



No.RARS /SZ(7)/2886/17(i)

Date:15/01/2022

E-TENDER NOTICE

E- Tenders are invited for the supply and installation of following Laboratory Instruments for Regional Agricultural Research Station(Southern Zone), College of Agriculture, Vellayani, as per the technical specifications and the terms and conditions mentioned below.

Specifications:

1. Automatic N Digestion, Distillation and Titration System

A. Automatic Macro Block PC Compatible Digestion System – Qty 2 Nos.

- Twenty Place 250 mL capacity PC Compatible Block Digestion System with all essential accessories
- 2 USB Ports in the motherboard, one for PC connectivity another for Memory stick for data storage
- Integrated auto sequencing of time/temperature domain > 50 programmes and > 10 ramps.
- Temperature controller should be isolated separately in a control tower to protect electronics from digestion heat zone and acid reaction zone of digester.
- Microprocessor temperature controller; Ambient to 450 °C, Accuracy: ± 0.5 ° C.
- Inbuilt data logger with real time clock, Inbuilt add-on safety PID controller for heater and block protection.
- Remote control module for wireless data monitoring & transfer to PC at a distance of 5-10 feet.
- Suction Assembly wall mounted on rear side of unit for safe removal of fumes & easy access to drain

B. Scrubber System – Qty 2 Nos.

- **Four stage acid neutralization scrubber inclusive of** Condensation with water condenser, Neutralization in alkali, Neutralization in water and Dissolution of trace acid fumes in raw tank water.

C. Automatic Distillation System – Qty 1 No.

- Auto sequencing Programmable Microprocessor based Triple Distillation System
- 7" Colour Touch Screen Display, No. of Samples: Three at a time,
- Independent stainless steel non corrosive steam generator, Expansion vessel, and water condenser and refilling,
- Programmable steps include Automatic dilution, KMnO_4 addition for available nitrogen, Automatic alkali addition, Steam injection, Process over indication with alarm.

- Auto reagent level sensor with alarm for reagents, Stainless steel non corrosive steam generator
- Reagents tanks wall mounted for easy handling and user's visibility.
- The control panel unit with inbuilt temperature controller, timer, mother board and SMPS should be isolated in separate control tower and housing to protect electronics from acid/alkali process area for longevity and safety of all components.
- **Equipment should have transparent view window to watch the distillation process.**
- Nitrogen level: 0.1 to 200 mg, Reproducibility: $\pm 0.1\%$ RSD, Recovery: $> 99.5\%$

Other Terms and conditions

- The bidder should provide a list of users in Government / PSU sector in Kerala and should have good track record of after sales service. Instrument shall strictly confirm to the specifications with relevant brochure and photograph/images
- **Warranty: Three years standard warranty from the date of installation and additional 2 -years AMC after warranty period so as to ensure 5 years trouble free operation of the equipment. The total price including AMC should be quoted.**
- **The bidder should assure onsite training for investigator and project staff as per requirement during the first 3 months period from the date of installation.**

2. Microwave digester

1. Vessel type- Solid TFM fluoropolymer construction for body, pressure seal and screw cap. Digestion vessels should be chemical resistant, capable of handling a wide range of acids and solvents like HNO_3 , HClO_4 , H_2SO_4 etc. Easy to clean.
2. Vessel number-16 or more, Full set of vessels and rotors to be provided as standard along with the equipment.
3. Volume- 60 mL or more
4. Pressure rating- 40 Bar or more
5. Overpressure protection- Metal Rupture Disc
6. Operating temp range- Ambient to 230°C or more
7. High resolution touch screen display
8. Microwave output power- Approximately 1500W peak output
9. Microwave power control- Unpulsed control over entire range, adjustable in 1% increments.
10. Temperature control- DTC, Direct Temperature Control; in real-time, measures the actual sample temperature in each individual vessel (Include at no additional charge)
11. Pressure control- DPC Direct Pressure Control; contact-free, optical sample pressure measurement system for reference vessel (Include at no additional charge)
12. Cavity and lid- stainless steel construction with heat-bonded fluoropolymer (PFA - Polyfluoroalkoxy) coating.
13. Oven access- Rear hinged top lid, samples inserted from above for easy sample access.
14. Digestion vessel insertion: Simple, rugged vessels placed individually in the oven in any amount from 2-16.
15. Overpressure venting facilities
16. Noise level- <70 dBA

17. HF resistant

18. Output power: 1800 watts or better

Other Terms and conditions

- The bidder should provide a list of users in Government / PSU sector in Kerala and should have good track record of after sales service. Instrument shall strictly confirm to the specifications with relevant brochure and photograph/images
- **Warranty: Three years standard warranty from the date of installation and additional 2 -years AMC after warranty period so as to ensure 5 years trouble free operation of the equipment. The total price including AMC should be quoted.**
- **The bidder should assure onsite training for investigator and project staff as per requirement during the first 3 months period from the date of installation.**

Instructions to the bidders

- Bid documents including the Bill of Quantities (BoQ) can be downloaded free of cost from the e- Government Procurement (e-GP) Website www.etenders.kerala.gov.in.
- All bid documents are to be submitted online only and in the designated cover(s)/envelope(s) on above website.
- Price Bid shall be submitted only through online.
 - Rates quoted should be valid upto 31/03/2022.
 - Tenders not stipulating period of firmness of rates and with price variation clause and/or subject to prior sale condition are liable to be rejected.
 - The equipment should be delivered and installed at the expenses of the successful bidder.
 - Rate quoted should be inclusive of all charges such as packing, forwarding, freight, loading/unloading/handling or installation charges and Government duties leviable, if any.
 - The supplier has to make his own arrangement for the ordinary / special tools, machinery, and other consumables required for successful completion of installation and testing.
- **Payment of fee:** Tender submission fee & EMD shall be remitted online during the time of tender submission.
- **Scanned Documents to be submitted online:**
 - Company Data sheets, Brochures & other documents such as relevant technical literatures, drawings, pamphlets containing all the relevant technical specifications of the equipment duly signed by the bidder on each page.
 - Tender form: Each and every pages of the tender form should be attested after reading the conditions provided.
 - Duly filled and signed preliminary agreement of the bid executed in Kerala stamp paper worth Rs.200/-.
 - Bids received online without the scanned copy of preliminary agreement will not be considered.
 - Users list of the equipment, if any.
 - Copy of up-to-date GST registration certificate & PAN of the bidder
 - Supporting document regarding service support.

- Authorization certificate from the manufacturer if the bidder is a dealer.
 - Valid EMD exemption certificate from the Store Purchase Department, Govt. of Kerala, if the firm claims EMD Exemption.
 - Undertaking to the effect that the bidder is not Debarred/ Blacklisted or Banned from any University/ Government Institute / PSU.
 - Purchase Order and performance certificate of the quoted model of Equipment from three reputed customers, preferably University/ Government Institute / PSU, if any.
- As per DSIR registration, the University is eligible for relaxation in GST as per Notification No.45/2017 Central Tax (Rate) dated 14.11.17 & Notification No.47/2017 Integrated Tax (Rate) dated 14.11.17. Necessary documents for availing GST exemption will be provided to the successful bidder.
 - **Quoting of equipment:** Only the best model fitting the specification must be quoted.
 - Vendors if quoted for lower end model while the same manufacturer is having better model meeting the above tender specifications, the technical committee shall take decision to disqualify.
 - The products should be nationally / internationally branded and CE certified.
 - The bids should be sent only for equipment model available in the market and supplied to a number of customers. Equipment with market standing proven quality and durability only will be entertained.
 - **Service:** The firms/companies/ bidder should ensure on-site service support for the equipment.
 - The maximum period required for delivery and installation of the article should be mentioned.
 - Availability of the spares for the entire instrument for a period of at least 10 years should be ensured.
 - If any license or permit is required, Bidders must specify in their tender and also state the authority to whom application is to be made.
 - Details required for e-payment (Details of bank account having core banking facility and e- mail address of the bidder) shall be furnished along with the tender.
 - Payments will be made only after satisfactory supply and installation of the equipment.
 - **Warranty & AMC: As mentioned in the item wise specification.**
 - If the Supplier, having been notified, fails to rectify the defect(s) within one to two weeks' time, the warranty will be extended by the period for which the instrument lying idle without repair.
 - All parts of the instrument, accessories, and supporting instruments should be covered under the warranty.
- Bidders not accompanied by these details will be rejected.
 - Associate Director of Research, RARS (SZ), College of Agriculture, Vellayani shall have no obligation to convey reason for rejection of any bid. It shall be open for Associate Director of Research, Vellayani to reject even the lowest bidder in the interest of the University and no reason need be given thereof.

- The undersigned shall not be responsible for any failure, malfunction or breakdown of the electronic system while downloading or uploading the documents by the Bidder during the e-procurement process.
- On receipt of purchase order, the supplier shall execute an agreement in Kerala stamp paper worth Rs.200/- at own cost and furnish a Performance Security of 5% of the cost. The format of the agreement can be downloaded from the above website.
- Withdrawal from the tender after having accepted or failure to supply within the specified time or according to specifications will entail cancellation of the order and attract legal procedures as per the agreement.
- All subsequent Government orders connected to tenders and any revision in the rates of taxes would also be applicable to this tender.
- In addition to these all other General Conditions annexed in the Store Purchase Manual of Government of Kerala are also applicable to this tender.

Tender details	
Tender inviting Authority	The Associate Director of Research, RARS(SZ), College of Agriculture, Vellayani
Location of supply and installation	Department of Soil Science & Agricultural Chemistry, College of Agriculture, Vellayani, Thiruvananthapuram – 695 522
Date of Publication of Tender	15/01/2022 5.00 pm
Last Date and Time of Receipt of Tenders	05/02/2022 5.00 pm
Date and Time of Opening of Bid	07/02/2022 2.00 pm If the tender opening date happens to be on a holiday or non-working day due to any other valid reason, the tender opening process will be done on the next working day at same time and place.
Earnest money deposit (EMD)	26,000/- (Rupees Twenty six thousand only)
Tender submission fee	4602/- (inclusive of GST)
Validity Period of Bid	Upto 31/03/2022
Period of supply and installation	Within 21 days from date of issue of supply order
Mode of submission of Bid	Online through the website www.etenders.kerala.gov.in only
Performance Security	5% of the bid amount
Submission of performance security	Within 21 days from date of issue of supply order

Further details on the tender process can be had from the office of Associate Director of Research, RARS(SZ), Vellayani during the office hours between **10.00 am and 5.00 pm.** (Mob:9995341071).


Dr. Roy Stephen
 Associate Director of Research