



# BIDHAN CHANDRA KRISHI VISWAVIDYALAYA

COLLEGE OF AGRICULTURE, SUSUNIA  
CHHATNA, BANKLURA, WEST BENGAL.

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## Notice Re E-Tender


The Principal Investigator project entitle "Development of Soil, Plant and Water Testing Laboratory for Sustaining Soil Health and Agricultural Productivity in the Red & Laterite Zone of West Bengal" **College of Agriculture, Susunia, Chhatna, Bankura(Extended campus of BCKV)**are invited online quotations from the bonafide suppliers/ vendors for supplying the different Instruments as per pacifications stated below within **fourteen (14)days of publication**. Please mention terms & condition clearly against each item, if any, for supplying the Instruments.

- i) Price: The price of instruments including the imported ones should be quoted in each unit (including taxes and duties etc). However,quoted rates must be for destination including packing, insurance and delivery charges up to **College of Agriculture, Susunia, Chhatna, Bankura(Extended campus of BCKV)**West Bengal with satisfactory of good condition.
- ii) EMD: Vendors are required to pay the Demand draft amounting Rs. 10000/-(Rupees ten thousand) only (**xerox copy**) as specified along with their quotations. Without EMD quotations will not be considered for technical comparison. Demand Draft must be in favour of "**Bidhan Chandra KrishiViswavidyalaya**" payable at Kalyani (IFSC: SBIN0001082). Supporting document regarding exemption of demand draft must be submitted.
- iii) Supporting Documents:
  - a) Bid papers should accompany authorization certificate from original manufacturer, trade license, GST registration etc.
  - b) Photocopy (Self attested) of the original supporting document in favour of the specification – claim for each item must have to be submitted separately.
  - c) User list along with certificate from reputed users also need to be submitted.
  - d) Photocopy of supporting document of assured after sale service in Eastern India and availability of spare parts need to be submitted.

Price bid of the vendors will be compared only if technical specificity as appended against each item is fulfilled. The Viswavidyalaya reserves the right to accept or reject any tender without showing reason.

**N.B : Please read the carefully terms and conditions of items.**

Chairman, CTC, BCKV

  
20.1.2023  
Associate Dean  
College of Agriculture, Susunia  
(Extended Campus of BCKV)  
Chhatna, Bankura

*Librarian  
for upload the  
tender in BCKV website  
20/1/23  
for sign*

Sl. No.	Name of Instruments	Specification
1	<b>Environmental Shaker</b>	Outer ms powder coated , inner ss304 , vetical model , 10x250ml , 3 no ss ware mesh tray ,shaking speed 40-370rpm,vfd controlled (with outpully)temp-4-60 degc , humidity-45-95%, touch screen hmi +iot+ plc+rfid lock based (temp+humidity+rpmgraph,data analysis+history-3yrs+rs 485 interface for data print, software) all should be in one screen& controlled. Product should be iso9001-2015,ce certified
2	<b>Horizontal Autoclave</b>	Redial locking double walled outer ss304 , inner ss 304, capacity-52 ltr,with boiler, automatic(programmable sterilization timmer high temp safety alarm, automatic cycle abortion at high temp limit, computed saturated stem pressure indication, independents air exhaust and sterilization set points with rs485 interface with 21cfr software for pc recording. Product should be iso9001-2015,ce certified
3	<b>Hot Plate</b>	Size 420 x 320 x 130 mm Ht. Weight 9 kg, Voltage 230v (50Hz),Temperature 250°C maximum Uniformity +/- 2°C.Temperature rise 6°C per minute
4	<b>Laminar Air flow chamber</b>	design so as to meet the requirement of us federal staandard209b, class 100, ulpa filter 99.99%, moc-outer ss304, inner table –ss304(polish), uv light , prefilter,digitalmagnehilic, size-2x2x2 ft; Product should be iso9001-2015,ce certified
5	<b>Mechanical Soil Auger</b>	<p>Sample ring kit, standard set to a depth of 2 m For soil sample rings Ø 60 mm. Soil sample ring kits are used for a variety of tests, including bulk density determination of soil. Soilsamplerkits</p> <p>The various sets are different from each otherbecause of the ring holder applied, the diameter ofthe rings connection, the selected and the samplingmethod. The sample sets with the postfix SA are applied tofill the soil sample rings in soft soils above thegroundwaterlevel.</p> <p>The samples can be taken on the surface, in boreholes or in profile pits. The open ring holder in thisset is fitted with a bayonet connection and is drivenintothesoilmanually.</p> <p>The set, among other items, contains: an open ringholder,anEdelman-andaRiversideauger,ahandle and extension rods, an aluminium casewithsoilsamplerings,variousaccessoriesandacarryingbag.</p> <p>ThesamplesetwiththepostfixSAcanbeobtainedforsoilsampleringswithadiameterof 53and60mm.Themostcommonlyapplied(standard)diameteris53mm.</p> <p>Thesearethenusedfor,forexample:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Themoisturecontentatvariousmoisturetensions,fromwhichapF-curvecanbemade.</li> <li><input type="checkbox"/> The waterpermeability.</li> <li><input type="checkbox"/> Theairpermeability.</li> <li><input type="checkbox"/> Theweightbyvolume.</li> <li><input type="checkbox"/> Thedensity.</li> <li><input type="checkbox"/> Thesoil-water-airrelationshipatfieldcapacity.</li> <li><input type="checkbox"/> Theporedistribution.</li> <li><input type="checkbox"/> Theoxygendiffusion.</li> </ul> <p>Soilsampleringsaretransportedinspecialaluminiumcases,strongandresistantagainsthumidityandheat.</p> <p>Core cutter method according to DutchRAW standard 2000,test 4.4</p>

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		<p>The set with the equipment for the core cutter method is used for other applications as the soil sampling kits described before. This set is especially used for works of civil engineering construction. The core cutter method is used for the determination of the density and the soil moisture content of embankment- or foundation material according to the Dutch RAW-standard 2000.</p> <p>With a drop weight and a guide cylinder a special stainless steel sampling, with a diameter of 95.7x102mm and a height of 81.5mm, is hammered into the soil surface.</p> <p>The sampled material is transported to the laboratory, where after weighing and drying, the density and soil moisture content is determined.</p>
6	<b>Microwave digestion system</b>	<p><b>Internal Volume :</b> 67L. <b>of vessel :</b> 6</p> <p><b>Microwave Output :</b> 1800W, <b>Temperature range:</b> 100 ~ 250°C</p> <p>Operating pressure : 40 bar. Operating pressure : PTFE-TFM, Fluoro Polymer</p> <p>Batch Process Per Time : min. 1 pcs - max. 14 pcs. Microwave Frequency : 2450MHZ</p> <p>Display : 7 inch VGA color touchscreen</p> <p>Environmental Condition : Temperature -15 ~ 35°C, Humidity - &lt;85%</p> <p><b>Insulation class:</b></p> <p>Digestion Tank Material: TFM, PEEK, POM</p> <p>Minimum filling volume : 0.5ml. Minimum capacity of vessel : 30ml</p> <p>Temperature measurement : PT100. Max. Pressure : 1000psi (7MPa)</p> <p>Max. Temperature : 250°C. Power supply : AC220V/50HZ, singl. e-phase 10A</p> <ul style="list-style-type: none"> <li>• New Intelli-System designed for virtually effortless operation</li> <li>• Large Cavity to digest maximum number of samples at a time</li> <li>• Large 7-inch screen with integrated graphical UI eases the procedure from start to finish</li> <li>• Efficient and precise power delivery for optimum results</li> <li>• System provides Pre-Set Modes for the user's ease</li> <li>• Full Metallic Construction for structural strength &amp; rigidity</li> <li>• Conversion of conventional conditions to Microwave digestion parameters is provided by the system --- Safety/security and overshoot warnings for the user</li> <li>• Intelligent Internal Sensors cut-off system functioning for user's safety</li> <li>• Piezoelectric pressure sensor for accurate monitoring of Pressure inside the vessel during the digestion &amp; helps in a completed digestion process.</li> <li>• All vital information such as real-time temperature, Pressure, Digestion graphs are displayed.</li> <li>• --- Integrated step-by-step guidance for digestion</li> <li>• Optimized position of magnetron for low-trajectory Microwave introduction</li> <li>• Dynamic adjustment of Microwave power based on digestion avoids temperature overshoots. -</li> <li>• -- Non-pulse and continuous heating controllable in 1 watt increments</li> <li>• Temperature sensors provide for a stable temperature hold time</li> <li>• Multi Layer chemical resistance coating inside the cavity improves the service life and safety of system</li> <li>• Integrated Platinum (Pt) resistance temperature sensor for accurate measurement of Temperature inside the vessel</li> <li>• Outer vessel of four digestion systems are made of Ultra Strength Composite Fiber is invincible in anti-explosion, corrosion resistant, high temperature and pressure resistant</li> <li>• The machine owns self-test function, Automatic judge fault states to prevent accidents (such as abnormal sound check, abnormal temperature check and equipment running check etc.) Also it has door state monitoring function, the machine cannot start until the door is closed correctly</li> <li>• Inner vessel are made up of TFM which with stand High Temperature &amp; Acid Resistant</li> </ul>

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		<p>Every Digestion vessel is placed horizontally in the vessel frame, so the vessel frame has enough strength for balancing vertical expansive forces when the internal pressure rises continuously</p> <p>High power anti-corrosion axial fan which owns high efficiency cooling, Only 20 minutes to decreasing temperature of 200°C to 70°C</p> <p>With IOT all data should be on mobile/laptop through wifi</p>
7	<b>Precision drier</b>	<p>Precision dryer :outer ms powder coated , inner polish ss304 ,temp range-ambient to 250deg c +/- .1 degc, ss wire mesh tray 3 pc, blower , size-24x36x36, touch screen hmi + plc+rfid lock based temp. Controlled (temp graph,data analysis+history-3yrs+rs 485 interface for data print, software</p>
8	<b>Refrigerator-temperature control</b>	<p>Touch screen hmi + plc+rfid lock based temp. controlled ,outer should be ss 304 polish 1.6mm thick , inner 304 polish, temp range -4 degc to 40 degc , (temp graph,data analysis+history-3yrs+rs 485 interface for data print, software), insulation-puf internal capacity- 160ltr. Product should be iso9001-2015, ce certified</p>
9	<b>Top loading balance</b>	<p><b>Capacity:</b>220g to 6200g (depending on model)</p> <p><b>Minimum Display:</b>0.001g to 1g (depending on model)</p> <p><b>Linearity:</b>0.002g to 1g (depending on model)</p> <p><b>Calibration Type:</b>Manual</p>
10	<b>Vertical Autoclave</b>	<p>Outer SS, Inner SS(thick) , Capacity-40 Ltr , Automatic(Programmable Sterilization timer)</p> <p>High temp safety alarm, automatic cycle abortion at high temp limit, computed saturated steam pressure indication, independent air exhaust and sterilization set points with RS485 interface.</p> <p>Pressure-5-20psi . Product should be iso9001-2015, ce certified</p>
11	<b>Digital Room Thermometer</b>	<p>Measuring Parameters Relative Humidity, Temperature relative Humidity and Temperature</p> <p>Temperature 0 to +50 °C</p> <p>Accuracy_1 ±0.5 °C (at +25 °C)</p> <p>Resolution_1 0.1 °C</p> <p>Humidity 10 to 95%RH</p> <p>Accuracy_2 ±3 %RH</p> <p>Resolution_2 0.1 %RH</p> <p>Display LCD Display with size 2 lines</p> <p>Operating Temperature 0 °C to +50 °C</p> <p>Storage Temperature -40 to +70 °C</p> <p>Measuring Rate 18 Seconds</p>
12	<b>GPS Machine</b>	Standard Survey and Mapping type GPS

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