subtotal
1.	Essential items noted in technical specification				
1. a	... (details of essential items, e.g. <i>isothermal calorimeter</i>)				
1. b	...				
2.	Optional items noted in the technical specification				
2. a	... (details of optional items, e.g. <i>internal mixers</i>)				
2. b	...				
3.	Accessories for operation and installation				
4.	All items, consumables, spares and software to be supplied locally				
5.	Warranty (3 years)				
6.	Extended warranty after initial 3 years (2 years; cost per year should be the unit price and number of years should be the quantity)				
7.	AMC after expiry of initial 3 year warranty period (2 years; cost per year should be the unit price and number of years should be the quantity)				

8.	Cost of Insurance and Airfreight				
9.	CIP/CIF IISc, Bengaluru				

Any additional items:

Sl. No.	Description	Cat. Number	Quantity	Unit Price	Subtotal
10.					

Addressed to:
The Chairperson,
Department of Civil Engineering
Indian Institute of Science (IISc),
CV Raman Road, Bangalore 560012

7 Section 7: Checklist

(This should be enclosed with technical bid- Part A)

The following items must be checked before the Bid is submitted.

[1] Sealed Envelope “Part A”: Technical Bid

1. Section 5- Technical Bid (each page signed by the authorized signatory and sealed) with the below annexures:
 - a. Annexure 1: Bidders details
 - b. Annexure 2: Declaration regarding experience
 - c. Annexure 3: Declaration regarding track record
 - d. Annexure 4: Declaration for acceptance of terms and conditions
 - e. Annexure 5: Details of items quoted
2. Copy of this tender document duly signed by the authorized signatory on every page and sealed.

[2] Sealed Envelope “Part B”: Commercial Bid

1. Section 6: Commercial Bid

Your quotation must be submitted in two envelopes: Technical Bid (Envelope A) and Commercial Bid (Envelope B) super scribing on both the envelopes with Tender No. and due date and both of these in sealed covers and put in a bigger cover which should also be sealed and duly super scribed with Tender No., Tender description & Due Date.