

## (संसद के अधिनियम दवारा स्थापित केंद्रीय विश्वविदयालय)

(A Central University established by an Act of Parliament) कुल सचिव का कार्यालय/ OFFICE OF THE REGISTRAR

नपाम :: तेजपुर - 784028 :: असम

NAPAAM :: TEZPUR - 784028 :: ASSAM

#### **SHORT QUOTATION NOTICE**

TU/11-24/Pur/Qtn/2017-18/4381-A. Dated: 01.01.2018

Sealed quotations are invited from reputed manufacturers/authorized dealers/vendors for supply, installation & commissioning etc. of following items required for the DBT Twinning Project entitled "Biorefinery approach for generation of platform chemicals and bioethanol from indigenous lignocellulosic agrowaste and algal bioresources" of Dr. Eeshan Kalita, Department of Molecular Biology & Biotechnology, Tezpur University. Those who have participated in response to our Earlier Notice No. TU/11-24/Pur/Qtn/2017-18/3628-A dated 21.11.2017 may submit their revised offer/quotation in reference to their earlier offer/quotation, and in such cases no Tender Fee and EMD is to be paid again.

List of equipment and specifications:

SI No.	equipment and specifications  Item	Specification
	High Pressure Stirred Autoclave cum Induction Reactor with Catalyst/Gas charging facility	Size and construction: 250 ml capacity made from SS 316 solid bar stock (no welding) with SS-316 Fixed head design.  Maximum operating pressure: 100 bar (1450 psi).  Maximum operating temperature: 500 °C.  Nozzles and fittings:  • Should be equipped with Vacuum pump with suitable vacuum pressure gauge for Up to 0.01 mm Hg vacuum.  • Should have Back pressure regulator up to 100 bar pressure for gas charging facility.  • Should be equipped with two SS 316 gas collectors with two needle valves, one at each end; one standard pressure gauge up to 50 bar and a sample collection port with the capacity of 1000 and 2000 ml.  • All line connections should be ¼ inch SS pipe (designed for up to 100 bar operating pressure).  • Should be equipped with digital Pressure gauge, Vent valves, Safety rupture disc etc.  • Should have Internal cooling with temperature sensor and display.  • Should be equipped with External heating facility with temperature controller with control panel (including display) and temperature sensor.  • Should have Gas inlets and outlets combined with digital pressure gauge.  • Should have mass flow controller with display unit.  • Mounting facility on SS-trolley for easy portability and setup management is preferable.  Accessories:  • Various fittings such as needle valves, non-return valves etc. should be provided as required for the setup.  • One online filter should be provided at outlet of autoclave to prevent carryover of the solid material from autoclave.  • Catalyst basket of ~25 ml size should be provided for placing with in autoclave.
		• Two SS Pressure regulators for cylinders: (a) One for H2 cylinder (b)



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One for Argon cylinder equipped with pressure gauges and ¼ inch outlet fitting and designed for operation up to 100 bar.

#### Warranty:

Warranty on the components covering a minimum of two years from the date of installation should be included in the offer with a provision for extended warranty.

#### **Certifications:**

The equipment should conform to ASME/CE/International quality standards and related documents should be provided.

#### Compliance:

Vendor with required experience should take all necessary responsibility to quote for specified configurations supported with adequate literature. Vendor should submit documents supporting their expertise and supply list of Indian Customers (with detailed communication address and installation certificates) where such instruments have been supplied successfully.

#### Transportation, Insurance, Installation & commissioning:

The Quotation price should include delivery and free installation of the instrument at Tezpur University, Napaam, Assam-784028, India. The instrument should be transported to installation site and insurance should cover from the supplier warehouse to installation site. The instrument to be installed, tested and commissioned by representative of supplier at Tezpur University premises to the satisfaction of user. Full installation kit should be supplied along with the instruments. All necessary installation pre-requisites should be offered for satisfactory operation after installation at site like tubing, fittings, or any other relevant accessories to install & run the instrument smoothly. Operational manual for the relevant parts/components should be supplied.

# 2. Table-top Refrigerated Centrifuge including accessories

#### Size and construction:

- Should be within the following dimensions: (W x D x H): 40 x 65 x 30 cm
- Weight excluding accessories should be ~50 kg.
- Should have maintenance-free, brush-less motor.
- Rotor chamber should be made from stainless steel with PTFE coating.
- The system should be equipped with the following:
  - ightharpoonup (24 x 1.5/2.0 ml tubes) rotor with speed up to ~17,500 rpm/ 30,000 x g.
  - $\triangleright$  (6 x 15/50 ml tubes) rotor with carrier for 15/50 ml tubes and with speed up to  $\sim$ 7,800 rpm/ 7,000 x g.
  - ➤ (2 x plate) swing-bucket rotor for MTP/PCR/Deep well plates with speed up to ~4,500 rpm/ 2,000 x g.
- Should have a wide working temperature range from -10 °C to +40 °C, modifiable during run operation.
- The system should be equipped with effective ventilation system and should conform to the EN-61010-1 & EN-61010-2-020 international safety norms.

#### Working conditions:

Should have a maximum speed of ~18,000 rpm, RCF of ~30,000 x g,



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and a maximum capacity of ~500ml.

- Should have the facility of storing operating programs for easy operability and should be equipped with centrifuge run time of 30scontinuous.
- Should be equipped with protection systems to ensure that it is not possible to open the lid during spinning & not possible to start when the lid is open.
- Should have facility for automatic rotor identification, imbalance detection, automatic lid opening, lid locking during rotor running and emergency lid lock release.
- Should have facility for two modes of run-time calculation: from start key press or from reaching preselected speed.
- Should have facility for monitoring and saving of working parameters through computer or directly by thermal printer with serial port.
- Short spinning function should be provided.

#### Warranty:

Warranty on the components covering a minimum of two years from the date of installation should be included in the offer with a provision for extended warranty.

#### **Certifications:**

The equipment should conform to ASME/CE/International quality standards and related documents should be provided.

#### Compliance:

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#### **GENERAL TERMS & CONDITIONS:**

- 1. No separate tender paper will be issued from the office; one should only download the specifications/List from the website.
- 2. The rates should be preferably quoted in Indian Rupee and FOR Tezpur University, Napaam basis. Charges for clearing and transportation should be incurred by the supplier.
- 3. Quotations should be accompanied by i) An EMD (in the form of Demand Draft/Call Deposit/TDR) of ₹. 5000/- (Rupees Five Thousand) only drawn/pledged in favor of Registrar, Tezpur University, payable at



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Tezpur. **No request for consideration of earlier deposited EMD will be considered**. ii) A non-refundable application (quotation) fee of ₹.1000.00 (Rupees One Thousand) only must be paid only by Demand Draft drawn in favour of Registrar, Tezpur University payable at Tezpur.

- 4. The rates should be exclusive of GST and applicable GST in % should be clearly indicated
- 5. Applicable levies, surcharge and discounts should be clearly indicated itemwise.
- 6. Quoted rates should be valid at least for a period of 01 year.
- 7. The rates should be quoted along with supporting documents of specifications and technical features and list of users.
- 8. The system must be installed at the laboratory, and after installation a basic training must also be provided by the supplier or their Indian counterpart without any additional costs.
- 9. All the quotations must be accompanied with supporting documents and / or literature.
- 10. Demonstration may be sought from the vendors for authentication of quoted specification.
- 11. Details of availability of after sales support will have to be furnished. After sales support, directly from manufacturer and from Assam (Guwahati / Tezpur) will be preferred.
- 12. The University is exempted from paying Custom and Excise duty.
- 13. Proprietary items should be quoted with sole Manufacturer/Distributorship certificate.
- 14. Warranty/Gurantee period should be specifically mentioned in the quotation.
- 15. No Advance payment will be made. However, for foreign supplier, advance payment will be made either by FDD/Wire Transfer/LC. In such cases 10% Performance Bank Guarantee should be submitted before issuing FDD/Wire Transfer/LC, covering the warranty period.
- 16. Performance Bank Guarantee also must be submitted for Major equipments of Indian origin, covering the warranty period.
- 17. Items of Foreign origin should have Insurance up to installation on site.
- 18. The University reserves the right to accept or reject any or all the quotations without assigning any reason.
- 19. Quoted price should be inclusive of essential accessories and should be CIF Tezpur University, Tezpur
- 20. Applications for release of EMD should be submitted to the Registrar/ Joint Registrar.
- 21. Apart from the above terms and conditions the University has the right to include any other terms and conditions as and when felt necessary.
- 22. Quotation should be submitted in the DROP BOX placed in the reception of the Administrative Building of the University on or before 5.00 Pm of 22.01.2018. If posted/courierred, should reach on or before the last date addressed to "The Joint Registrar, Tezpur University". The Quotation Notice No. and date should be clearly superscribed in the envelope/packet containing the quotation. Technical and Financial Bid in separate envelopes are to be put in the main envelope alongwith the Tender Fee and EMD.

Sd/- Joint Registrar Tezpur University