iCEIB

Inter University Centre for Evolutionary and Integrative Biology
University of Kerala
Kariavattom, Thiruvananthapuram

NOTIFICATION

Ref no:*i*CEIB/Pur/EQP/Ten007/2022 **dated :03 August 2022**

Competitive tenders are invited from the reputed firms/ manufactures/distributors for the supply of following mentioned equipments in the *i*CEIB, University of Kerala. The tenders shall be submitted to the Hon. Director, Inter-University Centre for Evolutionary and Integrative Biology (*i*CEIB), University of Kerala, Kariavattom campus, and 695581, Thiruvananthapuram, Kerala on or before **25th August 2022 at 3.30pm.**

1.	Name of the Equipment	**1.Microtome** **2.Water bath** **3.Rotary Evaporator**
2.	Documents to be submitted.	Technical Bid 1. Address and details of the firm 2. GST registration details 3. Technical details 4. Any other relevant information Financial Bid 1. Financial Quote
3.	Last date of receipt of tender/Bid closing	25/08/2022-3.30 PM
4.	Date and time of Opening Bid	26/08/2022-10.30 AM

Specifications

1.Microtome

- Type: Manual, Mechanical
- Operating Temperature Range:+18°C to +30°C
- Section thickness Range:1 - 60 µm
- Setting Values:1 - 10 µm (in 1 µm increments)
    - 10 - 20 µm (in 2 µm increments)
    - 20 - 60 µm (in 5 µm increments
- Hand wheel Balance System: Yes
- Hand wheel Lock / Brake:2 Mechanical Locks
- Safety Hand Wheel: N/A
- Specimen Feed: approx. 24 mm ±2 mm
- Vertical Stroke: 70 mm ±1 mm
- Large Standard Clamp: 55 x 50 x 30 mm
- Super Cassette Clamp: 68 x 48 x 15 mm
- SPECIMEN RETRACTION
- In Manual Sectioning Mode: Approx. 40 µm (can be turned off)
- SPECIMEN ORIENTATION
- Horizontal: ± 8°
- Vertical: ± 8°
- Coarse Feed Wheel Turn Direction: User-Selectable - Clockwise or Counter-Clockwise
- Waste tray Type : Standard
- Waste Tray Volume : 1400 ml
- Blade holder Type :2-in 1 for high and low profile blades
- North-South Movement:± 24 mm
- East-West Movement :N/A

2. Rotary Evaporator

- Rotary evaporator should have flask capacity of 3-5 litres.
- It should be supplied with 1 litre evaporating & receiving flask.
- It should be compatible with 5 litre evaporating flask with optional 5 litre heating bath.
- Instrument should have seal life indicator & replacement alarm
- Should have variable speed from 20 to 280 rpm.
- Should have vertical condenser with cooling area of minimum 1200 sq.cm.
- Condenser should have PTFE feed stop cock for easy handling & avoid breakage.
- Should be equipped with flask ejector for easy removal of jammed evaporating flask.
- Glassware should have standard joints S35, B29 & threaded GL14 Nozzles.

a) Heating Bath:

- Bath should be an circular-shaped seamless vessel for safe & convenient immersion offlask
- Temperature range up to 200^0C.
- Options of Oil & Water mode with control accuracy of ±2 & $\pm1^0$C.
- Effortless lateral moment of bath with reference scale to adjust bath according to sizeof evaporating flask.
- Floating Overshoot Alarm
- Over-temperature cut-off
- Bath fill volume – 5 litres

Automation:

- Touch-screen controlled display operation that allows precise display & control of all processes & set parameters like heating bath temperature, rotation speed, process timer, Lift up down position control & selection for lift speed etc.
- At elapse of timer heating, rotation should be stopped & lift automatically raised to top position.
- Should have rotation speed of 20-280 RPM & facility for bidirectional /reversible rotation for evaporating flask to enable efficient & uniform evaporation.
- Should have facility for selecting solvent from in-built solvent library for the routinelyused solvents, so that controlling parameters are set automatically according to solvent selection.
- Solvent laboratory should have facility to enter at least three USER SETTABLE

solventparameters.

- Auto lift in case of power failure.
- Should display vapor temperature
- Should have seal life indicator & replacement alarm
- Should have Stop key on screen to stop all process instantly.

b) Chilled Water Circulator - CFC- free, Refrigerated:

- Reservoir capacity: Approx. 8 litres
- External dimension should be 265 x 700 x 595 mm
- PID Temp. Controller with resolution of 0.1 °C
- Cooling capacity: 400 watts @ 20°C
- Pumping @ 15 litres/min at zero head.
- Operating range: -10 °C to ambient.
- Power supply: 230 V, 50 Hz, single phase.

c) Vacuum Pump-5 mbar:

- Diaphragm vacuum pump should reach ultimate vacuum of 5 mbar.
- Diaphragm should be of PTFE sandwiched to a strong non-wetted backing.
- Valves of vacuum pump should be made of chemically resistive materials like PEEK orother similar material.
- Should be a two-stage vacuum pump with noise level not more than 50 db.
- Vacuum pump should have free air displacement capacity of 35 litres/min
- It should be compact so that it occupies minimal desk space. External dimensions should notbe more than 28 x 28 x 20 cm.
- It should have In /Out serrated nozzles of ~ Ø 8 mm
- To avoid solvent entering into vacuum pump, it should be supplied with glass bottle solvent separator with two serrated nozzles and threaded caps - all fitted in a lockable stainless steel cage enabling easy removal & fitting for emptying.
- Vacuum Pump should have in-built over-temperature protection.
- Supply : 230V AC, Single Phase, 50Hz

3. Water Bath

- Construction : Double walled
- Temperature controller: digital
- Working temperature : +50 to +100 0 C
- Accuracy : +/-1
- Suitable for : 3 racks,
- Dimensions : 300 X 250 X 175 mm, 14L

Terms and Conditions

- The price quoted should be that applicable for the educational institutions (with 5% GST)
- **The items should have an onsite warranty for at least 2 years.**
- The firm should be capable to extend immediate service, which in no way should not exceed 24 hours**.**
- Prices are to be quoted FOR DESTINATION (*i*CEIB, University of Kerala, Kariavattom). The prices quoted should clearly indicate the 4 following charges: Price of the equipment including taxes; Price of optional accessories if any; Customs duty if any (after submission of custom and excise exemption certificate); Customs Clearance Charges, transportation charges and installation charges. If these details are not provided it will be considered that the price quoted is inclusive of all charges.
- Technical Bid and Financial Bid must be placed in individual sealed envelopes and these envelops must be placed inside a bigger envelope.
- **If the tenderer wants to quote for more than one model separate tenders should be submitted. If more than one model is quoted in single tender it will be summarily rejected.**
- Performance Certificate of the specified model should be attached along with the quotations.
- The undersigned reserves have the right to reject any or all of the tenders received without assigning any reason thereof.
- If any of the components is found to be defective during the warranty period, the vendor has to replace the defective item immediately at their own cost.

- **Supplier authorization letter and specification compliance sheet to be provided along with the quotation.**
- The interested bidders shall submit their best possible offer before last date to the undersigned.

The bid (Technical and Financial), complete in all respects may be submitted to **Hon. Director, *i*CEIB, University of Kerala, Kariavattom, Thiruvananthapuram 695581**.On or before **25.08.2022, 3.30 PM**.

Thanking you

Yours sincerely,

Sd/-

Hon. Director