



TENDER DOCUMENT

TENDER FOR THE PURCHASE OF

**Multipurpose Furnace for wet oxidation, dry oxidation, doping
(p-type and n-type) through diffusion, and annealing**

UNDER

TWO BID SYSTEM

NO. 1251-18/PH-10021/CMNF/PS

CHECK LIST

DULY FILLED CHECK LIST TO BE ATTACHED WITH THE TECHNICAL BID

Sl. No.	Particulars	Check Mark
1	Whether EMD / Tender Fees attached?	Yes/ No
2	Whether technical specifications of the quoted equipment attached?	Yes/ No
3	Whether catalog of the equipment attached?	Yes/ No
4	In case of authorized agent/distributor whether certificate/ authorization letter for the same issued by the manufacturer attached?	Yes/ No
5	Whether tender document along with all Annexures (A to G) duly signed & stamped by the authorized signatory attached?	Yes/ No
6	Whether affidavit duly attested by the Oath Commissioner/Executive Magistrate regarding non-black listing of supplier attached?	Yes/ No
7	Whether list of Institutes/Organizations where the quoted model of equipment supplied by the tenderer in India is attached?	Yes/ No
8	Whether split rates of each sub units are quoted?	Yes/ No
9	In case of foreign suppliers quoting directly, whether, the name of Indian agent mentioned?	Yes/ No
10	Whether compliance sheet duly filled in, signed & stamped attached?	Yes/ No
11	Whether warranty certificate duly filled in, signed & stamped attached?	Yes/ No
12	Whether AMC certificate duly filled in, signed & stamped attached?	Yes/ No

List of Annexures

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भारतीय प्रौद्योगिकी संस्थान रोपड़
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NO. 1251-18/PH-10021/CMNF/PS

27/12/2018

Notice Inviting Quotation

IIT Ropar intends to purchase the following equipments. You are, therefore, requested to send your sealed offer in Two Bid System as per the instructions given below:

Sl. No.	Description	Quantity
1	Multipurpose Furnace for wet oxidation, dry oxidation, doping (p-type and n-type) through diffusion, and annealing (Detailed specifications of above items as per Annexure-A)	1

1. Schedule of EMD :

1	Last Date and Time of receipt of tender :	17.01.2019 up to 03:00 PM.
2	Opening of Technical Bids on :	17.01.2019 at 03:30 PM.
3	Tender Fee	₹1,180.00 (GST @18% inclusive)
4	Earnest Money Deposit (EMD)	₹160,000.00

2. Tender Fees and EMD:

Tender Fees & EMD to be submitted in shape of DD/BG/TDR favouring 'IIT Ropar Revenue Account' payable at Ropar alongwith the Technical Bid. Offers without EMD shall not be considered.

3. Two Bid System :

- (a) Technical bid consisting of all technical details alongwith commercial terms and conditions and EMD; and
(b) Financial bid indicating item-wise price for the items mentioned in the technical bid.

Technical bid and financial bid should be sealed in separate covers duly superscribed and both these sealed covers are to be put in a bigger cover which should also be sealed and duly superscribed as "Technical Bid for the supply of "Multipurpose Furnace for wet oxidation, dry oxidation, doping (p-type and n-type) through diffusion, and annealing" and "Financial Bid for the supply of "Multipurpose Furnace for wet oxidation, dry oxidation, doping (p-type and n-type) through diffusion, and annealing" Due on < Last date and time >. Technical bids shall be opened at the first instance and evaluated by technical committee. At the second stage financial bids of the only technically qualified bidders shall be opened for financial evaluation and ranking before awarding the contract. Mixing price bid with technical bid will disqualify your bid for further evaluation.

4. Submission of tender:

Offers addressed to the 'Registrar, IIT Ropar' and valid for 90 days should reach the The Deputy Registrar (S&P), Utility Block, Indian Institute of Technology Ropar, Birla Farms, Permanent Campus, Rupnagar-140111 on or before the last date and time. Tenders received late shall not be considered.

5. Bidding:

- a). Either the Indian agent on behalf of the Principal/OEM or Principal/OEM itself can bid.
b). If an agent submits bid on behalf of a Principal/OEM, the same agent shall not submit a bid on behalf of another Principal/OEM in the same tender for the same item/product.

All offers other than those from the Principal/OEM should be supported by an authority letter from the manufacturer authorizing the supplier to tender on their behalf. In case of manufacturer a certificate or a copy thereof to the effect that the bidder is a manufacturer of the equipment must be accompanied with the technical bid prepared as per 'Annexure – B'.

6. Opening of Bids:

Technical bids will be opened as per the above schedule in the presence of bidders or their authorized representatives whosoever may wish to attend. In case the due date of receipt/opening of the quotation/s (technical/price) is declared a holiday in the Institute, then, the due date of receipt/opening of the quotations shall be the next working day at the same time.

7. Price Bid:

Price bid should be prepared as per 'Annexure – E'.

8. Rates Comparison:

Bidders are requested to send their rates on FOR, IIT Ropar basis in case of indigenous items and on FOB/FCA basis in case of imported items with separately mentioning CIF/CIP charges. Rates comparison will be made on Net Price (Including Freight/ Insurance/Installation/Taxes/Duties etc.) if offers are received both for indigenous and import items. If offers are received only for import items then comparison will be made on FOB/FCA basis. Rates of available foreign currency will be taken from RBI website as on the opening of the technical bids for the purpose of conversion in Indian rupees.

9. Spares:

The spare parts/wear & tear consumables, if any, required for trouble free operation of equipment to be quoted separately giving the full nomenclature, rate, quantity and shelf life of each item.

10. Indigenous items:

The items which can/are to be provided indigenously may be listed separately.

11. Parts of Equipments:

Where the equipment is composed of several subunits/components, the rate should be quoted for each subunit/component. The Institute reserves the right to increase or decrease the number of subunits/components and number of equipment according to its requirements. The rates in ambiguous terms will render the quotation liable to rejection. The words "Not quoting" should be clearly written against any item of equipment for which the tenderer is not quoting.

12. Payment Terms:

Payment will be made to the supplier through following modes.

a). Indigenous goods:

NEFT/Cheque/Demand Draft : 90% payment will be made within 30 days from the date of receipt of material at IIT Ropar and balance 10% after successful installation of the equipment and on the submission of performance bank guarantee valid for warranty period + 3 months .

b). Imported goods:

Letter of credit/Telegraphic Transfer/Sight Draft – 90% payment will be made through LC/TT/SD and balance 10% after successful installation of the equipment and submission of performance bank guarantee for 10% of order value, either by the principal company or by their Indian agent valid for warranty period + 3 months. Bank charges occurred outside India will be borne by the beneficiary.

13. Acceptance of Terms & Conditions:

Bidders must confirm the acceptance of all the terms and conditions of this NIQ. Any non-acceptance or deviations from the terms and conditions must be clearly mentioned. However, tenderers must note carefully that any conditional offer or any deviation from the terms and conditions of this NIQ may render the quotation liable for rejection.

14. Service Manual/Circuit Diagram

It is specifically required that the bidders will supply all the operating & service manuals and circuit diagrams alongwith the equipment.

15. Power Supply:

The equipment should be quoted only for 220 volts and 50Hz electricity supply. The extra requirement of line voltage, current rating etc. and the optimum climate and environment required for the equipment must be stated precisely. Voltage stabilizers/ isolation transformers/CVT/UPS etc., as may be required shall be listed separately. The full technical specifications and literature in respect of the voltage stabilizer etc., must be furnished.

16. Guarantee/Warranty and AMC:

Duly signed and stamped certificate of at least 1 year comprehensive onsite warranty as per Annexure-G should be attached with the technical bid. Successful firm will be required to agree for payment of penalty for exceeding permissible downtime during Guarantee / Warranty period. Annual Maintenance Contract charges for 2 years after the expiry of warranty period should be quoted as per Annexure-H. The rates of AMC will be taken into consideration while making rates comparison.

17. Country of origin:

Country of origin of the quoted item should be mentioned in the offer in case of imported item.

18. Customs Duty or Excise Duty:

IIT Ropar is exempted from the payment of Customs Duty/Excise Duty. CDEC/EDEC with DSIR certificate will be provided along with the order (If applicable).

19. Service Facility:

Bidder should mention about the service set up in India and how capable they are to provide after sales services.

20. Training:

If required, should be included in your offer without any extra cost.

21. Banker's details:

Name and address of the banker of your company should be mentioned.

22. Reference of supply:

Name and contact details of the premier educational Institutes where the quoted equipment has been installed in India should be attached as per Annexure-F during the last 5 years. Copies of at least two purchase orders may be attached (If possible). IIT Ropar reserves the right to inspect the equipment for its actual performance in any of the listed Institute. The list of installations with contact details for the last 5 years must be provided.

23. Arbitration

In the event of failure to carry out the contractual obligations, within the stipulated period or extended period and determination of the contract for any reason, violation of warranties etc. the IIT Ropar shall have the right to carry out the unfinished obligation at the exclusive cost and risk of the bidder/firm, after due notice and the difference so accrued shall be recoverable from the bidder/firm.

23.2 The provision of the Arbitration and Conciliation Act, 1996 or as at the relevant time and of rules framed there under and any statutory modifications thereof shall be deemed to apply and be incorporated in this agreement.

23.3 Upon every or any such reference, the cost of any incidentals to the reference and award(s) respectively shall be at the reasonable discretion of the Arbitrators or in the event of their not agreeing, of the Umpire appointed by them who may determine the amount thereof or direct the same to be fixed as between solicitors and client or as between parties and shall direct by whom and in what manner the same shall be borne and paid.

23.4 Panel of arbitrators will be provided by IIT Ropar out of which the bidder will have to select one.

23.5 The bidder shall have no objection if the officer who has dealt with the case at any stage is nominated as an arbitrator. Further, that one of the arbitrator's shall be Accounts Expert.

23.6 In case of vacancy being caused due to resignation, death or incapacity of the arbitrator(s) to function as such, the same shall be provided in the aforesaid manner and the new arbitrator(s) shall proceed from the stage at which vacancy is caused.

24. Jurisdiction:

The Courts of Ropar alone will have the jurisdiction to try any matter, dispute or difference between the parties arising out of this tender/contract. It is specifically agreed that no Court outside and other than Ropar court shall have jurisdiction in the matter.

25. Force Majeure:

Any failure of omission or commission to carry out the provision of this contract by the supplier shall not give rise to any claim by one party, one against the other, if such failure of omission or commission arises from an act of God; which shall include all acts of natural calamities such as fire, flood, earthquake, hurricane, or nay pestilence or from civil strikes, compliance with any statute and/or regulations of the Government, lockouts and strikes, riots, embargoes or from any political or other reason beyond the supplier's control including war (whether declared or not) civil war or stage of insurrection, provided that notice of the occurrence of any event by either party to the other shall be given within two weeks from the date of occurrence of such an event which could be attributed to Force Majeure conditions.

26. Risk & Cost

In the event of failure to carry out the contractual obligations, within the stipulated period or extended period and determination of the contract for any reason, violation of warranties etc. the IIT Ropar shall have the right to carry out the unfinished obligation at the exclusive cost and risk of the bidder/firm, after due notice and the difference so accrued shall be recoverable from the bidder/firm.

27. The material found defective upon opening by the supplier representative in presence of Central stores personnel/indenter of IIT Ropar or not as per tendered specifications will be lifted back at the cost and risk of the supplier. The material lying in the IIT Ropar premises would be at supplier's risk and cost.

28. Liquidated Damages:

In case the firm fails to execute the supply as per the purchase order in whole or in part as per the terms and conditions of PO, IIT Ropar can impose the penalty @1% per week of the undelivered stores, subject to a maximum of 10%. It will also be open to the institute to procure the required item(s) from any other source at the risk and expense of the firm.

29. Relocation:

The supplier has to stand guaranteed for the relocation of supplied equipment once the permanent campus of IIT Ropar gets ready for operation. Transportation of the equipment will be provided by the Institute.

Note: The Director, IIT Ropar reserves the right to accept/reject any or all tenders without assigning any reasons thereof and also to reject the material if the same is not found conforming to the specifications, with further right to affect risk and cost of the purchases.

Registrar

Annexure - A

Specification of Multipurpose Furnace for wet oxidation, dry oxidation, doping (p-type and n-type) through diffusion, and annealing

S. No.	Parameters	Specifications details
1.	Temperature Range	Up to 1100° C +/- 1° C deviation
2.	Temperature sensor	Thermocouple K type
3.	Heaters	Kanthal
4.	Cooling rate	< 60 minutes from 1100° C to 100° C
5.	Cooling	PID controlled cooling blower for outer chamber surface, heater coils and insulation
6.	Wafer Size	100 mm (4 inch)
7.	Carrier	Easy to replace carrier system for wafers, substrates (up to 40 wafers)
8.	Multipurpose Capability	Should support different process of oxidation and diffusion without cross contamination by easily replaceable inner quartz tube/ system
9.	Operations	<ul style="list-style-type: none">• Dry and wet oxidation with DI bubbler, gas lines with flow meter and other required accessories• p and n type doping by diffusion from solid state source with all required accessories• Should be configured for annealing with all necessary accessories• Different tubes for different process of oxidation and diffusion, and annealing (4 difference set of Quartz tubes)
11.	Gas Supply	Two gas lines with digital flow meter and one spare gas lines with digital flow meter
12.	Safety Circuits	<ul style="list-style-type: none">• Chamber door lock should also be provided at hazardous situations• Visual and acoustic alarm messages for critical errors and process control
13.	Software	<ul style="list-style-type: none">• Entire furnace should be controlled with windows-based software• Process Recipes generation• Process management• Data logging with file management up

		to several user level
14.	Computer	Vendor should provide computer interfactable with furnace for controlling furnace
15.	Controller	PLC based
16.	Ventilation	Proper ventilation for cooling air (process exhaust)
17.	Furnace cooling system	Air cooled furnace will be preferred
18.	Uniformity	The vendor should provide detailed recipies for the above mentioned operations <ul style="list-style-type: none"> • Wafer to wafer • Within wafer • Time vs thickness dependency
19.	Warranty	1 year from the date of installation
20.	Accessories & Spares	Vendor should provide all the required accessories with 1 set of spares with furnace
21.	Training	The vendor should provide training to students at our site
22.	Note:	<ul style="list-style-type: none"> (i) Furnace with 100 class clean room compatibility (ii) The manufacturer should be as ISO 9001/ CE mark. (iii) Should work with Indian power supply (iv) With suitable pumping systems compatible for the above mentioned operations (v) With all required accessories and demonstration of the processes during installation and training

FORMAT FOR MANUFACTURER'S AUTHORISATION CERTIFICATE

To,
The Registrar
Indian Institute of Technology Ropar
Nangal Road, Rupnagar-140001

Sub. : Tender for “ _____ ”.

Dear Sir,

We, _____, who are established and reputed manufacturers of _____, having factory/office at _____, hereby authorize M/s _____ [name & address of agents/distributors] to bid, negotiate and conclude the order with you for the above goods manufactured by us.

We shall remain responsible for the tender/Agreement negotiated by M/s _____, jointly and severally. No company or firm or individual other than M/s _____ are authorized to bid, negotiate and conclude the order in regard to this business against this specific tender as for all business in the entire territory of India.

An agency commission of ____% included in the FOB price is payable to M/s _____. We hereby extend our full guarantee and warranty as per the terms and conditions of tender for the goods offered for supply against this invitation for bid by the above supplier.

1. _____

2. _____

*specify in detail manufacturer's responsibilities+the services to be rendered by M/s _____ are as under:

i) _____

ii) _____

[Specify the services to be rendered by the agent/distributor] In case duties of the agent/distributor are changed or agent/ distributor is changed it shall be obligatory on us to automatically transfer all the duties and obligations to the new Indian Agent failing which we will ipso-facto become liable for all acts of commission or omission on the part of new Indian Agent/ distributor.

Yours faithfully,

[Name & Signature]

For and on behalf of M/s. _____ [Name of manufacturer]

Note: This letter of authorization should be on the letterhead of the manufacturing concern and should be signed by a person competent and having the power of attorney to bind the manufacturer.

FORMAT FOR NON BLACKLISTING OF SUPPLIER

I/ We _____Manufacturer/partner/Authorized Distributor/Agent (strike out which is not applicable) of (Supplier) _____ do hereby declare and solemnly affirm that the individual/firm/company is not black-listed by the Union/State Government/Autonomous body.

Deponent
Address _____

I/ We hereby solemnly declare and affirm that the above declaration is true and correct to the best of my knowledge and belief. No part of it is false and nothing has been concealed.

Deponent
Dated: _____

(Note: To be furnished on non-judicial stamp paper duly attested by the Oath Commissioner.)

FORMAT FOR THE SUBMISSION OF RATES – PRICE BID

(To be submitted on the letterhead of the company/firm)

Name of the Equipment _____

Name of the Manufacturer _____

Make of the Equipment _____

Model Number _____

County of Origin _____

Sl. No.	Particulars	Rate/Unit
1	Cost of the equipment with 1 year comprehensive warranty (FOB value including Indian Agency Commission)	
2	Air freight, Insurance charges etc. (In case of import item)	
3	Total CIF value up to New Delhi Airport (In case of import item)/ Total FOR IIT Ropar value (In case of indigenous item)	
4	AMC charges for 1st year after expiry of warranty	
5	AMC charges for 2nd year after expiry of warranty	
6	Percentage of Indian Agency Commission (IAC) payable to the Indian Agent, if any (In case of import item).	
7	FOR charges in Rupees including clearance, loading & unloading, transportation and insurance from New Delhi Airport to IIT Ropar (In case of import item)	
8	Packing dimension of the equipment	
9	Gross weight of the equipment after packing	

This is certified that the rates quoted above are not more than the rates charged from any other Institute/ Department/Organization.

Note:

1. Taxes and other levies, if any are to be clearly specified in the bid.

CERTIFICATE OF WARRANTY

i). I/We certify that the warranty shall be for a period of 1 year comprehensive onsite warranty starting from the date of satisfactory installation, commissioning and handing over of the equipment and of the works conducted therewith covered under the supply order in working order. During the warranty period, I/we shall provide free “after sale service” and the replacement of any part(s) of the equipment or rectification of defects of work of the equipment will be free of cost. The replacement of the parts shall be arranged by us, at our own cost and responsibility. We undertake that the above warranty shall begin only from the date of satisfactory and faultless functioning of the equipment for 60 days at IIT Ropar premises. The benefit of change in dates of the warranty period shall be in the interest of the use/your organization.

ii). During the warranty period, we shall provide at least 3 preventive maintenance visits.

iii). Uptime Guarantee: During the warranty period, we will be responsible to maintain the equipment in good working conditions for a period 345 days (i.e. 95% uptime) in a block of 365 days.

a). All complaints will be attended by us within 2 weeks of receipt of the complaint in our office.

b). In case there is delay of more than 2 weeks in attending to a complaint from our side then you can count the number of days in excess of the permissible response time in the downtime. The above said response time of 2 weeks for attending to a complaint by us will not be counted in the downtime.

c). Penalty: We shall pay a penalty equivalent to 0.1 % of the FOB value of the equipment for every week or part thereof delay in rectifying the defect.

Note: The right to accept the reason (s) for delay and consider reduction or waive off the penalty for the same shall be at the sole discretion of Director, IIT Ropar

iv). We certify that the equipment being/quoted is the latest model and that spares for the equipment will be available for a period of at least 10 years and we also guarantee that we will keep the organization informed of any update of the equipment over a period of 10 years.

v). We guarantee that in case we fail to carry out the maintenance within the stipulated period, IIT Ropar reserves the right to get the maintenance work carried out at our risk, cost and responsibility after informing us. All the expenses including excess payment for repairs/maintenance shall be adjusted against the Performance Bank Guarantee. In case the expenses exceed the amount of Performance Bank Guarantee, the same shall be recoverable from us with/without interest in accordance with the circumstances.

vi). We shall try to repair the equipment at IIT Ropar premises itself. However, the equipment will be taken to our site on our own expenses in case it is not possible to repair the same at IIT Ropar. We shall take the entire responsibility for the safe custody and transportation of the equipment taken out for repairs till the equipment is rehabilitated to the IIT Ropar after repair Any loss of equipment or its accessories under its charge on account of theft, fire or any other reasons shall be at our sole risk and responsibility which will be compensated to IIT Ropar for such losses at the FOB/CIF value for the damaged/lost equipment/part, including accessories.

vii). We undertake to perform calibration after every major repair/breakdown/taking the equipment for repair out of IIT Ropar premises.

viii). In case of extended warrantee, we undertake to carry out annual calibration of the equipment.

ix). We guarantee that we will supply spare parts if and when required on agreed basis for an agreed price. The agreed basis could be an agreed discount on the published catalogue price.

x). We guarantee to the effect that before going out of production of spare parts, we will give adequate advance notice to you so that you may undertake to procure the balance of the life time requirements of spare parts.

xi). We guarantee the entire unit against defects of manufacture, workmanship and poor quality of components.

TERMS AND CONDITIONS OF THE SERVICE CONTRACT

1. During the service contract period, the firm shall provide at least 3 preventive maintenance visits per year and attended to all emergent and break-down calls.
2. The service contract charges must be quoted separately for each year strictly as under and quoting of rates in ambiguous terms or in percentage terms etc. shall render the tender liable to rejection :
3. Rate for 1st year = _____ (Rupees in words).
Rate for 2nd year = _____ (Rupees in words).
4. The service contract charges should be quoted only for services and travel cost etc. and should not include the cost of any replacement parts/components which shall be arranged by the IIT ROPAR at its own cost.
5. In each block of 365 days during the entire service contract period the firm will be responsible to maintain the equipment in good working condition for a period 350 days (i.e 96% uptime). The time taken by the IIT ROPAR in providing to the firm the spare parts shall not count towards the down time. All the complaints will be attended by the firm within 2 working days of the dispatch of the complaint to their office. In case there is delay of more than 2 working days in attending to a complaint then the number of days in excess of the permissible response time shall be counted in the downtime. In case total downtime exceeds the permissible downtime a fine equivalent to double the service contract charges shall be recovered from the firm on per day basis.
6. The right to accept the reason(s) for delay and consider reduction or waive off the penalty for the same shall be at the sole discretion of Registrar, IIT Ropar.
7. We undertake to carry out annual calibration of the equipment.
8. We undertake to perform calibration after every major repair/breakdown/taking the equipment for repair out of IIT Ropar premises.
9. The replaced parts shall remain the property of the IIT Ropar.
10. The firm shall try to repair the equipment at IIT Ropar itself. However, the equipment may be taken to their site, on their own expenses if in case it is not possible to repair the same at IIT Ropar. The firm shall take the entire responsibility for the safe custody and transportation of the equipment taken out for repairs till this is handed over the purchaser after repair. Any loss of equipment or its accessories on account of theft, fire or any such reasons shall be the sole risk and responsibility of the firm who will compensate the IIT Ropar for such losses at FOB value of the damaged/lost equipment/part including accessories.
11. During the service contract period the parts/components that may be needing replacement shall made available by the IIT Ropar at their own expenses and all import formalities, payment of customs duty etc., shall be complied with/borne by the IIT Ropar.
- 12. All service contract charges will be invoiced twice in each year. The payment of the invoice will be made afterwards.**
13. No price revisions will be accepted by the IIT Ropar during the entire tenure of the service contract agreement.
14. AMC contains both hardware and software troubleshooting.