



ASSAM UNIVERSITY: SILCHAR

DEPARTMENT OF AGRICULTURAL ENGINEERING

INVITATION OF SEALED QUOTATIONS FOR HOT AIR OVEN, MUFFLE FURNACE AND MICROSCOPE

No. AUS/AE/PUR/2016/1, dated May 4, 2016

NOTICE INVITING QUOTATIONS

Sealed quotations for the supply of hot air oven, muffle furnace and microscope are being invited from interested suppliers within May 27, 2016. The quotations are to be addressed to

The Head,
Department of Agricultural Engineering
Triguna Sen School of Technology
Assam University, Silchar – 788011.

Bidders intending to quote for more than one item are requested to send separate quotation for each item. The quotations can be sent in one envelope but must be physically separable from one another.

If the bidder wishes to quote the item with a higher/superior specifications, it must be separately stated along with proof that the specification is higher/superior. In no case they should quote for lower/inferior specification.

Being an Educational Institution, Assam University, Silchar is entitled for Custom and Central Excise Duty exemption for procurement of Scientific Equipments etc. The interested party while quoting rates should indicate the Excise Duty component and Tax component separately.

The selected bidder after receipt of supply order has to deposit 7.5% of the supply order value in the form of FDR valid for 18 months from the date of tender from any Nationalized bank in favour of the Finance Officer, Assam University, Silchar payable at Dargakona, Silchar as security deposit. In addition, the earnest money deposited shall also be retained as security deposit. The security deposit will be released only after completion of warranty period.

The successful bidder shall have to supply the materials strictly as per the configuration, make/brand as stated in the supply order and shall have to complete the supply within 30 days from the date of issue of order/or as per mutual agreement in full set basis and the items are required to be installed in the Laboratory. Otherwise, the order shall automatically stand cancelled and the security deposit of the bidder shall be forfeited. No communication in this regard will be entertained. User manuals are also to be provided along with the items supplied.

The successful bidder shall have to provide comprehensive onsite warranty support as per specifications from the date of successful installation. If any breakdown, non-functioning or malfunctioning of the machine/equipment occurs during the warranty period, the supplier shall have to attend to the complain within 24 hours (or in next working day in case of holidays) after receiving verbal/written/e-mail complain and will make the machines functional free of cost. In case the system has to be taken out of the University campus, the bidder should provide a standby support system/peripheral with same or higher/new configuration/specification.

If the vendor/supplier/bidder fails to attend to the breakdown calls made within the warranty period, a portion or whole of the security deposits as decided by the University shall be forfeited.

(Prasanna Kumar G.V.)

Head

Department of Agricultural Engineering
Triguna Sen School of Technology
Assam University, Silchar – 788011.

**TENDER FOR SUPPLY AND INSTALLATION OF HOT AIR OVEN, MUFFLE FURNACE AND
MICROSCOPE TO THE DEPARTMENT OF AGRICULTURAL ENGINEERING, ASSAM UNIVERSITY,
SILCHAR – 788 011.**

To
The Head
Department of Agricultural Engineering
Assam University
Silchar – 788 011.

Sir,

With reference to your Tender Notice No. AUS/AE/PUR/2016/1, dated May 4, 2016, posted at Assam University Website for supply of Office items and Laboratory Equipments to the Department of Agricultural Engineering, Assam University, Silchar – 788011, I/we hereby submit the bond.

I/we confirm that I/we are the owners/authorised person to offer you the item as per the desired specifications.

SL. NO.	ITEM DESCRIPTION	QUANTITY	UNIT COST	TAX	RATE	TOTAL AMOUNT
1	Hot air oven	1 No.				
2	Muffle furnace	1 No.				
3	Microscope	1 No.				

Date :

(Signature of the Bidder)

SEAL

Address

Ph.

Mobile :

FAX

PAN NO.

(Use extra sheet for additional information, if necessary).

Specifications of the Hot air oven, Muffle furnace and Microscope

Item 1: Hot Air Oven

Oven with three sides heating elements. Inner chamber of highly polished stainless steel. Outer chamber of mild steel sheet duly pre-treated in seven tanks process for surface treatment & finished with durable powder coated paint. 75 mm gap between the walls is filled with special grade glass wool for proper insulation and to avoid heat losses. Inner chamber fabricated with ribs to adjust shelves to any convenient height. Supplied with 2 or 3 removable shelves. Shelves are made of polished SS Sheet. Insulated door is fitted with heavy hinges with a special design spring – loaded door closing device. Door gasket made of synthetic rubber compound instead of Asbestos. Heating elements are made of high grade imported Ni chrome wire which are insulated inside the porcelain beads and are generally placed suitably in Air Path for uniform temperature all over the space.

Temperature is controlled by an electronic digital temperature controller-cum-indicator, provided with air circulating fan for providing homogenous temperature throughout the chamber with wide temperature 50°C to 300°C (+/- 1°C) oven for various applications. Air ventilator ports provided on both sides at top to ventilate, gases and fumes if any.

Control Panel :The equipment provided with a panel having a digital temperature control knob. ON/OFF switch, two pilot indication lights and provision for fixing the TIMER with alarm. Supplied with cord and plug. Suitable to operate on 220 V single phase, 50 Hz, AC supply.

Inner Chamber: 605Wx910Hx605D (mm) S.S. (304 grade)

L shaped Thermometer: Temperature to be adjusted with reference to thermometer.

Item 2: Muffle Furnace

High Temperature muffle furnace.

Inside Chamber Size : 6" x 6" x 6", 3.6 L approx with swing aside door at the front.

Furnace construction: (i) Double shell steel case with cooling fan to keep outside case cool.

(ii) High purity alumina fiber insulation for max. energy saving

Heating element: The chamber section should be heated by 6-8 Super Kanthal Molybdenum disilicide heating elements (Super 1800 grade MoSi_2) suspended in a chamber made of high temperature refractory fiber lined with a combination of ceramic fibre blankets.

Standard working temperature: 1600°C (continuous)

Maximum working temperature: 1700°C (< 3 hours):

Temperature control: The temperature controller should be a PID automatic control power control and programmable with necessary safety features.

Heating rate: The furnace should be of fast heating type with the maximum attainable temperature should reach as a ramp function in less than one hour.

Temperature accuracy: +/- 1.0°C

Thermocouple: Pt. Pt. Rh. Thyristor controller will be provided along with the furnace to measure the temperature with Recrystallized alumina sheath & connecting holder complete set.

Cooling fan / air circulation: Attached with Furnace, Provided inside the control unit to protect Costly component.

Maximum power: upto 8 kW.

Certificate: CE certified

Along with the furnace one set of the following accessories should be provided

Description	Quantity
Al ₂ O ₃ Sample Plate	1
Al ₂ O ₃ Furnace Door Block	1
Protection Glove	2 pairs
Crucible Clip	1 pair
Crucibles	6

Item 3: Microscope

Total Magnification: 40-1600X Viewing Head: Compensation free Binocular Sidentopf Head inclined at 30° rotatable, Antimould 360°.

Eyepiece: WF10X /20mm, P16X pair. Quadruple Nose Piece.

Semi plan Achromatic Objective 4X, 10X, 40X(SL), 100X (SL) oil.

Double layer Mechanical Stage 140 x 140 mm / 75 x 50 mm. Coaxial Coarse & fine focusing adjustment system, Moving range 23mm, fine division 0.002mm. Abbe type 9 eproduci NA 1.25 with IRIS Diaphragm & Filter. Built in Illumination Halogen lamp 6V 20W brightness, Adjustable Intensity controller.

Focusing lock: Focusing lock is provided with the coarse focusing Knob. It is used to arrest the upward movement of the stage so as to eradicate the damage of slide and objective lenses.

Optional attachments: Drawing attachment with eye piece set or multi viewers.