

INVITATION FOR TENDER FOR SUPPLY OF EQUIPMENT

Sealed tender offers are invited in two separate sealed covers (Technical and Commercial offers) from eligible manufacturers/suppliers or their direct Indian agents for the supply of the following equipment.

Twin-jet automatic electrolytic thinning equipment for the preparation of specimen for Transmission Electron Microscopy

Please send offers, ALONG WITH DESCRIPTIVE CATALOGUE/ BROCHURE. The validity of the bid should be at least four months (120 days) or more from the date of the opening of this tender. Please ensure that your quotation reaches not later than **20.09.2019 at 15:00 Hrs** at the following address:

**Dr. Sujoy Kumar Kar),
Associate Professor, Metallurgical and Materials Engineering Department,
Indian Institute of Technology Kharagpur – 721 302, West Bengal, India**

Earnest money of **Rs. 30,000/-** is to be deposited in the form of Account payee Demand Draft in favour of IIT Kharagpur, payable at Kharagpur, India. Any bid which is not accompanied with an EMD shall be summarily rejected. Earnest money deposited will be forfeited if the tenderer withdraws or amends its tender or impairs or derogates from the tender in any respect within the period of validity of its tender. No interest will be paid on the earnest money of the unsuccessful bidders.

Tender Reference	IIT/SRIC/MME/HVA/SKK/19-20/EQ-3_Jet_Pol,Dated: 12.07.2019
Price of Tender Document	NIL
Last Date and Time for submitting the tender document	20.09.2019 at 15:00 Hrs (Indian time)
Time and Date of Opening of Technical Bids	20.09.2019 at 16:00 Hrs (Indian time)
Place of Opening Tender	Department of Metallurgical and Materials Engineering, Indian Institute of Technology Kharagpur – 721 302, West Bengal, India
Address of Communication	As stated above
Contact Telephone Numbers	+91- 3222 - 282279
E-mail	Sujoy.kar@metal.iitkgp.ac.in

DETAILED TECHNICAL SPECIFICATIONS FOR

Twin-jet automatic electrolytic thinning equipment for the preparation of specimen for Transmission Electron Microscopy

1. Basic Twin-jet electropolishing cell with electrolyte pump and motor, jet assemblies, specimen holder, voltage control and alarm. The polishing cell to be made of electrolyte resistant and should be a separate unit compatible for use inside fume hood.
2. Determination of polishing voltage through built-in automatic scan function.
3. Built-in database with at least 10 methods for the final thinning (of steel, stainless steel, titanium alloys, Aluminum, Aluminum alloys, nickel alloys, tin, molybdenum, zirconium and vanadium, copper and copper alloys). User should be able to save his/her own method as many as 100 or more (generated via scanning of the voltage-current density curve).
4. IR light source and photocell detector for automatic detection and stoppage of thinning process. There should be a light intensity scale shown on the control panel during polishing.
5. Appropriate specimen holder for Pre-thinning along with 2 spares.
6. The unit should be operated on the touch pad and on the backlit graphic display all parameters should be presented. Parameters like current, electrolyte temperature and elapsed thinning time should be displayed while operation. The Control Unit should allow the user to program/change each of the following parameters:-(i) Polishing Voltage, (ii) Polishing Time, (iii) Flow Rate for Electrolyte. The Control Unit should display the complete Voltage-Current Density curve as generated after a Load Simulation or Sample Scan. The control unit should provide the option for continuous or intermittent change in flow rate during operation.
7. Polishing unit should have specimen holder (along with 2 spares) for 3mm diameter and Twin jet for simultaneous thinning from both sides (set of jets with 1mm bore).
8. Supply voltage: 220-240VAC, 1ph, 50Hz
9. Connecting cables and power cord.
10. The unit should be complete in all respect for TEM specimen preparation by electrolyte polishing
11. Consumables (2 Liters of each type) Electrolyte for polishing of steel, stainless steel, titanium alloys, Aluminum, Aluminum alloys, nickel alloys, tin, molybdenum, zirconium and vanadium, copper and copper alloys.
12. Facility for cooling using both recirculating chiller and ice bath/Liquid Nitrogen bath.
13. Bidder should offer Chiller unit (up to -40 deg C) in option.
14. Additional containers for electrolytes compatible for jet polishing unit.
15. Standard model, which is in use at minimum 5 govt organizations in India, should be offered. Standard catalogue submitted with the bid should be available for verification of manufacturers website. Documentary evidence(PO/performance/installation certificate etc) regarding previous supply should be submitted with the bid.
16. During Technical Evaluation, if desired by technical committee, the bidder should demonstrate the quoted model and explain all various features as mentioned in tender.

NOTE / 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 / detailed depiction on company website.

B) The company should be an Original equipment manufacturer of the said equipment, please attach exclusive authorization certificate specific for this tender with quote without which bid will be rejected. This criterion is proof of accountable service support by vendor & OEM.

C) Machine should come with 3-year warranty from date of installation and commissioning.

D) AMC for 3-year post warranty is to be quoted for the system.

ADDITIONAL DETAILS:

- The supplier of the instrument must confirm in writing that the spares for the entire instrument will be available for a period of at least 10 years after the installation of the instrument. The supplier should address any issue within 48 hours of reporting and a service engineer should attend within 1 week of reporting during service.
- Free of charge training in equipment operation and maintenance by the certified company engineers at IIT Kharagpur.

COMPLIANCE STATEMENT

- The supplier must submit a table indicating the compliance of the features of the model of the equipment being quoted with those given in the indent.
- Features not matching – must be clearly indicated.
- Additional features and features in the quoted equipment which are better than those in the tender – may be clearly explained.
- Compliance statement needs to be provided by vendors clearly specifying COMPLY/DO NOT COMPLY for all items with REMARKS. These will be checked against the catalogue for the said model. Any discrepancy will lead to rejection of the bid.

NOTE TO THE BIDDERS REGARDING TECHNICAL BID:

- Price related information to be given only in price bid cover, not in the technical bid cover.
- If any feature not mentioned/left over in the technical bid by the bidder, the same will be presumed to be absent without any further references to the bidder/vendor. No further discussion with the bidder can be entertained.
- All the quoted technical features must be demonstrated after installation with quoted precision. Otherwise, the equipment must be returned to factory at suppliers cost and the money paid, if any, for the equipment by IITKGP should be paid back.
- Mention clearly the service, installation and personnel training. Provide sufficient information about your after-sale service capabilities/man power and a list of customers possessing similar equipment.
- Equipment Model and make to be mentioned; brochures must be provided along with the technical bid.
- All technical features must be equal to the given IITKGP specification or higher and better than the given specifications. IITKGP specification committee decision will be final for technical specifications.

GENERAL TERMS & CONDITIONS

PLEASE SPECIFICALLY INDICATE THE FOLLOWING POINTS IN YOUR QUOTATIONS AND COMPLY THE TERMS AS MENTIONED HEREUNDER:-

1. TENDERS ARE INVITED COMPLYING THE REQUIREMENT FOR TENDER AS DETAILED IN THE TENDER SPECIFICATION TO BE SUBMITTED IN THE COMPANY'S / FIRM'S LETTERHEAD NEATLY PRINTED / TYPED DULY SIGNED BY AUTHORIZED PERSON WITH THE SEAL OF THE BIDDERS. ALL ENVELOPS CONTAINING THE TENDER SHOULD BE PROPERLY SEALED. SEPARATE ENVELOPS SHOULD BE USED FOR TECHNICAL AND PRICE BID AND INDICATION TO THEIR EFFECT MAY PLEASE BE SUPERSCRIBED ON THE ENVELOP.

THE FOLLOWING DOCUMENTS ARE REQUIRED FROM THE INDIAN AGENTS OF FOREIGN FIRMS:

- 1.1 FOREIGN PRINCIPAL'S PROFORMA INVOICE INDICATING THE COMMISSION PAYABLE TO THE INDIAN AGENT AND NATURE OF AFTER SALES SERVICE TO BE RENDERED BY THE INDIAN AGENT.
- 1.2 COPY OF THE AGENCY AGREEMENT WITH THE FOREIGN PRINCIPAL INDICATING THE NATURE OF AFTER SALES SERVICES, PRECISE RELATIONSHIP BETWEEN THEM AND THEIR MUTUAL INTEREST IN THE BUSINESS.
2. TECHNICAL CATALOGUE/LEAFLET SHOULD BE ENCLOSED WITHOUT FAIL. PROVIDE COMPLIANCE STATEMENT WITH RESPECT TO THE TECHNICAL SPECIFICATIONS MENTIONED ABOVE.
3. PLEASE CONFIRM WHETHER YOU ARE AUTHORISED TO QUOTE ON BEHALF OF YOUR PRINCIPALS AND IF SO, PLEASE ENCLOSE A COPY OF SUCH AUTHORISATION WITH YOUR QUOTATION.
4. THE BIDS MUST BE SUBMITTED BY OEM'S OR OEM SUPPORTED SINGLE VENDORS ONLY WITH ORIGINAL AUTHORIZATION CERTIFICATES FROM THE OEMS.
5. **PRICE BIDS FOR FOREIGN FIRMS:** PRICES ARE TO BE QUOTED ON 'EX-WORKS' DULY PACKED OR ON "FCA/FOB" INTERNATIONAL PORT" BASIS AND ALSO INCLUDING AGENCY COMMISSION PAYABLE TO YOUR INDIAN AGENTS, IF ANY SHOWING CLEARLY THE FOLLOWING BREAK UP:-
 - I) EX-WORKS PRICE
 - II) PACKING & FORWARDING
 - III) FREIGHT
 - IV) ANY OTHER RELEVANT EXPENSES.
 - V) TAXES PAYABLE BY THE INSTITUTE

INSURANCE WILL BE PAID BY OUR INSTITUTE SEPARATELY AND SHOULD NOT FORM PART OF THE QUOTED PRICE.

PRICE BIDS FOR INDIAN FIRMS: PRICES ARE TO BE QUOTED ON F.O.R., IIT KHARAGPUR, ON DOOR DELIVERY BASIS CLEARLY SHOWING THE BREAK UP.

6. **PERIOD OF VALIDITY:** BIDS SHALL REMAIN VALID FOR ACCEPTANCE FOR A PERIOD OF 120 DAYS FROM THE DATE OF OPENING.
7. INDIAN AGENTS ADDRESS AND PERCENTAGE OF AGENCY COMMISSION INCLUDED IN ABOVE F.O.B./EX-WORKS PRICE. (THIS WILL BE PAID TO THE INDIAN AGENTS IN INDIAN RUPEES ONLY AND NOT IN FE). PLEASE ENCLOSE COPY OF AGENCY AGREEMENT ENTERED INTO WITH YOUR PRINCIPALS INDICATING THE NATURE OF AFTER SALES SERVICES OF INDIAN AGENTS, PRECISE RELATIONSHIP & MUTUAL INTEREST IN THE BUSINESS.

8. **MEASUREMENTS/WEIGHT:** NETT/GROSS OF THE CONSIGNMENT. IN CASE OF AN ORDER, YOU SHALL USE AIR WORTHY PACKAGE (AS APPLICABLE) DULY CERTIFIED WITH DOCUMENTS – PLYTO – SANITARY CERTIFICATE (AS PER QUARANTINE ORDER 2003).

9. **SCOPE OF SUPPLY:** SHOULD INCLUDE FREE INSTALLATION AND COMMISSIONING

10. **PAYMENT TERMS FOR FOREIGN FIRMS**

The offer will be made on a single currency and only one PO will be issued for the entire scope of the supply.

A) 90% PAYMENT THROUGH SIGHT DRAFT / FOREIGN DEMAND DRAFT / LC (EXCEPTIONAL CASES) / SWIFT TELE TRANSFER AFTER RECEIPT OF STORE IN GOOD ORDER AND CONDITION AND 10% AFTER SUCCESSFUL INSTALLATION & COMMISSIONING.

B) BANK CHARGES ON LC / SD (WITHIN INDIA APPLICANT ACCOUNT AND OUTSIDE INDIA TO BENEFICIARY ACCOUNT).

PAYMENT TERMS FOR INDIAN FIRMS

A) 100% PAYMENT THROUGH CROSSED ACCOUNT PAYEE CHEQUE / ELECTRONIC TRANSFER AFTER RECEIPT OF STORE IN GOOD ORDER & CONDITION AND SUCCESSFUL INSTALLATION & COMMISSIONING.

B) ENSURE MENTIONING

i) BANK DETAILS OF THE BENEFICIARY, GST NO. AND PAN NUMBER

ii) FULL NAME AND ADDRESS OF THE BENEFICIARY ON WHOM ORDER HAS TO BE PLACED

11. WHETHER ANY EXPORT LICENCE IS REQUIRED FROM YOUR GOVERNMENT, IF SO, PLEASE CONFIRM WITH DETAILS.

12. COUNTRY OF ORIGIN OF THE GOODS IS TO BE MENTIONED.

13. THE INSTITUTE SHALL PROVIDE THE CONCESSIONAL CUSTOMS DUTY AND EXCISE DUTY EXEMPTION CERTIFICATE AS PER GOVT. NOTIFICATION NO. 51/96 CUSTOMS DATED: 23.07.1996 AND CENTRAL EXCISE DUTY EXEMPTION IN TERMS OF GOVT. NOTIFICATION NO. 10/97 – CENTRAL EXCISE DATED: 01.03.1997 AS AMENDED FROM TIME TO TIME.

14. **LIQUIDATED DAMAGES:** THE STORES SHOULD BE DELIVERED / DISPATCHED TO DESTINATION AND READY FOR OPERATION NOT LATER THAN THE DELIVERY DATE SPECIFIED. IF THE SUPPLIER FAILS TO DELIVER ANY OR ALL THE STORES OR PERFORM THE SERVICE BY THE SPECIFIED DATE, LIQUIDATED DAMAGES AT 1% PER MONTH OR PART THEREOF IN RESPECT OF THE VALUE OF STORES WILL BE DEDUCTED FROM THE CONTRACT PRICE SUBJECT TO A MAXIMUM OF 5%. ALTERNATIVELY, THE ORDER WILL BE CANCELLED AND THE UNDELIVERED STORES PURCHASED FROM ELSEWHERE AT THE RISK AND EXPENSE OF SUPPLIER.

15. **PATENT RIGHTS:** THE SUPPLIER SHALL INDEMNIFY THE PURCHASE AGAINST ALL THIRD PARTY CLAIMS OF INFRINGEMENT OF PATENT, TRADEMARK OR INDUSTRIAL DESIGN RIGHTS ARISING FROM USE OF THE GOODS OR ANY PART THEREOF IN INDIA.

16. ONLY THOSE BIDDERS WHO'S BIDS HAVE BEEN TECHNICALLY FOUND ACCEPTABLE WILL ONLY BE INVITED FOR PARTICIPATION IN THE PRICE BID.

17. THOSE BIDDERS WHO DO NOT RECEIVE ANY COMMUNICATION FOR PARTICIPATION IN PRICE BID OPENING MEETING MAY PRESUME THAT THEIR BID HAS NOT BEEN ACCEPTED BY THE INSTITUTE.

18. CONDITIONAL OFFER WILL NOT BE ACCEPTED.

19. LATE TENDERS I.E. TENDER RECEIVED AFTER THE DUE DATE AND TIME OF SUBMISSION AS MENTIONED ABOVE SHALL NOT BE ACCEPTED.

20. BIDDERS TO ENCLOSE THE FOLLOWING DOCUMENTS:-

A) INCOME TAX RETURN (3 YRS) AND LATEST SALES TAX RETURN (GST No.), AND PAN NO.

B) BANKER'S SOLVENCY CERTIFICATE

C) SUMMARY OF AUDITED STATEMENT OF ACCOUNTS FOR THE LAST THREE YEARS TO BE ENCLOSED AND FINANCIAL HIGHLIGHTS AND THE KEY PERFORMANCE DURING THE LAST THREE QUARTERS TO BE ENCLOSED AS PER FORMAT:-

COMPANY'S KEY PERFORMANCE

DESCRIPTION	JAN. TO MARCH	APRIL TO JUNE	JULY TO SEPT.
GROSS REVENUE			
PROFIT BEFORE TAX			
PROFIT AFTER TAX			
RETURN ON INVESTED			
CAPITAL (ROIC)			

D) CUSTOMER SATISFACTION CERTIFICATE FROM ONE SUCH ORGANIZATION IS TO BE ATTACHED WITH THE TECHNICAL BID AND PRICE BID.

E) NAME AND ADDRESS OF MINIMUM THREE CLIENTS TO WHOM SUCH EQUIPMENT HAVE BEEN SUPPLIED SHOULD BE MENTIONED.

21. **WARRANTY / GUARANTEE:** THIS COMPREHENSIVE WARRANTY / GUARANTEE SHALL REMAIN VALID FOR **36 MONTHS** AFTER THE GOODS (OR ANY PORTION THEREOF AS THE CASE MAY BE) HAVE BEEN DELIVERED AND COMMISSIONED TO THE FINAL DESTINATION.

22. THE INSTITUTE DOES NOT BIND ITSELF TO OFFER ANY EXPLANATION TO THOSE BIDDERS WHO'S TECHNICAL BID HAS NOT BEEN FOUND ACCEPTABLE BY THE EVALUATION COMMITTEE OF THE INSTITUTE.

ALL TENDERS (UNLESS OTHERWISE SPECIFIED) ARE TO BE SUBMITTED / HANDED OVER TO

Dr. Sujoy Kumar Kar, Metallurgical and Materials Engineering Department, INDIAN INSTITUTE OF TECHNOLOGY, KHARAGPUR - 721 302 AND ACKNOWLEDGEMENT TO BE OBTAINED.

IMPORTANT

1. IIT Kharagpur authority may accept or reject any or all the bids in part or in full without assigning any reason and does not bind itself to accept the lowest bid. The Institute at its discretion may change the quantity / upgrade the criteria / drop any item or part thereof at any time before placing the Purchase Order.
2. Promptly make arrangements for repair and / or replacement of any damaged item (s) irrespective of settlement of claim.
3. In case of any dispute, the decision of the Institute authority shall be final and binding on the bidders.
4. For any query pertaining to this bid document correspondence may be addressed to **Dr. Sujoy Kumar Kar**, at the address mentioned above.

LAST DATE FOR SUBMISSION OF SEALED BIDS: 20.09.2019

- 1) Please Note that the Institute remains closed during Saturdays & Sundays and all specified government holidays.
 - 2) Fax, e-mail Tender will not be accepted.
 - 3) The General Terms and Conditions as stated above relate to supply of stores / equipment /assets etc. and for specific service other terms and conditions of the Institute will apply.
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