

### KERALA AGRICULTURAL UNIVERSITY Regional Agricultural Research Station (SZ), Vellayani

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No.RARS /SZ(5)/ 3112/19

Date: 21/01/2022

### **E-TENDER NOTICE**

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

## 1. Manual rotary microtome with specimen feed system and accessories

### **Specifications**

- Manual Microtome with specimen feed system.
- Vertical cross roller bearings mechanism for maintenance free operation.
- Section thickness feed to the specimen from 1-60 μm with increments of 0.5 microns from 0 to 2 microns, 1 microns from 2 to 10 microns, 2 microns from 10-20 microns, 5 microns from 20-60 microns.
- Specimen feed between 25-30 mm and vertical stroke length between 50-70 mm, Specimen retraction between 200-250 μm in the return stroke.
- Gravitational force compensation system of handwheel to obtain a uniform stroke for excellent and perfectly stretched sections.
- The specimen retraction mechanism switch off when not required.
- Mechanical trimming thickness selection of 10 and  $50\mu m$  .
- Precise specimen orientation between 5°-10° in x, y, z with anti tilt feature.
- Knife holder base with lateral displacement Disposable Blade Holder.
- Hand wheel lockable at any position by a quick locking system.
- Additional 12 O' Clock locking by simply pulling the handle.
- Lateral displacement to the knife base.
- Optional mechanical trimming function in two steps of 10 and 30 microns.
- Slot cover to protect the interior of the instrument from sectioning debris.
- Coarse feed wheel turn direction: User selectable.
- The instrument can be used optionally with either clockwise rotation or counter clockwise rotation for the coarse feed wheel.
- Entering home position with horizontal cylinder Operation.
- Power Base stability.
- Quick exchange specimen clamp.
- Dimensions (W x D x H): Maximum 450 mm x 500 mm x 300 mm.
- Weight: (without accessories): Approx. 30 kg.
- Minimum three year warranty with 2 year AMC should be included in the quoted price.

# 2. <u>Bench top Multiparameter pH / Conductivity / Total Dissolved Salts / Salinity / Ion / Temperature Meter</u>

#### **Specifications**

- Choose auto-calibration with preset values for quick easy calibration, or manual multi-point calibration for greater accuracy.
- Easy standardization with auto-standardization feature detect the exact cell constant value of the electrodes with the press of a button.
- Up to 6-point calibration with auto-buffer recognition.
- High performance 4-cell Conductivity probe.
- Quick, easy electrode diagnosis with the effective cell constants display.
- Non-volatile memory up to 500 data points time and date-stamped for GLP compliance.
- Bi-directional easy data transfer to computer.
- Cal-due alarm and limit alarm alerts when reading falls out of range.
- Auto-logging function for convenient continuous monitoring.
- Password protection for setup and calibration,
  - pH Range: -2.00 to 20.00 pH, Resolution / Accuracy-0.1 / 0.01 / 0.001 pH / ± 0.002 pH + 1 LSD, mV Range- ± 2000 mV, Resolution / Accuracy:0.1 mV /±2 mV, Number of pH Calibration Points: 6 Points, Buffer Sets: USA, NIST, DIN, User 1, User 2, Custom.
  - Ion Range: 0.001 to 19999 ppm (±2000 mV), Resolution / Accuracy:2 or 3 digits / 0.5 % full scale (monovalent); 1 % full scale (divalent), No. of Ion Calibration Points: 2-8 points.
  - Conductivity Range:  $0.050~\mu S$  to 500.0~m S, Resolution / Accuracy:  $0.01~/~0.1~\mu S$ ;  $0.001~/~0.01~/~0.1~m S \pm 1~\%$  full scale, No. of Conductivity Calibration Points: 5 points (1 point per range).
  - TDS Range: 0.050 ppm to 500 ppt (@ TDS factor 1.00), Resolution / Accuracy: 0.01 / 0.1 ppm; 0.001 / 0.01 / 0.1 ppt ±1 % full scale, No. of TDS Calibration Points: 5 points (1 point per range).
  - Salinity Range: 0.0 to 80.0 ppt, Resolution / Accuracy: 0.01/0.1 ppm; 0.001/0.01/0.1 ppt ±1 % full scale.
  - Resistivity Range:  $2.000~\Omega$  to  $20.0~M\Omega$ , Resolution / Accuracy:  $0.01~/~0.1~\Omega$ ;  $0.001~/~0.1~k\Omega$ ;  $0.01~M\Omega\pm1~\%$  full scale
  - Temperature Range: 0.0 to 100.0 °C / 32.0 to 212.0 °F, Resolution / Accuracy:  $0.1^{\circ}$  C  $(0.1^{\circ}$  F);  $\pm 0.3^{\circ}$  C  $(+0.5^{\circ}$  F).
  - Coefficient (Per °C): Linear & pure; 0.000 to 10.000 %, Normalization: 15.0 to 30.0 °C / 59.0 to 86.0 °F, Compensation: ATC / MTC, GLP: Yes.
  - Memory: 500 data sets, Output: RS 232C (via cable), Electrode: Included, Single junction glass pH electrode, Conductivity Electrode, Built-in Electrode Arm: Yes, Power Requirements: Included, 100/240VAC SMPS Power Adapter, 9V, 6W
  - Minimum warranty 3 years on meter against manufacturing defect and 6 months for electrode and two year AMC should be included in the quoted price.

### 3. Digital Handheld Refractometer

- Liquid Crystal Display (LCD) for measured value, temperature and battery indicator.
- The prism located at the centre of the sample stage.
- With battery case cover and strap holder.
- Brix / measurement reading: 0-53 % or more wider range and temperature: 9.0 to 99.9°C.
- Minimum Resolution: brix  $\pm 0.1\%$  and Temperature  $\pm 0.1$ °C.
- Minimum Measurement Accuracy: brix  $\pm 0.2\%$  and Temperature  $\pm 1$  °C.
- Measurement temperature: 10-100°C with automatic temperature compensation, Ambient temperature: 10-40°C.
- Sample volume: 0.3 ml or more.
- Measuring time: 3 seconds.
- International protection class: IP65 water resistant.
- Dimensions: Ideal 55 (W) x 31 (D) x 109 (H) mm; Weight: not more than 100g.
- Power supply AAA alkaline battery x 2, Battery life: min. 10,000 times measurement.
- Minimum three year warranty with 2 year AMC should be included in the quoted price.

#### **Instructions to Bidders**

- Bid documents including the Bill of Quantities (BoQ) can be downloaded free of cost from the e- Government Procurement (e-GP) Website <a href="www.etenders.kerala.gov.in">www.etenders.kerala.gov.in</a>.
- All bid documents are to be submitted online only and in the designated cover(s)/envelope(s) on above website.
- Bidder should be a reputed Original Equipment Manufacturer (OEM) or Authorized dealer of OEM, who is having an Authorization Certificate from the OEM to participate in the tender. Certificate from the OEM for sales and service to be produced.
- Price Bid shall be submitted only through online.
  - Rates quoted should be valid upto 31/03/2022.
  - O 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:
  - O 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.
  - O Tender form: Each and every pages of the tender form should be attested after reading the conditions provided.
  - O 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
- Users list of the equipment, if any.
- Copy of up-to-date GST registration certificate & PAN of the bidder
- o Supporting document regarding service support.
- Authorization certificate from the manufacturer if the bidder is a dealer.
- O Valid EMD exemption certificate from the Store Purchase Department, Govt. of Kerala, if the firm claims EMD Exemption.
- O Undertaking to the effect that the bidder is not Debarred/ Blacklisted or Banned from any University/ Government Institute / PSU.
- O 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
- 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
  - O The products should be nationally / internationally branded and CE certified.
  - O 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. Should have a factory trained service engineer available in Kerala. (For the
- The maximum period required for delivery and installation of the article should be
- Availability of the spares for the entire instrument for a period of at least 10 years should be
- 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 email address of the bidder) shall be furnished along with the tender.
  - o Payments will be made only after satisfactory supply and installation of the

# Warranty & AMC: As mentioned in the item wise specification.

- o 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.
- o All parts of the instrument, accessories, and supporting instruments should be
- 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.

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Tender details	
Tender inviting Authority	The Associate Director of Research,
	RARS(SZ), College of Agriculture, Vellayani
Location of supply and installation	Department of Plant Pathology,
	College of Agriculture, Vellayani,
2	Thiruvananthapuram – 695 522
Date of Publication of Tender	21/01/2022 5.00 pm
Last Date and Time of Receipt of	10/02/2022 5.00 pm
Tenders	
Date and Time of Opening of Bid	11/02/2022 5.00 pm
	If the tender opening date happens to be on a holiday or non-
4	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)	7500/- (Rupees Seven Thousand and Five Hundred only)
Tender submission fee	1,770/- (inclusive of GST)
Validity Period of Bid	90 days
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:8547195426).

ASSOCIATE DIRECTOR OF RESEARCH

RARS (SZ)

COLLEGE OF AGRICULTURE, VELLAYANI
THIRUVANANTHAPURAM - 695 522