



# झारखण्ड केन्द्रीय विश्वविद्यालय Central University of Jharkhand

Brambe, Ranchi, Jharkhand, 835205

CUJ/CEE/ BP/SYS/2015/02

Dated: 10-02-2015

Sealed quotations are invited for the article enclosed in the separate sheet subject to the terms and conditions given below:

The quotation should be addressed to Dr. Basudev Pradhan, (P.I. of the Project), Centre for Energy Engineering, Central University of Jharkhand, Ratu- Lohardaga Road, Brambe, Ranchi, 835205 and should reach on or before **04/03/2015**.

Quotations will be opened on the next working day.

## TERMS AND CONDITIONS

1. Quotations without any erasures and overwriting must be submitted in sealed cover addressed to the, Dr. Basudev Pradhan, Centre for Energy Engineering, Central University of Jharkhand, Ratu- Lohardaga road, Brambe, Ranchi- 835 205 super- scribed Tender/ Enquiry No. and the due date failing which, quotation may be ignored. Tender/ quotation should be sent through Post/ Courier/ By Hand.
2. The rate quoted should be inclusive of all packing, forwarding, commissioning & installation, sales tax, freight and insurance charges and should remain valid for our acceptance for minimum period of six (6) months from the due date of opening of the quotations. The quotation should be CUJ consignee's site basis i.e. Central University of Jharkhand, Ratu- Lohardaga Road, Brambe, Ranchi.
3. Manufacturer's name of company of origin of materials offered must be clearly specified. Complete details of illustrated literatures/ or drawings, in original (not photocopies), if any must accompany all quotations.
4. The University will not entertain requests for revision in prices once quoted for whatever reason after the tenders are opened during the period of contract.
5. All goods must be delivered at our University at Ratu- Lohardaga Road, Brambe, Ranchi for inspection by our inspecting authority.
6. Full payment will be made within 30 days of the receipt and acceptance after inspection of supplies at destination, quotations containing different payment terms are liable to be ignored.
7. All goods must be delivered at our university at Ratu- Lohardaga road, Brambe, Ranchi (Stores & Purchase Section) after confirmed order. The University will provide DSIR certificate, Educational certificate if necessary. The University will not be responsible for issuing any Road Permit.
8. Only Manufacturer/ Authorized dealer/ firms of repute dealing in the items listed in the quotation having experience in sale and repair/ maintenance, need apply.
9. Only latest models/ mentioned models of items need to be quoted.
10. It should be mentioned specifically whether price quoted includes all taxes and duties. Sales tax and/ or other duties legally liable and intended to be claimed should be distinctly shown in the tender.

11. VAT/CST Registration Number and its validity should be indicated. Documentary evidences be supplied/ attached to the tender documents.
12. All rates shall be indicated both in words and figures. Where there is difference between the rates quoted in words and figures, rate quoted in words will prevail.
13. The supplier shall make delivery of the items within the stipulated period from the placement of the purchase order. The purchase order would be placed after assessing the requirement and hence, actual quantity may increase/ decrease
14. The Tender Document for items will be Two- Bid system consisting of Technical Bid and Price Bid. The Tender Document will be submitted item-wise in two separate sealed covers clearly mentioning on the envelope the details of items for which Bid is submitted.
15. The Bidder must enclose point wise compliance of the technical specifications of each item.
16. The price of Tender Document is **Rs. 1000/- only** (One Thousand rupees only) (non-refundable). The Tender Document price may be attached to the Technical Bid in the form of Bank Draft in favour of “Central University of Jharkhand” payable at Ranchi.
17. The Tender Documents comprising of **Price- Bid, Technical Bid and Earnest Money Deposit of Rs. 15,500.00 only (Rupees Fifteen Thousand Five Hundred only) (refundable)** in the form of Bank Draft in favour of “Central University of Jharkhand” payable at Ranchi kept in the separate envelope super- scribed with the name of the same. The Tender Document must be enclosed with Earnest Money Deposit otherwise the tender document will be rejected. All the documents must be enclosed in a bigger size envelope super- scribed with the tender number and item name.
18. Only those Manufacturers liable to participate having ISO 9001 and ISO 14001 certification.
19. All legal disputes shall be under the jurisdiction of Jharkhand High court, Ranchi.
20. The University reserves the right to accept or reject any Bid, without assigning any reason thereof. No correspondence in this regard will be entertained.
21. All the participating firms should attach supporting documents in favour of:
  - a) Have at least 5 years of experience in the field.
  - b) Have an annual turnover of at least Rs. 50 Lakh per annum for each of the last 3 years (i.e 2010-11, 2011-12 & 2012-13) (Agency should produce a certificate from their Audit Firm in respect of turnover for the mentioned period)
  - c) Be registered with Directorate of Industries or Small Scale Industries or any other appropriate authorities.
  - d) Have valid TIN Number for registration under VAT/CST
  - e) Have PAN for Income Tax. Supporting documents for Income Tax return for the last Two years (i.e 2011-12, 2012-13).
  - f) Documents as proof in respect of Technical bid along with supporting documents.
  - g) Profile and Track Record of the agency. (3 years)
  - h) Copy of signed Balance Sheets of last three years.
  - i) Detailed terms & conditions regarding performance/ warranty/ bank guarantee/ Inspection/ LD/ penalty for delayed supplied will be elaborated in purchase order.
  - j) For proprietary items/ single manufacturers or Government manufacturers, proper certification in original is to be attached along with the Technical Bid.

**Dr. Basudev Pradhan**  
(P.I.)

**List of Instrument**

Item name	Description of items		Quantity
	Feature	Specification	
<b>Thermal Coating Unit</b>	<b>Vacuum chamber</b>	Vacuum chamber is a box type with front opening door made out of non-magnetic quality AISI-304 stainless steel processed for very high vacuum.	1
	<b>L.T. Evaporation and Source</b>	1 No. of LT electrical feed through for evaporation made of electrolytic pure copper, with 200 amps current carrying capacity is provided.	
	<b>H.T. ion cleaning feedthrough and gadgetary</b>	One HT electrical feed through to carry power for Ion cleaning is provided. A bar type ion bombardment gadget is fixed on the feedthrough to provide a uniform glow discharge.	
	<b>Source Shutter</b>	A manually operated source shutter with rotary shaft seal, to cover the evaporation source depending on requirement is incorporated in the chamber.	
	<b>Evaporation source holder</b>	1 Sets of Central evaporation source holder is provided as a standard. The holder can accept Filaments / Baskets / Boats as evaporation sources.	
	<b>Work holder</b>	A circular Flat work holder made of aluminium is supported from top plate of the box chamber. The work holder will have 320 mm diameter or higher.	
	<b>Electrical controls :</b>	Unit operates on 220V A.C 50 Hz Single phase power supply.	
	<b>L.T Power Supply</b>	A 200 amps power supply capable of delivering 200 amps at 10 volts, 100 amps at 20 volts intermittent is provided or better.	
	<b>H.T power supply</b>	A 5000 volts DC Open circuit, 3500 volts at 50 mA high reactance type transformer and solid state bridge rectifier are provided or better.	
	<b>L.T/H.T Control</b>	Thyristor power controller is provided in the input circuit of LT/HT selector provides the output power variation.	
	<b>Meters</b>	Separate Digital panel meters provided for LT/HT primary current and LT secondary current through current transformers.	
	<b>Rotary Vacuum Pump</b>	Direct Drive Rotary Vacuum Pump having a displacement capacity of 20 m <sup>3</sup> /hr giving an ultimate vacuum of 1 x 10 <sup>-3</sup> m.bar under no load condition or better.	
	<b>Diffstack oil diffusion pump</b>	Diffstack Oil Diffusion pump having 150 mm nominal dia with an effective pumping speed of 750 lit/sec or higher.	
	<b>Cryo trap:</b>	Liquid nitrogen cryo cooled trap is provided in the system	
	<b>High vacuum valve</b>	A 6" size High Vacuum Valve of Butterfly Valve is provided above the diffusion pump or better.	
	<b>Plumbing lines and valves</b>	Plumbing lines are made of stainless steel which will incorporate a 3 way combination valve	
<b>Vacuum measuring gauges</b>	Digital High Pressure Pirani gauge with two pirani gauge heads to independently monitor the roughing (chamber) & backing pressure.		
<b>Digital thickness monitor</b>	Digital Thickness monitor with water cooled Crystal holder, Rate display: 3 digits LED Auto-ranging from 00.00 to 999 Ang/sec.		
<b>Safety devices</b>	Water flow switch in the water circulation line of the unit protects the diffusion pump in case of water supply failure		

		by switching off the diffusion pump heater	
	<b>Ultimate vacuum</b>	High vacuum in the order of $5 \times 10^{-6}$ m.bar	
	<b>Accessories</b>	The following materials are supplied with the unit: Tungsten Helicals (1Pkt. ),Tungsten Baskets (1 Pkt.) Molybdenum Boats 200 amps (1pkt. ) Quartz 6 MHz Crystal for Film Thickness Monitor First charge of oil for Diffusion pump. First charge of oil for Rotary pump	