



क्रय अनुभाग
वन अनुसंधान संस्थान
देहरादून-२४८००६
GSTIN 05AAAAI1708G2Z6
PAN NO. AAAAI1708G

Purchase Section
Forest Research Institute,
Dehradun-248006, UTTARAKHAND
Phone: 0135-2224205
<http://fri.icfre.gov.in/tender/>
Email: po_fri@icfre.org



Notice Inviting Tender (E-Publishing mode) – Re-Tender निविदा दस्तावेज/ Tender Document

Ref. No X-68/DFP (WWF) / SG/AICRP/2019-20

Date: 17/06/2020

Physical Bids (Offline mode) under one bid system (Techno-Commercial) are invited from the reputed manufacturer /authorized supplier/dealer for the following items. The bids complete in all respect must reach by By-post/By-hand/By-Courier etc., to the Purchase Officer, Purchase Section, Forest Research Institute, P.O. New Forest, Dehradun-248006, Uttarakhand, India on or before:

Bid Submission End Date	17-07-2020	Time	03:00 PM
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वस्तु की तकनीकी विशिष्टताये / Technical Specification of item:

S. No.	Name of item	Quantity	Warranty	EMD (Rs.)	Tender Fee (Rs.)
1.	Ultrasonicator	01	1 Year	11,000/-	NIL
2.	Ball Milling Machine (Ball Mill)	01		6,000/-	
3.	Homogenizer	01		4,000/-	
4.	Ultrasonic Bath Sonicator	01		3,000/-	
5.	Spectro colorimeter	01		10,000/-	

(For Detailed Technical Specification Plz refer Annexure-VII)

नोट-1: कृपया वस्तु का मूल्य एवं कर अलग-अलग दर्शाए/Please quote the rate & Taxes of the item separately

Note-2: E-way bill is to be issued by the Venders/Transporter

Note-3: The HSN / SAC Code of the item must be mentioned.

Technical Clarifications:	Dr. Sachin Gupta Chief Technical Officer	Wood Working & Finishing Discipline (Forest Products Division) FRI Dehradun	Ph: 0135-222-4443 sachin@icfre.org
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Critical Date Sheet

S.No.	Particulars	Date	Time	Location
1.	Published Date	17.06.2020	05:00 PM	FRI website and CPP portal: https://www.eprocure.gov.in/epublish/app
2.	Bid Document Download Start Date	17.06.2020	06:00 PM	At CPPP Portal as above
3.	Bid Submission Start Date	18.06.2020	10:00 AM	At CPPP Portal as above
4.	Seek Clarifications Start Date	18.06.2020	10:00 AM	Through Phone/Email
5.	Seek Clarification End Date	15.07.2020	05:00 PM	Through Phone/Email
6.	Bid Submission End Date	17.07.2020	03:00 PM	At Purchase Section, FRI Main Building
7.	Bid Opening Date	17.07.2020	04:00 PM	At Purchase Section, FRI Main Building

CHAPTER-1: INSTRUCTION TO BIDDERS

1.1 The Tender should be enclosed with proper certifications like Agency Certification, Authorization certificate and /or Proprietary Certificate, as the case may be, in support of your offer.

1.2 Supply means: "Supply, Installation & Commissioning".

1.3 बोली का जमा किया जाना / Submission of Bids:

- (i) The bids should be submitted with **Annexure-I, II, III, IV, V and VI with Supporting / Required documents in one single duly sealed envelope labeled on the left hand top corner of their envelope mentioning followings:**

Ref. No X-68/DFP (WWF) / SG/AICRP/2019-20

Bid Submission End Date/Time:	17-07-2020	by	03:00 PM
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Name (in full) and complete address of the firm should be mentioned on left hand bottom corner of the covering envelop.

- (ii) The bids should be printed on official pad preferably with GST Number of the firm.
- (iii) The quotations should bear full details and where possible may be duly supported with catalogues, pamphlets, literature, samples of the item/items as the case may be for comparing the quality and rates of the item(s).
- (iv) Quotation received after the closing date and time shall not be considered.
- (v) The transportation cost, insurance charge etc., if any, Percentage/ rate of GST or all other taxes and duties should be clearly mentioned.
- (vi) The bids / rates / tenders should remain valid for a minimum period of 45 days from the date of opening.
- (vii) **Since this purchase being for research purpose and FRI, Dehradun is registered in DSIR, New Delhi. It is therefore exempted from the payment of custom duty and GST @ 5% as per the Govt. Rules. The bidder should quote accordingly.**
- (viii) There should not be any over-writing or cutting on rates quoted. However, all cutting/corrections must be duly authenticated else the offer will be rejected.
- (ix) The rates shall not be subject to escalation of any nature.
- (x) The rates quoted should be applicable to educational institutions and any cost advantage received in lieu thereof should be passed on the Institution.
- (xi) While quoting/ sending rates, the firm shall give an undertaking as per Annexure-IV.
- (xii) The quotations should be given for the items in the same order as in the enquiry letter.
- (xiii) Agreements/Purchase order/Completion certificates if any for similar works in other institutes, the details of such supplies for the preceding three years should be given together with the prices eventually or finally paid.
- (xiv) Duly filled checklist as per **Annexure-I** should be submitted along with tender.

1.4 निविदा शुल्क/ Tender Fee एवं/and अग्रिम धन राशि / Earnest Money Deposit (EMD)

The Technical Bid should accompany **non-refundable Tender Fee in form of Demand Draft only** and an **EMD in the form of FDR only of the value mentioned at the first page of this tender document only for the equipment(s) bidding by the bidder as the case may be**, issued from any of the Commercial Banks of India drawn in favour of "Director, Forest Research Institute, Dehradun" valid 90 days beyond the validity period of bid. The Bidder have to mentioned the Tender Fee and EMD details as per quote item (s) and the hard copy of these payment (s) along with the bid proposal should be deposited to the Purchase Officer, Purchase Section Forest Research Institute, Dehradun-248006 on or before the Bid Submission end date. Time as mentioned in Critical date sheet.

Exemption on submission of Tender Fee/EMD will be given against valid MSME/NSIC/KVIC certificate under valid category and within the validating period of the certificate.

The earnest money shall be refunded to all the unsuccessful firms, without any interest after finalization of the contract.

EMD shall be refunded to the successful firm on receipt of PBG/Security Deposit. No interest is payable on the EMD to either the successful firms or the unsuccessful firms.

1.5 निष्पादन बैंक प्रत्याभूति / Performance Bank Guarantee (PBG):

5% of the cost price in the form of Bank Guarantee or FDR pledged in favour of "Director, Forest Research Institute, Dehradun" is required to be submitted by successful bidder before the delivery / installation works complete of the items(s) which should remain valid at least during the warranty period plus sixty days. No interest shall be claimed by the bidder on the PBG submitted. The Bank Guarantee may be forfeited in case of improper services provided by the bidder/firm and duly certified by the concerned Consignee/HOD.

1.6 बोलियों का खोला जाना/Opening of Bids:

1) The Bids will be opened as given below:

Bid Submission Opening Date/Time:	17-07-2020	04:00 PM	Venue: Purchase Section, Main Building, FRI Dehradun
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Representatives of the firms (s) may be present at the time of opening the technical bid if they so desire at above schedule (No information shall be given to the late arrivals regarding the bids).

CHAPTER-2: CONDITIONS OF CONTRACT

2.1 कीमत / Price

- The price quoted shall be considered firm and no price escalation will be permitted. The price criteria should be on F.O.R., FRI Dehradun. Govt. levies like GST, if any, shall be paid at actual rates applicable on the date of delivery. The rates should be quoted accordingly giving the basic price, GST, if any.
- The rate of **GST applicable to FRI Dehradun is 5% and also exempted from the payment of custom duty** for the items procured for Research Purpose as per Notification No. 45/2017-Central Tax (Rates) New Delhi, 14th November, 2017 and Notification No.47/2017-Integrated Tax (Rate) New Delhi 14 November 2017. The bidder should quote accordingly
- The price mentioned in Financial Bid must be inclusive of transportation, insurance, loading/unloading, installation, commissioning, training and any other incidental/local service required for delivering the goods for desired destination as decided by FRI Dehradun.
- The institute will not be responsible in case of the bidders failing to include charges towards insurance & transportation, installation, commissioning and training (if any). The price mentioned in the financial bid will be final and the bidder has to comply with that, if awarded the tender.

2.2 वारंटी समर्थन / Warranty Support

- The items covered by the schedule of requirement shall carry the warranty for the period mentioned in this tender document/specification of **COMPREHENSIVE WARRANTY** from the date of acceptance of the equipment by FRI Dehradun. Warranty shall include free maintenance of the whole equipment supplied including free replacement of parts. The defects, if any, shall be attended to on immediate basis but in no case any defect should prolog for more than 48 hours. The comprehensive warranty includes onsite warranty with parts.
- The defects, if any, during the guarantee/warranty period are to be rectified free of charge be arranging free replacement wherever necessary. This includes cost, insurance, freight, custom duty, octroi, local taxes , if any, should be borne by the beneficiary or his agent.

- (iii) The warranty on the associated software should cover providing of upgraded version/s, if any, released during the warranty period free of cost.
- (iv) The bidder shall ensure the supply of spare parts after warranty is over for maintenance of the equipment supplied if and when required for a period of 5 years from the date of supply of equipment on payment on approved price list basis.
- (v) The equipment must be supported by a Service Centre in India manned by the principal vendor's technical support engineers. The support through this Centre must be available 24 hours in a day, seven days a week and 365 days a year. Also it should be possible to contact the Principal's vendor support Centre on a toll free number/web/mail
- (vi) The vendor will have to arrange for all the testing equipment & tools required for installation, testing & maintenance etc.
- (vii) Details of onsite warranty, agency who shall maintain during warranty and undertake Annual Maintenance Contract/Comprehensive Service Maintenance Contract beyond warranty shall be given in the offer. In case of foreign quote, the Indian Agent who shall maintain during warranty and AMC beyond warranty shall be given in the Technical Offer.
- (viii) The warranty period and validity of Performance Guarantee shall be extended for the period of delay in satisfactory installation and delay in warranty services.

2.3 कार्य अनुबन्ध / Award of Contract:

The final selection of the bidder for the award of the contract will be made on the basis of the evaluation of techno-commercial proposal submitted by the prospective qualified bidders.

2.4 पूर्व आपूर्ति निरीक्षण/ Pre-supply Inspection:

Authorized representative of the Institute shall make the final inspection before supply of the item at site of the firm, if required.

2.5 वस्तु की आपूर्ति / Supply of Item:

The whole supply as per order shall have to be completed within the time mentioned in the order failing which the FRI Dehradun shall have the right to accept or reject any quantity of items ordered. The firm will have to arrange for supply of the material/ equipment in good condition.

2.6 क्षतिपूर्ति / Indemnity

The vendor shall indemnify, protect and save FRI Dehradun against all claims, losses, costs, damages, expenses, action suits and other proceeding, resulting from infringement of any law pertaining to patent, trademarks, copyrights etc. or such other statutory infringements in respect of all the equipments supplied by them.

2.7 भाड़ा व बीमा / Freight & Insurance

The equipment's to be supplied will be insured by the vendor against all risks of Loss or damage from the date of shipment till such time it is delivered at IISER, TIRUPATI site.

2.8 भुगतान की शर्तें / Payment Terms:

(i) No advance payments are allowed under any circumstances.

(ii) Payment in INR for supply of goods:

a) Where installation is not required: 100% payment will be made after satisfactory delivery of material duly certified by the HOD. OR

b) Where installation is required: 100% payment will be made after satisfactory delivery and installation of the material duly certified by the HOD. OR

- c) 100% Advance will be paid against submission of 110% Bank Guarantee of the Total Order value subjected to the approval of competent authority.

(iii) Payment in INR for AMC/CMC/Service:

- a) Quarterly/Half yearly after satisfactory completion of work/service duly certified by the H.O.D./P.I.

(iv) Payment in Foreign Currency for supply of goods:

- a) Payment will be made as below after deducting Indian Agency Commission (if any). IAC is payable in Indian Rupee after satisfactory installation.

(v) Payment through Letter of Credit (LC).

(vi) Payment 100% through Sight Draft

(vii) Payment through Wire transfer after receipt of material in good condition.

(viii) Payment in Foreign Currency for AMC/CMC/Services:

- a) Quarterly/Half yearly after satisfactory completion of work/service duly certified by the H.O.D./P.I. through wire transfer.

2.9 दंड/ Penalty for delayed Services/LD:

A penalty of 0.5% of the total order value per week shall be levied for the delay subject to a maximum of 5% of the total order value.

In case of the non-supply of the item after the acceptance of the work/supply order, EMD will be forfeited by the Institute.

2.10 अप्रत्याशित घटना/ Force Majeure:

For the purpose of and within the scope of contract by way of indication and not of limitation, the term "Force Mejeure" shall mean acts of nature, strikes, Lockouts, or other industrial disturbances, act of public/enemy, wars, blockades, insurrection, riots, epidemics, landslides, earthquakes, storms lightening, flood, washouts, civil disturbances, explosion and any other similar even not within the control of either party on which by exercise of due care and diligence neither party is able to prevent or overcome.

2.11 मध्यस्थता/Arbitration:

In the event of any difference or dispute arising out this work, all effort shall be made by both the parties to settle the same amicably. Failing an amicable settlement, the dispute shall be finally settled through arbitration conducted under the Arbitration and Conciliation Act 1996, by arbitrators appointed in accordance with the said Act. The arbitration shall give reasoned and speaking award. All disputes are subject to Dehradun jurisdiction only.

2.12 बोली अस्वीकृती के लिए मानदंड/ Criteria for bid rejection:

- (i) If not received on or before due date and time.
- (ii) If technical bid found without the required undertaking (Annexure-IV).
- (iii) If it found at a later date that any information given in the bids is incorrect/false then the bid is liable to be disqualified/rejected.
- (iv) Canvassing in any form will result in disqualification.
- (v) If "extra, as actual" etc. are mentioned against any of the price components in the bid the bid will be rejected.
- (vi) If any bidder submitting two/multiple bids for the same of a tender, both/all the bids if that bidder will be outrightly rejected.
- (vii) If the firm quotes 'NIL' charges/ consideration, the bid shall be treated as unresponsive and will not be considered.

2.13 सत्यनिष्ठा संहिता /Code of Integrity

False declarations will be in breach of the Code of Integrity under Rule 175(1)(i)(h) of the General Financial Rules for which a bidder or its successors can be debarred for upto 2 years as per rule 151 (iii) of the General Financial Rules along-with such other actions as may be permissible under law.

CHAPTER-3: SCHEDULES OF REQUIREMENTS

3.1 टिप्पणी/Note:

- (i) **Techno-Commercial Bid in form of Annexure-I, II, III, IV, V & VI have to be submitted in single sealed envelope.**
- (ii) If the Supplier/firm is manufacturer/authorized dealer/sole distributor/of the item, the certificate to this effect should be attached.
- (iii) Please note that the firm must submit the **separate compliance Statement** for each item quoting in Annexure-III in respect of all the specifications with the supporting printed catalogue/leaflet/Brochure of the quoted items with **highlighting their offered specifications.**
- (iv) It may also be noted that the tender bids received after the stipulated date & time or found incomplete and tender bids containing false/incorrect information shall be summarily rejected. The Institute shall not entertain any communication in this regard, whatsoever.
- (v) The firm is required to give its Bank Account details with IFSC for the purpose of making e-payment.
- (vi) The Forest Research Institute (FRI) Dehradun reserves the right to reject any quotation wholly or partly without assigning any reason.
- (vii) The quantity shown against the item is approximate and may vary as per demand of the Institute at the time placing order.
- (viii) The decision of the Institute in all matters relating to eligibility, acceptance, rejection of the bid will be final and binding on the applicants.
- (ix) Forest Research Institute (FRI) Dehradun discourages High Sea Sale Purchase. All tenders with High Sea Sale will be rejected.
- (x) The firms should clearly mention (in the financial bid) the Harmonized System of Classification (HS code) defined by the Central Custom and Excise Board (Govt. of India) for the item (s) involving import.
- (xi) **If the due date happens to be a holiday, then the bid will be accepted till 03.00 PM and opened at 04.00 PM of the next working day followed by the holiday.**
- (xii) If an agent submits bid on behalf of the Principal/OEM, the same agent can not submit a bid on behalf of another Principal/OEM in the same tender for the same item/product.
- (xiii) **Indian Agent should submit the certificate from the Foreign Principal that they are the Authorized & Registered Indian Agent.**
- (xiv) The quantity shown in the tender can be increased or decreased to any extent depending upon the actual requirement. Any corrigendum/addendum/errata in respect of the Tender Notice/ Enquiry letter shall be made available only at our Institute website **<http://fri.icfre.gov.in/tender/>**. Hence prospective bidders are advised to visit the Institute website regularly.
- (xv) Bidders shall be responsible for the correctness of the information provided in the enquiry letter/tender document. If it is found at a later date that any information given in the bid is incorrect/false then the bid is liable to be disqualified/rejected.
- (xvi) Institute will not be responsible for non-receipt of bid(s) within the stipulated date due to any postal delay or delay for any other reason in transit.
- (xvii) Before submission of bids, bidders should read the complete enquiry letter/tender document carefully and ensure that the bidders fulfill the eligibility criteria.
- (xviii) In case the item /product is under rate contract with DGS&D or GeM, then bidder should certify that the rate quoted is not over and above (higher side) the rates under RC with the DGS&D or GeM.

- (xix) In case calculation mistakes are found in the financial bid, then calculation shall be made by the Institute on the basis of rate per unit quoted by the bidders will be processed further.
- (xx) The Institute reserves the right to rectify any discrepancy of this advertisement, if found later on. In case of any inadvertent mistake in the process which may be detected at any stage even after the issue of purchase order, the Institute reserves the right to modify/withdraw/cancel any communication made to the bidder.

Chapter-4:	Specification and allied Technical details	Plz. See Annexure-I, II, III, IV, V & VII
Chapter-5:	Financial/Price Schedule (to be utilized by the bidders for quoting their prices)	Plz. See Annexure- VI
Chapter 6:	Contract Form	Purchase Order is used as Contract Form



[PURCHASE OFFICER, FRI]

CHECK LIST
(Eligibility Criteria for Bidders)

Bidders to indicate whether the following documents are enclosed by striking out the non-relevant option.

1.	TENDER FEE OR Self attested copy of Exemption certificate	Yes/No	Page No.
2.	EMD OR Self attested copy of Exemption certificate		
3.	AUTHORIZATION certificate issued by the OEM, if applicable.		
4.	Self attested copy of GST certificate as applicable		
5.	Self attested copy of affidavit of PARTNERSHIP DEED as applicable.		
6.	BIDDER'S PROFILE/INFORMATION FORM: Annexure -II		
7.	*COMPLIANCE SHEET with any deviation- Annexure- III		
8.	*Printed CATALOGUE/BROUCHER/LEFLET of the quoted item(s) enclosed.		
	Keywords of the specifications in the above mentioned Catalogue/Broucher/Leflet are HIGHLIGHTED .		
9.	Tender Acceptance Letter - Annexure- IV		
10.	Copy of the previous two supply orders of the similar equipment/ item of last 3 years from the Central Govt./Statae/Govt./PSU/ CSIR/ICAR/ ICMR/AICTE colleges etc. attached for reasonability of rates: Annexure-V		
11.	Financial/Price Bid- Annexure- VI		

***Note:**

1. Separate sheets need to be attached in case of quoting for more than one equipment as applicable.
2. The firms who already submitted EMD in the tender Ref. No. X-68/DFP(WWf)/SG/AICRP/2019-20 OR tender ID: 2020_ICFRE_518255_1 for a particular item need not to submit again for the same. But he has to submit the bid again with all other codal formalities.

Signature:
Name:
Designation:
Seal of the Firm/Agency

BIDDER PROFILE/INFORMATION FORM

(To be given on Company Letter Head)

Company Name :
 Registration Number :
 Registered Address :
 Name of Partners /Directors :
 :
 City :
 Postal Code :
 Company's Establishment :
 Year :
 Company's Nature of :
 Business :
 Company's Legal Status 1) Limited Company
 (tick on appropriate option) 2) Undertaking
 3) Joint Venture
 4) Partnership
 5) Others
 Company Category 1) Micro Unit as per MSME
 (tick on appropriate option) 2) Small Unit as per MSME
 3) Medium Unit as per MSME
 4) Ancillary Unit
 5) SSI
 6) Others

CONTACT DETAILS

Contact Name :
 Designation :
 Email Id :
 Phone No :
 Mobile No :

BANK DETAILS

Name of Beneficiary :
 A/c. No. CC/CD/SB/OD:
 Name of Bank :
 IFSC NO. (Bank) :
 Branch Address:
 Branch Code:
 Other Details

Vendor's PAN No.
 Vendor's CST No/LST
 No/WCT No/TIN No:

Signature:
 Name:
 Designation:
 Seal of the Firm/Agency



COMPLIANCE STATEMENT OF SPECIFICATIONS

(To be given on Company Letter Head)

विस्तृत विवरण अनुपालन रिपोर्ट के साथ प्रस्तुत किया जाना है (अपने आधिकारिक लेटरहेड पर विक्रेता/ फर्म द्वारा प्रस्तुत करने के लिए)

Detailed specification cum compliance report to be submitted with the Technical Bid (to be submitted by the vender/firm on its official letter head)

Name of the Item(s).....Make:.....Model:.....

Manufacturer/Authorized Distributer /Dealer/Supplier.....

TECHNICAL SPECIFICATIONS:

(For Detailed Technical Specification Plz refer Annexure-VII)

S. No.	Required Items Specifications/ Part/ Accessories as per Tender	Offered specification of item by the bidder	Compliance (Yes/No)	Deviation, If any, in unambiguous terms	Whether highlighted in technical leaflet/literature
1.					
2.					
.					
.					

I have also enclosed all relevant documents in support of my claims (as above) in the following pages.

Signature:

Name:

Designation:

Seal of the Organisation

- Note:
- (i) Manufacturer/Authorized Distributer/Dealer/Supplier valid certificate must be enclosed.
 - (ii) It is compulsory to enclose the printed Catalogue/Leaflet/Brochure etc. of the quoted items.
 - (iii) "Offered specification" should be filled up properly in the format provided above and should be **HIGHLIGHTED** in the enclosed printed Catalogue/Leaflet/Brochure etc.
 - (iv) Volume & Weight of the item should also be mentioned.
 - (v) Separate Compliance Sheets (Annexure-III) must be attached for different quoted Item(s)/Make/Model.

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

Date:

To,
Director
Forest Research Institute
Dehradun-248006

Sub: Acceptance of Terms & Conditions of Tender.**Ref. No X-68/DFP (WWF) / SG/AICRP/2019-20****Date: 17/06/2020****Agreement/Contract Form**

Dear Sir,

- (i) I / We hereby certify that I / we have read the entire terms and conditions of the tender documents from (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.
- (ii) The corrigendum(s) issued from time to time by your department/organization too have also been taken into consideration, while submitting this acceptance letter
- (iii) I / We hereby unconditionally accept the tender conditions of above mentioned tender document(s) / corrigendum(s) in its totality / entirety.
- (iv) **I / We do hereby declare that our Firm has not been blacklisted/ debarred / banned by any Govt. Department/Public sector undertaking.**
- (v) I / We certify that all information furnished by the our Firm is true & correct and in the event that the information is found to be incorrect/untrue or found violated, then your department/ organization 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.
- (vi) It is certified that the rate quoted is not over and above (higher side) the rates under RC with the DGS&D or GeM.

Signature:
Name:
Designation:
Seal of the Firm/Agency



PREVIOUS SUPPLY ORDERS FORMAT

Name of the Firm:

Order placed by {Full address of Purchaser]	Order No., Date and Amount (Rs.)	Name of the ordered equipment and quantity	Date of completion of delivery as per contract	Has the equipment been installed satisfactorily?	Contact Person along with Telephone no., Fax no. and e-mail address

Signature and Seal of the Manufacturer/ bidder

Place:

Date:

FINANCIAL/PRICE BID
(To be given on Company Letter Head)

Ref. No X-68/DFP (WWF) / SG/AICRP/2019-20

Dated: 17/06/2020

Rates:						
S.No.	Name of item/Specifications and Make & Model.....	Qty.	Unit Rate (Rs.)	Amount (Rs.)	*GST etc. @5%	TOTAL (Rs.)
1.	Ultrasonicator	01 No.				
2.	Ball Milling Machine (Ball Mill)	01 No.				
3.	Homogenizer	01 No.				
4.	Ultrasonic Bath Sonicator	01 No.				
5.	Spectro colorimeter	01 No.				
Total						
Grand Total Rs.						

*FRI Dehradun is eligible for Custom Duty exemption and GST @ 5%. Therefore the bidders quote accordingly.

- 1) Price of the items should be clearly mentioned if supplied Free of Cost.

Term & Conditions:

Prices (if quoted in Rs.): FOR FRI, DEHRADUN

1. Payment:

2. Validity:

3. Delivery period:

4. Other Charges:

5. Warranty: **1 Year**

6. Rejection: Equipment if found not as per the required specification would be rejected.

7. Penalty Clause: As per clause-2.9 of enquiry letter.

In case of the non-supply of the item after the acceptance of the work/supply order, EMD will be forfeited by the Institute.

8. PBG: 5% of the cost price in the form of Bank Guarantee or FDR pledged in favour of "Director, Forest Research Institute, Dehradun" is required from the successful bidder at the time of installation of the equipment which should remain valid at least during the warranty period plus sixty days.

It is certified that the rate quoted is not over and above (higher side) the rates under RC with DGS&D or GeM.

Signature:

Name:

Designation:

Seal of the firm/Organisation

RATES: The rates quoted by the bidders, shall be firm and inclusive of all taxes (including GST, transport etc.,) and all charges for packing forwarding, insurance, freight, delivery and unloading at FRI Dehradun, Uttarakhand. Rates to be quoted as per the schedule given in Annexure-VI

SPECIFICATIONS

Item No. 1

Specification Ultrasonicator

1	Programmability: Atleast 15 user settings/groups.
2	Frequency: 20-25KHz.
3	Pulse On/Off: Adjustable from 1 to 99 seconds.
4	Temperature controller and indicator: 0 to 95 degree C.
5	Standard Probes: Titanium (dia 6mm)
6	Additional Probes: a. 3 mm diameter. b. 20 mm diameter.
7	Programmable Timer: Up to 99 hours.
8	Capacity: 1 to 1000 mL
9	Display: Touch screen LCD.
10	Sound proof enclosure: To minimize the pitch noise.
11	Overload protection: Should be present.
12	Password Protection: Facilities should be provided.
13	Certification: CE.
14	Out put power: Up to 1200 W Adjustable.
15	Alarm: Automatic fault alarm.
16	Amplitude: 0-99% adjustable.
17	Input power: 220 volt AC
18	Display parameters: Temperature, power, time, amplitude, programmes, probes diameter etc.

Specification:- Ball Milling Machine (Ball Mill)

1	Feed material: soft, hard, brittle, fibrous - dry or wet.
2	Size reduction principle: impact, friction.
3	Material feed size: Soil material < 10mm, other materials < 3mm.
4	Final fineness: Most materials 2-10 μm , for some materials mini to 0.1 μm .
5	No. of grinding stations: 4X100 ml.
6	Grinding Mode: 2 or 4 jars working simultaneously.
7	Rotation Speed of Grinding Jar: Up to 850 rpm.
8	Revolution Speed of Planetary Disk: Up to 425 rpm.
9	Material of grinding tools: stainless steel, tungsten carbide, agate, aluminium oxide, zirconium oxide, PTFE, Nylon etc.
10	Drive power: 0.25 KW.
11	Input voltage: AC220V, 50Hz.
12	Protection class: IP 30.
13	Certification: CE.
14	Setting of grinding time: Up to 99 hrs.
15	Interval operation: Yes.



Specification:- Homogenizer

1	Tissue Homogenizer:
	Capacity to handle wide range of samples from 0.5ml to 1000 ml.
	Light weight ergonomic design.
	Weight, max 0.6 kg
	It should be with powerful motor with minimum 175 watts.
	Quiet operation, max 72 db noise.
	Variable speed control from 5000 to 35,000 rpm.
	System should be quoted with probes/extension arm of diameter of 5 mm (0.2 - 5 ml) , 7 mm (0.5 - 50 ml) & 14 mm (5 - 1000 ml).
	Probes are 316 stainless steel with flurocarbon bushings.
	Tool kit, Clamp for stand mounting and instruction manuals should be supplied.
	Electrical requirement: 230V; 50/60Hz
	Warranty: minimum 1 year

Specification:- Ultrasonic Bath Sonicator**Specification for Bath Sonicator**

Tank Capacity:	14 Litres.
Tank Material:	SS 304.
Tank Size:	300 (mm) X 240 (mm) X 200 (mm).
Ultrasonic Power:	>350 Watts.
Dual Ultrasonic Frequency:	25 KHz & 45 KHz.
Enclosure:	SS.
Ultrasonic Generator:	High frequency built in MOSFET/IGBT based/SMPS.
Ultrasonic Transducer:	Imported PZT Sandwich type bonded at the bottom of the tank.
Input supply:	230 Volts; 50 Hz.
Programmable Timer:	1-99 minutes digital count down with display.
Power Adjustable:	40 - 100 %.
Standard accessories:	Basket-01 No, Input cord-01 No & Operating Manual-01
Heating Temperature:	Ambient +5°C to 80°C.
Warranty:	1 Year.



Specification:- Spectro colorimeter

Parameters	Specification
Short Term Repeatability - White	0.10 E*ab on white ceramics
Measurement Geometry	Diffuse 8°, DRS spectral Engine
Inter Instrument	CIE L*a*b* : Avg. 0.30 ΔE*ab
Light Source	Gas-filled tungsten lamp
Measurement Area	4mm – 14mm
Spectral Range	400nm – 700nm
Color Spaces	CIE L*a*b* CIE L*C*h*
Color Differences	CIE DL*, Da*, Db*, CIE DL*, DC*, DH*,
Pass / Fail	All Attributes of CIELab,
Industry Standard Indices	Whiteness, Yellowness, Opacity etc
Accessories for Reference panel	K bar coater Applicator pad One box Black and white paper
Additional features	User Defined Screen Layouts Password Protection