



INDIAN INSTITUTE OF TECHNOLOGY, KANPUR
GT ROAD, KALYANPUR, KANPUR – 208016
UTTAR PRADESH, INDIA

TENDER REFERENCE NO. : IITK/PHY/CS/2020/01

BID SUBMISSION END DATE- 07.02.2020

TENDER DOCUMENTS

FOR

“Purchase of Turbo molecular pump with rotary pump with gauge and control unit with all accessories compatible for PLD”

BID DOCUMENT

Online bids (Technical & Financial) from eligible bidders which are valid for a period of 90 days from the date of Technical Bid opening (i.e. 10.02.2020) are invited for and on behalf of the Assistant Registrar, IIT Kanpur for “**Purchase of Turbo molecular pump with rotary pump with gauge and control unit with all accessories compatible for PLD**”.

Name of Work	Purchase of Turbo molecular pump with rotary pump with gauge and control unit with all accessories compatible for PLD
Date of Publishing	17.01.2020 (11:00 hrs)
Clarification Start Date and Time	17.01.2020 (11:00 hrs)
Clarification End Date and Time	07.02.2020 (16:00 hrs)
Queries (if any)	No queries will be entertained after clarification end date and time
Bid Submission Start Date	17.01.2020 (11:00 hrs)
Last Date and time of uploading of Bids	07.02.2020 (16:00 hrs)
Last Date and time of submitting , EMD and other documents at IIT Kanpur (if any)	NA
Date and time of opening of Technical Bids	10.02.2020 (16:00 hrs)
Date and time of opening of Financial Bids	Will be separately notified for Technically shortlisted/qualified bidders

Interested parties may view and download the tender document containing the detailed terms & conditions from the website <http://eprocure.gov.in/eprocure/app>

(The bids have to be submitted online in electronic form on www.eprocure.gov.in only. No physical bids will be accepted.)

INSTRUCTION FOR ONLINE BID SUBMISSION

The bidders are required to submit soft copies of their bids electronically on the Central Public Procurement (CPP) Portal ie <http://eprocure.gov.in/eprocure/app> , using valid Digital Signature Certificates. The instructions given below are meant to assist the bidders in registering on the CPP Portal, prepare their bids in accordance with the requirements and submitting their bids online on the CPP Portal.

REGISTRATION

- (i)** Bidders are required to enroll on the e-Procurement module of the Central Public Procurement Portal (URL:<https://eprocure.gov.in/eprocure/app>) by clicking on the link “Online Bidder Enrolment” option available on the home page. **Enrolment on the CPP Portal is free of charge.**
- (ii)** During enrolment/ registration, the bidders should provide the correct/ true information including valid email-id & mobile no. All the correspondence shall be made directly with the contractors/ bidders through email-id provided.
- (iii)** As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts.
- (iv)** For e-tendering possession of valid Digital Signature Certificate (Class II or Class III Certificates with signing key usage) is mandatory which can be obtained from SIFY /nCode/eMudra or any Certifying Authority recognized by CCA India on eToken/ SmartCard.
- (v)** Upon enrolment on CPP Portal for e-tendering, the bidders shall register their valid Digital Signature Certificate with their profile.
- (vi)** Only one valid DSC should be registered by a bidder. Bidders are responsible to ensure that they do not lend their DSCs to others which may lead to misuse and should ensure safety of the same.
- (vii)** Bidders can then log into the site through the secured login by entering their userID/ password and the password of the DSC/ eToken.

SEARCHING FOR TENDER DOCUMENTS

- 1) There are various search options built in the CPP Portal to facilitate bidders to search active tenders by several parameters. These parameters could include Tender ID, organization name, location, date, value, etc. There is also an option of advanced search for tenders, wherein the bidders may combine a number of search parameters such as organization name, form of contract, location, date, other keywords, etc., to search for a tender published on the CPP Portal.
- 2) Once the bidders have selected the tenders they are interested in, they may download the required documents / tender schedules. These tenders can be moved to the respective ‘My Tenders’ folder. This would enable the CPP Portal to intimate the bidders through SMS / e-mail in case there is any corrigendum issued to the tender document.
- 3) The bidder should make a note of the unique Tender ID assigned to each tender, in case they want to obtain any clarification / help from the Helpdesk.

PREPARATION OF BIDS:

- (i) For preparation of bid Bidders shall search the tender from published tender list available on site and download the complete tender document and should take into account corrigendum if any published before submitting their bids.
After selecting the tender document same shall be moved to the 'My favourite' folder of bidders account from where bidder can view all the details of the tender document.
- (ii) Bidder shall go through the tender document carefully to understand the documents required to be submitted as part of the bid. Bidders shall note the number of covers in which the bid documents have to be submitted, the number of documents – including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid.
- (iii) Any pre-bid clarifications if required, then same may be obtained online through the tender site, or through the contact details given in the tender document.
- (iv) Bidders should get ready in advance the bid documents in the required format (PDF/xls/rar/dwf/jpg formats) to be submitted as indicated in the tender document/schedule. **Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned document.**
- (v) Bidders can update well in advance, the documents such as experience certificates, annual report, PAN, EPF & other details etc., under "My Space/ Other Important Document" option, which can be submitted as per tender requirements. This will facilitate the bid submission process faster by reducing upload time of bids.

SUBMISSION OF BIDS:

- (i) Bidder should log into the site well in advance for bid submission so that he/ she upload the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay.
- (ii) Bidder should prepare the EMD as per the instructions specified in the NIT/ tender document. The details of the DD/BC/BG/ others physically sent, should tally with the details available in the scanned copy and the data entered during bid submission time. Otherwise the uploaded bid will be rejected.
- (iii) While submitting the bids online, the bidder shall read the terms & conditions (of CPP portal) and accepts the same in order to proceed further to submit their bid.
- (iv) Bidders shall select the payment option as offline to pay the EMD and enter details of the DD/BC/BG/others.
- (v) Bidder shall digitally sign and upload the required bid documents one by one as indicated in the tender document.
- (vi) Bidders shall note that the very act of using DSC for downloading the tender document and uploading their offers is deemed to be a confirmation that they have read all sections and pages of the tender document without any exception and have understood the complete tender document and are clear about the requirements of the tender document.
- (vii) Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned document. For the file size of less than 1 MB, the transaction uploading time

will be very fast.

- (viii) **If price quotes are required in XLS format, utmost care shall be taken for uploading Schedule of quantities & Prices and any change/ modification of the price schedule shall render it unfit for bidding.**

Bidders shall download the Schedule of Quantities & Prices i.e. Schedule-A, in XLS format and save it without changing the name of the file. Bidder shall quote their rate in figures in the appropriate cells, thereafter save and upload the file in financial bid cover (Price bid) only.

If the template of Schedule of Quantities & Prices file is found to be modified/corrupted in the eventuality by the bidder, the bid will be rejected and further dealt as per provision of clause no 23.0 of ITB including forfeiture of EMD.

The bidders are cautioned that uploading of financial bid elsewhere i.e. other than in cover 2 will result in rejection of the tender.

- (ix) Bidders shall submit their bids through online e-tendering system to the Tender Inviting Authority (TIA) well before the bid submission end date & time (as per Server System Clock). **The TIA will not be held responsible for any sort of delay or the difficulties faced during the submission of bids online by the bidders at the eleventh hour.**
- (x) After the bid submission (i.e. after Clicking “Freeze Bid Submission” in the portal), the bidders shall **take print out of system generated acknowledgement** number and keep it as a record of evidence for online submission of bid, which will also act as an entry pass to participate in the bid opening.
- (xi) Bidders should follow the server time being displayed on bidder’s dashboard at the top of the tender site, which shall be considered valid for all actions of requesting, bid submission, bid opening etc., in the e-tender system.
- (xii) All the documents being submitted by the bidders would be encrypted using PKI (Public Key Infrastructure) encryption techniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of bid opening. The confidentiality of the bids is maintained using the secured Socket Layer 128 bit encryption technology.

ASSISTANCE TO BIDDERS:

- (i) Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender or the relevant contract person indicated in the tender. The contact number for the helpdesk is 0512-259-4768 between 10:30 hrs to 17:00 hrs.
- (ii) Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24X7 CPP Portal Helpdesk. The 24 x 7 Help Desk Number 0120-4200462, 0120-4001002 and 0120-4001005. The helpdesk email id is support-eproc@nic.in

INSTRUCTION FOR e-PROCUREMENT

1. PREPARATION AND SUBMISSION OF BIDS :

- a. The detailed tender documents may be downloaded from <http://eprocure.gov.in/eprocure/app> till the last date of submission of tender. The Tender may be submitted online through CPP Portal <http://eprocure.gov.in/eprocure/app>
- b. The bidder should submit the bid online in two parts viz. Technical Bid and Financial Bid. Technical Bid should be upload online in cover 1 and Financial Bid in “.Xls” should be upload online in cover-2

2. SUBMISSION OF THE BID : All interested eligible bidders are requested to submit their bids online on CPP Portal: <http://eprocure.gov.in/eprocure/app> as per the criteria given in this document:

- a. Technical Bid should be upload online in cover-1.
- b. Financial Bid should be upload online in cover-2

Both Technical and Financial Bid covers should be placed online on the CPP Portal (<http://eprocure.gov.in/eprocure/app>).

3. TECHNICAL BID: Signed and Scanned copies of the Technical bid documents as under must be submitted online on CPP Portal: <http://eprocure.gov.in/eprocure/app>.

a) **List of Documents to be scanned and uploaded (Under Cover-1) within the period of bid submission:-**

- i. Scanned copy of Bank details. (Bank details of principal supplier in case of Import shipments)
- ii. Scanned copy of work experience.
- iii. Scanned copy of certificate of GST. (GSTIN of Indian Agent in case of Import Shipments)
- iv. Scan copy of tender acceptance letter.
- v. Scanned copy of specifications or brochures (if any).
- vi. Scanned copy of other document mentioned in tender document (if any)

b) **For Import Shipments – Shipping Terms Ex-Works/FOB are preferred.**

NOTE - no indication of the rates/amounts be made in any of the documents submitted with the TC-BID.

4. **Financial Bid**

- a. The currency of all quoted rates shall be Indian Rupees/USD/Euro.
- b. In preparing the financial bids, bidders are expected to take into account the requirements and conditions laid down in this Tender document. The financial bids should be uploaded online as per the specified “.Xls” format i.e. Price Bid Excel sheet

attached as '**.Xls**' with the tender and based on the scope of work, service conditions and other terms of the Tender document. It should include all costs associated with the Terms of Reference/Scope of Work of the assignment.

- c. The Financial Proposal should be inclusive of all applicable taxes, duties, fees, levies, and other charges imposed under the applicable laws. The rates quoted in the Tender are inclusive of all applicable taxes, duties etc. **except service tax**. The service tax component shall be re-immersible by the department after receipt of paid challans etc. if applicable.

5. Last Date for Submission of Tender:

- a. Online bids complete in all respects, must be submitted on or before the last date and time specified in the schedule of events.
- b. The IIT, Kanpur may, at its own discretion, alter/extend the last date for submission of tenders.

6. Bid Validity

- a. All the Bids must be valid for a period of 90 days from the last date of submission of the tender for execution of Contract. However, the quoted rates should be valid for the initial/ extended period of the Contract from the effective date of the Contract. No request will be considered for price revision during the original Contract period.
- b. A bid valid for a shorter period shall be declared as non-responsive.
- c. In exceptional circumstances, prior to expiry of the original time limit, the IIT may request the bidders to extend the period of validity for a specified additional period beyond the original validity of 90 days. The request and the bidders' responses shall be made in writing. The bidders, not agreeing for such extensions will be allowed to withdraw their bids without forfeiture of their Bid Security.

7. Modification / Substitution/ Withdrawal of bids:

- a. No Bid shall be modified, substituted or withdrawn by the Bidder after the Bid's due Date.
- b. Any alteration/ modification in the Bid or additional information supplied subsequent to the Bid's due Date, unless the same has been expressly sought for by the Authority, shall be disregarded.

8. Rejection of the Bid: The bid submitted shall become invalid and tender fee shall not be refunded if:-

- a. The bidder is found ineligible.
- b. The bidder does not upload all the documents as stipulated in the bid document.

Tender document

Department of Physics
Indian Institute of Technology Kanpur
Kanpur (UP) 208016 India

Enquiry date: Jan 17, 2020

Enquiry No: IITK/PHY/CS/2020/01

Online quotations are invited for Turbo molecular pump with rotary pump with gauge and control unit with all accessories compatible for PLD. The detailed specification of the Turbo molecular pump with rotary pump with gauge and control unit with all accessories compatible for PLD is described below.

Dr. Chanchal Sow

Department of Physics
Indian Institute of Technology Kanpur
Kanpur 208 016, India

Specification, terms and conditions for the Turbo molecular pump with rotary pump with gauge and control unit with all accessories compatible for PLD:

(a) Specifications of Turbo Molecular pump (260 lps):

- | | |
|---|---|
| 1. Inlet connection Flange | :DN 100 CF-F |
| 2. Outlet Flange | :DN 16 ISO KF |
| 3. Nominal Pumping Speed | : ≥ 260 Lit/s for Nitrogen,
: ≥ 255 Lit/s for Argon and Helium
: ≥ 220 Lit/s for Hydrogen |
| 4. Compression ratio | : $\geq 1 \times 10^{11}$ for Nitrogen / Argon
: $\geq 1 \times 10^8$ for Helium |
| 5. Maximum backing vacuum pressure for N ₂ | : ≈ 20 mbar |
| 6. Ultimate pressure | : $< 5 \times 10^{-10}$ mbar |
| 7. Rotation Speed | : Around 60,000 \pm 2 % rpm |
| 8. Startup time | : ≤ 2 min |
| 9. Cooling Method | : Air Cooled, Air cooling kit to be offered |
| 10. Operating Orientation | : Any |
| 11. Turbo Pump controller | : Pump must be supplied with its controller and should have variable rotational speed (35–100%) option. |
| 12. Display for above Controller | : Display Rotational Speed in both rpm & Hz, Current and Error History and TMP information. Option to connect and monitor reading of a vacuum gauge along with turbo pump speed simultaneously. |
| 13. Protection Screen | : Protection screen at inlet flange is required to Prevent a pump rotor from any small objects /screws, falling through inlet |
| 14. Bearing | : Hybrid (Magnetic bearing on the High vacuum side and |

15. Protection category : ceramic ball bearing on the fore line side)
: IP 54
16. Quantity : one set

(b) Specifications for Double Stage Rotary Vane Pump.

- 1) Quantity: two sets
- 2) Pumping speed: ≥ 9 m³/h at 50 Hz.
- 3) Inlet flange connection: DN 16 ISO-KF
- 4) Ultimate pressure: 0.003 mbar without gas ballast
- 5) sound pressure level without gas ballast at 50 Hz: < 55 dB(A)
- 6) Forced oil lubricated bearings.
- 7) Motor to pump coupling: Magnetic coupling.
- 8) Integrated with high speed hydraulically controlled high vacuum safety valve.
- 9) Oil filling capacity: ≤ 0.5 liter.
- 10) Oil mist filter and oil return unit should be quoted.

(c) Specifications for Full Range Gauge and Controller:

1. Vacuum Measuring Gauge with controller: Qty 1 set

(a) One unit of Full range vacuum Gauge: Qty 1 No.

- Flange: DN 40 CF-F.
- Measurement Range: 1000 mbar to 1×10^{-9} mbar
- Necessary sensor cable of 3 meters length

(b) Single channel gauge display and control unit for item (a) above: Qty: 1 No.

- Operating voltage: 220-240 VAC, 50 Hz
- Mains cable for the gauge display control unit
- Interface: USB
- Safety: CE, UL

(d) Specifications for the Accessories:

1. Corrugated Hose, DN 16 ISO-KF Stainless steel, 1000 mm-1 No
2. Centering Ring with O-Ring, DN 16 ISO-KF - 4 Nos.
3. Clamping Ring, DN 10 / 16 ISO-KF -4 Nos.
4. Fore-vacuum safety valve DN 16 ISO KF, 230V AC for safety against backflow during a power failure.
5. Copper Gasket, DN 40 CF OFHC Copper, 10 pieces
6. Copper Gasket, DN 100 CF OFHC Copper, 10 pieces
7. Hexagon Screw Set, DN 40 CF Stainless steel, M6x50, 6 pieces
8. Hexagon Screw Set, DN 100 CF, Stainless Steel, M8x70, 16 pieces

Rotary Vane Vacuum Pump and Vacuum Gauge and accessories as above should be quoted for smooth operation of the Turbo pumps to be used in Pulsed Laser Deposition (PLD).

After Sale Service Facility: - In case of break down, complete repairs of the Pump, viz. bearing replacement, motor part replacement, complete cleaning of the turbo pump etc. should be possible at site. The vendor should have Service Centre/Facility and complete infrastructure within India to handle complete repairs of the pump, and availability of critical spares off the shelf from Indian office.

Important: In your technical bid, against each of the specs points mentioned above (for Turbo pump, rotary pump, gauges and accessories), please provide your response by indicating the specs for your proposed model. It is not sufficient to only mention that the model complies with all the points. Such bids will be

disqualified. Only for accessories you can mention whether you can provide them or not. Therefore, you must mention the relevant specs of your proposed model against each point in the technical bid and how your system complies with it. The technical bid shouldn't disclose in anyway any financial information. Any disclosure of financial information in the technical bid will lead to immediate disqualification of the bid from the tendering process.

Please include a sheet about the total turnover of your company and details about your company. To give an idea about the standing of your company in the market related to the specific product I am ordering. The company should give detailed information of the delivery period of the item ordered. Please note final decision will be based on market presence, stature of the company, after sales service and customer feedback.

Please ensure competitive pricing with discounts in your financial bid for the model recommended in the technical bid. Final decision will be based on technical and financial bid and market reputation and standing.

Please provide your response against each of the points mentioned below.

Proprietary technology	If your turbo pump is based on a proprietary technology, please give details on this aspect as to how it is proprietary in nature A proprietary certificate should be from the principals
Power Supply	230Volt, 50Hz, Single Phase
Manuals	(a) One hard copy of Operating and Maintenance Manual having Electrical/Electronic Circuits diagrams. (b) One soft copy of Operating and Maintenance Manual having Electrical/Electronic Circuits diagrams
Warranty	Standard Warranty should be provided for 1 year. Any extended warranty at no extra cost will be desirable.
Training	Training should be provided by Supplier on user site for at least two days about basic routine maintenance and repair.
Installation and commissioning	Installation and commissioning at User's site free of cost. Installation data like machine size, machine weight, floor space required, total electrical load and other specific requirement should be provided by the supplier.
Company should have supplied turbomolecular pumps to reputed organizations /institutions in India (IITs, IISc, IISERs, Research Institutes) in last 3 to 5 years	Please give names of Institutions, with email ID's of contact persons details. Please note this is essential for your bid to be considered valid.
Information relating to size of the company and market share in India in terms of handling vacuum products	Please do not leave this blank, as this is also a shortlisting criteria.

TENDER ACCEPTANCE LETTER
(To be given on Company Letter Head)

Date: _____

To,

Sub: Acceptance of Terms & Conditions of Tender.

Tender Reference No: _____

Name of Tender / Work: - _____

Dear Sir,

1. I / We have downloaded / obtained the tender document(s) for the above mentioned 'Tender/Work' from the web site(s) namely:

_____ as per your advertisement, given in the above mentioned website(s).

2. I / We hereby certify that I / we have read the entire terms and conditions of the tender documents from Page No. _____ to _____ (including all documents like annexure(s), schedule(s), etc .), which form part of the contract agreement and I / we shall abide hereby by the terms / conditions / clauses contained therein.

3. The corrigendum(s) issued from time to time by your department/ organisation too have also been taken into consideration, while submitting this acceptance letter.

4. I / We hereby unconditionally accept the tender conditions of above mentioned tender document(s) / corrigendum(s) in its totality / entirety.

5. I / We do hereby declare that our Firm has not been blacklisted/ debarred/ terminated/ banned by any Govt. Department/Public sector undertaking.

6. I / We certify that all information furnished by our Firm is true & correct and in the event that the information is found to be incorrect/untrue or found violated, then your department/ organisation shall without giving any notice or reason therefore or summarily reject the bid or terminate the contract, without prejudice to any other rights or remedy including the forfeiture of the full said earnest money deposit absolutely.

Yours Faithfully,
(Signature of the Bidder, with Official Seal)