

Domestic tender for Fabrication of a Planetary Ball Milling Machine (Two Grinding Stations) with Control RPM and Time

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Section 1 - Bid Schedule

1	Tender No	CST/IISc/BM-2024
2	Tender Date	12.12.2024
3	Item Description	Planetary Ball Milling Machine (Two Grinding Stations) with Control RPM and Time
4	Tender Type	Two bid system (i) Technical Bid (Part A) (ii) Commercial Bid (Part B)
5	Place of tender submission	Prof. Souradeep Gupta Room 209 Centre for Sustainable Technologies, Indian Institute of Science, Bangalore 560012
6	Last Date & Time for submission of tender	02.01.2025 by 4 pm (3 weeks from the tender date)
7	For further clarification	Prof. Souradeep Gupta Room 209 Centre for Sustainable Technologies, Indian Institute of Science, Bangalore 560012 Email: souradeep@iisc.ac.in

Section 2 – Eligibility Criteria

Prequalification criteria:

1. The Bidder's firm should have existed for a minimum of 3 years. (Enclose Company Registration Certificate)
2. The Bidder should belong to either class 1 or class 2 suppliers distinguished by their "local content" as defined by recent edits to GFR. They should mention clearly which class they belong to in the cover letter
 - a) Class 1 supplier: Goods and services should have local content of equal to or more than 50%.
 - b) Class 2 supplier: Goods and services should have local content of equal to or more than 20 % and less than 50%.
3. Purchase preference as defined by the recent edits to GFR (within the "margin of purchase preference") will be given to the Class-1 supplier.
4. The bidder should sign and submit the declaration for Acceptance of Terms and Conditions as per -Annexure 4.
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 has to be given as per Annexure 3.

Section 3 – Terms and Conditions

A) Submission of Tender:

1. All documentation in the tender should be in English.
2. Tender should be submitted in two envelopes (two bid system).
 - a. Technical Bid (Part-A) – Technical bid consisting of all technical details and check list for conformance to technical specifications. The proposal should contain a compliance table with 4 columns in addition to the ones in the technical requirements table that has been included with this RFQ below. The compliance table should include all the items in the same order and format. The first column should describe your compliance in a “Yes” or “No” response. If “No” the second column should state the extent of deviation. The “third” column should state the reasons for the deviation if any. The fourth column can be used to compare your tool with that of your competitors or provide details as requested in the technical requirements table below. (suppliers who include any indication of prices in the technical bid will be automatically disqualified).
 - 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 the tender, and other commercial terms and conditions.
 - c. The technical proposal should contain a **technical compliance table with 4 columns**. The first column must list the technical requirements and other requirements, in the order that they are mentioned below. The second column should provide specifications of the instrument against the requirement (please provide quantitative responses wherever possible). The third column should describe your compliance with a “Yes” or “No” only. Ensure that the entries in column 2 and column 3 are consistent. The fourth column can contain additional remarks. You can use this opportunity to highlight technical features, qualify responses of previous columns, or provide additional details.
3. The technical bid and price bid should each be placed in separate sealed covers, superscripting 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 superscripted with the Tender No, Tender Description & Due Date.
4. The SEALED COVER superscribing tender number / due date & should reach Prof. **Souradeep Gupta, Room 209, Centre for Sustainable Technologies (next to Sri Maramma Temple Gate), Indian Institute of Science, Bangalore – 560012**, India on or before the due date mentioned in the tender notice. In case the 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.
5. All queries are to be addressed to the person identified in “Section 1 – Bid Schedule” of the tender notice.
6. 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).
7. If the price is not quoted in the Commercial Bid as per the format provided in the tender document the bid is liable to be rejected.
8. 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.
9. Incomplete bids will be summarily rejected.
 10. The quote should come only from an Indian Original Equipment Manufacturer (OEM) or their Indian authorized distributor.
 11. The quotations should be on FOR-IISc Bangalore basis in INR only.
 12. Bidders offering imported products will fall under the category of non-local suppliers.

They cannot claim themselves as Class-1 local suppliers/Class-2 local suppliers by claiming services such as transportation, insurance, installation, commissioning, training, and other sales service support like AMC/CMC, etc., as local value addition.

13. MSMEs can seek an exemption to some qualification criteria. IISc follows GFR2017 for such details

B) Cancellation of Tender:

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

- a. To accept OR reject the 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.

C) Validity of the Offer:

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

D) Evaluation of 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. 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, optional items, recommended spares, warranty, annual maintenance contract.

E) Pre-requisites:

The bidder will provide the prerequisite installation requirement of the equipment along with the technical bid.

F) Warranty:

The complete system is to be under warranty period of minimum **4 years** including free supply of consumables, spare parts, and data analysis software from the date of functional installation. If the instrument is found to be defective, it has to be replaced or **rectified at the cost of the bidder within 7 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.

G) Annual Maintenance Contract:

An annual maintenance contract for 4 years post warranty should be provided on completion of the warranty period. If not possible, ample justification is needed.

H) Purchase Order:

1. The order will be placed on the bidder whose bid is accepted by IISc based on the terms & conditions mentioned in the tender document.
2. The quantity of the items in the 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.

I) Delivery, Installation and Training:

The bidder shall provide the lead time to delivery, installation and made functional at IISc, Bangalore from the date of receipt of the purchase order. **Shipment of the machine, delivery, unloading and installation are within the scope of the successful bidder.** The system should be **delivered, installed, and made functional within 45 days (1.5 months) from the date of receipt of the purchase order or 28 February whichever is earlier.** 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 the entire system by the IISc, Bangalore shall be taken as the start of the warranty period. No partial shipment is allowed. The bidder should also arrange for technical training for the local facility technologists and users.

J) Payment Terms:

The payment will be through bank transfer after successful delivery, installation and training.

K) 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.

L) 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.

M) General:

1. All amendments, time extensions, 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 the 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. Any information furnished by the bidder found to be incorrect, either immediately or at a later date, would render the bidder liable to be debarred from tendering/taking up of work in IISc, Bangalore.
6. The selected vendor must register with IISc (free registration) if not already registered. As per the purchase policy, purchase orders can be raised only to registered vendors. Registration can be done at the following link: <https://hellovendor.iisc.ac.in>
Instructions are given here: <https://digits.iisc.ac.in/vip/>

Section 4 – Technical Specifications

Fabrication of a planetary Ball Milling Machine (Two Grinding Stations) with Control RPM and Time

S.No	Specification	Essential/Optional
1.	Planetary Ball Mill (Two Grinding Stations) - Stainless Steel pots that should be suitable for grinding powders/solids of medium to high hardness.	Essential
2.	Planetary Ball Mill Bench top model suitable for grinding the Soft, Hard, Brittle, Fibrous - dry or wet, Hard, Medium Hard into powder form in both wet and dry conditions	Essential
3.	LED touchscreen display or similar with programmable process parameters including milling speed, duration, pause time, resume etc. The control panel should show the r.p.m, on-time, off-time, sunwheel speed etc. The machine should auto-switch-off once the set grinding duration is over.	Essential
4.	Portable Benchtop set-up with weight not exceeding 150 kg. If any deviation is there, this must be communicated to IISc before delivery.	Essential
5.	Feed Size = < 20mm. The feed may be powder materials (clays, cements, activated carbon) or chunks of steel slags, iron-ore tailing etc.	Essential
6.	Expected maximum final fineness to be 90% of the particles < 1.0 μm / 0.1 μm (< 100 nm for colloidal grinding)	Essential
7	Two Grinding Station with volume of 1000 ml each. One or both the stations will be operated simultaneously	Essential
8	100 - 700 RPM/min Grinding speed (RPM) or better. Higher speeds without compromising the safety will be preferred. [Safety is of paramount importance to IISc. The bidder must ensure that the jar lids and other parts of the machine are adequately stable to avoid excessive vibrations and heating up]	Essential
9.	Power supply: Single phase, 220/240 V. Any special need for power supply shall be communicated before shipment of the machine.	Essential
10	Effective sun wheel diameter to be greater than 260 mm	Essential
11	Nature of samples could be Bulk solid samples of irregular shape, Liquid, Powder, Pellets.	Essential
12	The ball mill with Controls and display must be equipped with a precise control of RPM within an allowable variation of ± 1 rpm. The machine should preferably have a control and display system to set the rpm and time and monitor the same during the grinding operation. The speed control must allow to change RPM s at intervals of 1 rpm.	Essential
13	Grinding Jars must be Multi –Safety with equipped with Safe Closure Device &Aeration lids	Essential
14	The machine must not be overheated during the grinding operation. In a continuous run, the milling operation may run for 8 – 10 hours. The turnaround time between two consecutive grinding operations may be as short as 15 minutes.	Essential
15	Cooling fans/exhaust fans are provided for ventilation and mitigate any unforeseen temperature rise during grinding.	Essential
16	Robust clamping and locking system for the jars must be provided with all accessories. Protection against overloading and overheating shall be provided.	Essential

17	The machine software/interface must allow saving of at least 10 pre-designed programs/SOP s and using them at a future date.	Essential
26	Noise Level should be preferably ≤ 70 dB	Essential

A. Accessories

S. No.	Specification	Essential/Optional
1.	Stainless steel/agate balls of large size, medium size and small size must be provided.	Essential
2.	Gaskets, screwdrivers for locking/unlocking and other relevant accessories shall be provided.	Essential

B. Training and demonstration

Training on machine usage (hardware and software) must be demonstrated by the successful bidder at the bidder's cost. The bidder must conduct the training and demonstration at the delivery site at IISc.

Section 5- Technical Bid

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

Prof. Souradeep Gupta,
Room 209
Centre for Sustainable Technologies (Near
Maramma Temple Gate)
Indian Institute of Science
Bangalore – 560012, India

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, Seal

Date:

Annexure-2:

Declaration regarding experience

To,
Prof. Souradeep Gupta, Room 209
Centre for Sustainable Technologies (Near Maramma Temple Gate)
Indian Institute of Science
Bangalore – 560012, India

Ref: Tender No: XXXXXXXXX

Dated: XXXXX

Supply and installation of Single Photon Detector Module at CeNSE, 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 this item.

(Signature of the Bidder)

Printed Name

Designation, Seal Date:

Annexure-3:

Declaration regarding track record

To,
Prof. Souradeep Gupta, Room 209
Centre for Sustainable Technologies (Near Maramma Temple Gate)
Indian Institute of Science
Bangalore – 560012, India

Ref: Tender No: XXXXXXX
Dated: XXXXX

Supply and installation of Single Photon Detector Module at CeNSE, 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:

Annexure – 4:

Declaration for acceptance of terms and conditions

To,
Prof. Souradeep Gupta,
Room 209
Centre for Sustainable Technologies (Near Maramma Temple Gate)
Indian Institute of Science
Bangalore – 560012, India

Ref: Tender No: XXXXXX

Dated: XXXX

Supply and installation of Single Photon Detector Module at CeNSE, 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:

Annexure – 5:

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.

Section 6 – Commercial Bid

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

S.No	Description	Cat. Number	Quantity	Unit Price	Sub total
1.	Essential items noted in the technical specification				
1.a	... (details of essential items)				
1.b	...				
2.	Optional items noted in the technical specification				
2.a	... (details of essential items)				
2.b	...				
3.	Accessories for operation and installation				
4.	All Consumables, spares and software to be supplied locally				
5.	Warranty (4 years)				
6.	AMC 4 years beyond warranty				

Any additional items

S.No	Description	Cat. Number	Quantity	Unit Price	Sub total

Addressed to

The Chairperson,
Prof. Souradeep Gupta,
Room 209
Centre for Sustainable Technologies (Near
Maramma Temple Gate)
Indian Institute of Science
Bangalore – 560012, India

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 “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 clean 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 Envelop “B”: Commercial Bid

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.