



TEA RESEARCH ASSOCIATION

Re-Tender No. TRA-Tocklai/24-25/T-243 & T-244, Dated 24.09.2024

Sealed tenders in two parts (Technical bid & financial bid) are invited by the Director, Tea Research Association from reputed manufacturers / authorized dealers / importers for supply of Instrument/Equipments under NTRF funded Project at Tocklai Tea Research Institute, Jorhat - 785008, Assam. Both the bid documents are to be put in sealed envelopes separately super scribing the words "Technical Bid " & "Financial Bid" which are to be put together in the sealed envelope super scribing the Tender No. The details of instruments/equipments are shown as 'Annexure – A' enclosed herewith

Last date of issue/receipt of tenders:20.10.2024 up to 5.00 p.m.

Terms and Conditions:

1. **The tenderer should submit the following documents along with the tender:**
 - a) Dealership certificate/authorization certificate
 - b) List of users
 - c) Up-to-date sales tax/GST /income tax clearance certificate
- 2) **Earnest Money 2% (refundable)** of the quoted amount is to be deposited by the tenderer in the form of Bank draft/Bankers certificate in favour of "**Tea Research Association**"payable **at Jorhat.**
- 3) **Tender Document Cost (non refundable) of Rs.1,000/-** is to be deposited in the form of **separate Bank Draft** in favour of "**Tea Research Association** "payable **at Jorhat.**
- 4) Tenders must accompany with the product catalogues/ specification.
- 5) Tenderers must quote the warranty period of the product.
- 6) **Tenderers must quote the year-wise rate for CMC or AMC separately for a further period of 5 years beyond the warranty period.**
- 7) **Instruments / Equipments are to be delivered/installed FOR/CIP at Tocklai Tea Research Institute, Jorhat – 785008, Assam.**

TRA reserves the right to accept or reject the bids without assigning any reason thereof. The tender document can be obtained from the office of the undersigned during working days from Monday to Friday (8-30 am to 5.00 pm) or **may be down loaded from the website – www.tocklai.org.**

Tender should be accompanied by Tender Document Cost of Rs.1,000/- and Earnest Money 2% of the quoted amount, failing which the tender will be rejected.The drafts for EMD and Tender Document Cost should be enclosed with "Financial Bid" only. All tenders should be sent to the following address:

The Director,
Tea Research Association
Tocklai Tea Research Institute,
Cinnamara, Jorhat-785 008, Assam.

Annexure – A

SPECIFICATIONS OF EQUIPMENT AND INSTRUMENT

Sl. No.	Items	Unit No.	Specifications
1	Biosafety Class-II, A2 cabinet	01	<ol style="list-style-type: none">1. The cabinet should be advanced microprocessor control, which supervises the operation of all cabinet functions. Total accumulated operating hours of the unit, the total UV work hours and the filter running time, estimated residual lifetime of the HEPA filter.2. The model offered should be at least 4 meter wide in dimension.3. The cabinet should have energy-efficient electronically controlled DC blower motor.4. The motor must be able to automatically adjust the airflow speed without the use of a damper to ensure continuous safe working conditions.5. Cabinet must use a pressure sensor (rather than an anemometer) to detect pressure drop across the supply filter.6. Clear visual and audible alarms are emitted from the device if the down flow, inflow, or other parameters like blower failure, Incorrect window position are not at rational settings and the operator is at risk of exposure to biohazardous materials.7. The cabinet noise level must be less than <63 dB(A)8. The cabinet must automatically reduce the fan/blower motor speed to 30% when the front window sash is in the closed position to ensure reduced energy consumption when the cabinet is not in use.9. Programmable UV light enables <i>timed sterilization</i> to run to be preset before work commences. UV light must be programmable to allow for specific exposure times from 0 to 24 hours.10. The Bio Safety Cabinet should include LED light with a power of >120 fc with Brightness level adjustment11. The Cabinet should have provision to fit taps for Vacuum, Water, and Non-combustible gas.12. The Biosafety Cabinet should be NSF certified with a listing on the NSF website.13. The Biosafety cabinet should incorporate a HEPA filter of utmost high efficient class with minimum efficiency of 99.995% at 0.3 µm particle size.14. The cabinet should be provided with a fixed/adjustable Height Stand, UV Light and one set of detachable arms rests, and one / two electrical outlets.15. The Drain Pan of the BSC should be made of Stainless Steel. The drain pan should not be painted, or powder coated.16. Port provision for clean and safe routing for vacuum tubing and cables through the side of the BSC for improved organization and work efficiency17. There should be UV protected sliding front sash.18. The cabinet should be offered with following

			<p>accessories: at least 2 nos. UV lamps, Cabinet should include Rear cover kits for flat and smooth enabling easy cleaning for clean room suitability</p> <p>19. Preference will be given to manufacture with good nos. (details to be submitted) of Installation in North East and service person based in North East (details with Name, mobile no and location to be submitted).</p>
2	CO2 Incubator	01	<ol style="list-style-type: none"> 1. Should have at least 150 L or more of internal capacity. 2. User friendly control panel with large LED displays for Temperature and CO2 data 3. Direct heating temperature control system providing superior uniformity and quicker response for temperature and humidity parameters 4. Independent over temperature protection with independent temperature sensor 5. Unique Auto-Start function facilitating 6. Interior must be built of corrosion resistant material ideally with copper built-up. 7. Should have separate single inner glass door for monitoring of samples without disturbing conditions of the chamber 8. System should be supplied with double stage Co2 Regulator and 31 kg Co2 Cylinder 9. A CO2 resistant shaker compatible with the system must be supplied 10. The shaker must have external control box with LED display for easy adjustments without the need to open the chamber door. 11. The LED display must have timer and Speed range of 30-300 rpm with 19 mm orbital diameter 12. Device should include Universal attachment with flask clamp kit of 2 no. of 100 mL flask clamp, 4 no. of 250 mL flask clamp, 4 no. of 500 mL flask clamp, 2 no. of 1 L flask clamp and 2 no. of 2 L flask clamp. 13. Warranty period of 1 year from the date of installation. 14. Should be supplied a suitable voltage stabilizer preferably Fuji electric or Servo make. 15. Preference will be given to manufacturers with good nos. (details to be submitted) of Installation in North East and service person based in North East (details with Name, mobile no and location to be submitted).
3	Water Purification System	01	<p>Part 1 <u>Pre Filter Before Main Unit</u></p> <ol style="list-style-type: none"> 1. High Quality Pre Filter before Main Unit to counter the feed water contamination. 2. Must be manufactured by same equipment manufacturer as of pure & ultra pure water system. 3. No third party pre filtration will be accept 4. Pre-filter with Low pressure switch cuts off system which can able to take care high TDS up to 5000 ppm and high SDI up to 50 having 5 Micron and 1 Micron with DC diaphragm pump to boost water pressure from 0 to minimum 2.5 bar at approximately 120 L/Hr with noise levels of Less than 50 Db.

Two separate models should be there for Type- I and TYPE III systems

Part 2:

Main Unit Lab Grade Water purification System (Type III)

Feed water acceptance capability for main unit should be:

Conductivity: < 2000 μ S/cm
Fouling Index (SDI): up to 5
TOC < 2000 ppb
LSI < 0.3

Product Water and main unit should meet or exceed Type III water quality

- Pure water production rate > 40 Ltrs/Hr or more.
- Organics and particulates rejection > 99% or better
- RO recovery loop should be available.
- Rinsing valve should be available.
- Twist and lock mechanism for all the cartridges, so that user itself can replace it.
- Transparent mobile water tank of minimum capacity of 3 ltrs or more
- Water filling should not take more than 5-6 min to fill the tank full.
- Holder on tank for easy mobility.

Part 3:

Ultra-Pure Water (Type I) should meet or exceed the below mentioned parameters:

- Typical Water Delivery Flow Rate by an adjustable handset dispenser from Drop by drop to 1.6L/min.
- Ultrapure Water Resistivity (M Ω .cm at 25°C) :18.2 or better
- Microorganismes/bacteria (cfu/L): < 1 or better
- Particulates < 0.22 μ m (/mL) : None
- Pyrogen Levels (EU/mL) : < 0.001 or better
- RNase Level (pg/mL) : < 1 or better
- DNase Level (pg/mL) : < 5 or better
- Proteases : < 0.15 μ g/mL
- TOC (ppb): \leq 5 ppb
- Twist and lock mechanism for all the cartridges, so that user itself can replace it.
- Automatic recirculation mechanism should be available.
- Transparent 3.5 liter or more switch water tank.
- Holder on tank for easy mobility should be available.
- Main machine foot print size should not exceed 9 inches X 12 inches to avoid unnecessary lab space occupancy.
- The weight of the main machine should be lower

			<p>than or equal to 11-12 kgs for ease of maneuverability as per lab's water need.</p> <ul style="list-style-type: none"> • UV lamp- 185 nm and no need to replace this lamp for life time of machine. • Servo voltage stabilizer 1KVA <p>Certifications for Water System from OEM should be submitted with the tender:</p> <ul style="list-style-type: none"> • CE, cUL, FCC. • ISO® 9001-2015 and ISO® 14001-2015, and ISO® 50001-2018 • ASTM® D 1193-06, ISO 3696, CLSI. <p><u>Mandatory Documents Requirement:</u></p> <ul style="list-style-type: none"> • Product brochure to support the technical specifications must be submitted. All technical details must be available on the OEM's official website. • Minimum 20 appreciation letter of water purification system from any government organization in India • User list of minimum 50 installations of similar water systems of the quoted make must be submitted with user name, email id, contact number, organization name, Department. • Service should be directly from the manufacturer's engineer should be based at Assam, provide contact details. • OEM authorization must be provided in case of supplier or channel partner is bidding on behalf of OEM. • Warranty should be 1 year from date of installation.
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