

PONDICHERRY UNIVERSITY, PUDUCHERRY – 605 014

(a central University)

DEPARTMENT OF PHYSICS

Sealed quotations are invited in **two bid systems i.e. both “techno-commercial offer” and “price offer”** for purchase of *Vacuum Thermal Co-Evaporation Unit*. The quotations duly signed and sealed should be submitted to the address below. The quotation should be sent by Post (Normal / Speed / Registered / Courier) only. The price quoted should include all the costs such as delivery, installation, testing etc., and also inclusive of all taxes. Warranty terms should be explicitly specified in your quotation. The technical specifications are given below. **Last date for receiving quotations is September 19, 2012.**

Name of the Equipment: *Vacuum Thermal Co-Evaporation Unit*

Description: A complete system with co-evaporation facility and thickness monitor is compulsory.

Important Note: only ISO certified companies are eligible to send their quotes.

Detailed Technical Specifications:

1. Vacuum Pumping system:
 - (a) Rotary Pump with the capacity of capacity of 250 lit/min (15 m³/hr)
 - (b) Diffstack type Oil Diffusion Pump having 114 mm nominal dia with an effective pumping speed of 280 Lit/Sec
2. High Vacuum Valve:
4.5" size with maximum pumping capacity
3. Liquid N₂ trap in diffusion pump
4. Pumping lines and valves
5. vacuum measuring gauges:
 - (a) pirani gauge
Two pirani gauge heads to independently monitor the roughing and backing pressure in the range of 0.5 to 0.001 mbar through a selector switch.
 - (b) penning gauge
A penning gauge with 1 no. metal gauge head to monitor high vacuum in two ranges. First range is 1 x 10⁻³ to 1 x 10⁻⁵ m.bar and second range is 2 x 10⁻⁵ to 1 x 10⁻⁶ m.bar.
6. Belljar with lifting mechanism
290 mm inner diameter and 450 mm height
7. L.T evaporation feedthroughs: 3 No. of LT electrical feedthroughs made of electrolytic pure copper, with 200 amps current carrying capacity with selector switch.
8. H.T ion cleaning feedthrough: One HT electrical feed through to carry power for Ion cleaning along with a bar type ion bombardment gadget to provide a uniform glow discharge.
9. source shutter: A manually operated source shutter with rotary shaft seal, to cover the evaporation source depending on requirement in the chamber.
10. evaporation source holder: 3 set of evaporation source (one central and two sectors) holders should be provided as a standard. This holder should accept Filaments / Baskets / Boats as evaporation sources.
11. electrical controls : 220V A.C 50 Hz Single phase power supply
12. L.T power supply: Two numbers of power supplies with co-evaporation set up should be

supplied. A 200 amps power supply capable of delivering 200 amps at 10 volts, 100 amps at 20 volts intermittent and 160 amps at 10 volts, 80 amps at 20 volts continuous should be provided.

13. H.T power supply: A 5000 volts DC Open circuit, 3500 volts at 50 mA high reactance type transformer and solid state bridge rectifier.

14. Quartz crystal thickness monitor

15. Safety devices: A water flow switch, thermostat switch, cabinet doors for power supplies, vacuum switch, electrical circuit breaker, over load protection device etc.,

16. Housing cabinet for all the components

17. The unit should achieve $1\text{E-}6$ mbar ultimate vacuum with LN2 trap

18. Free supply of the following materials along with the unit.

(a) First charge of molecular distilled oil for vacuum pump.

(b) First charge of silicone oil DC-704 for diffusion pump.

(c) one set of Neoprene O-rings and gaskets

(d) one set of Instruction Manual.

(e) one set of tungsten helicals and Molybdenum boats

Optional

1. Substrate heater with temperature sensor up to 500°C

2. E-Beam Gun: Single Source 3KW 270 Deg. Bent beam type Electron Beam Gun with Power Supply.

Dr. D. Bharathi Mohan
Assistant Professor
Department of Physics
Pondicherry University
PUDUCHERRY – 605 014

TERMS AND CONDITIONS

I. General Information:

- a) **Last date and time of receipt of the Quotations: September 19, 2012 5.30 PM**
- b) **Quotation / Tender Document fee Rs. 500/-**
- c) **EMD rates: 2.5% of the quoted price.**
- d) Quoting merely the lowest price does not confer any right to any bidder for award of supply order. The University's Purchase Committee, reserves the right to select the equipment any bid under the grounds of specification compliance, technologically advanced quality, proven performance track record, brand reputation, service backup support & training, offer of additional / special features, Compatibility with the existing System, etc.
- e) The Quotation / Tender Document Fee and EMD should be submitted along with your quotations.
- f) The quotation must be submitted along with the stipulated quotation document fee and EMD in the sealed cover, super-scribing "**Quotation for Vacuum Thermal Co-Evaporation Unit – Department of Physics**", The name and address of the bidder should also be mentioned at the "From address" space.
- g) The quotations should be addressed and posted to the following address by speed, registered post or by courier.

Dr. D. Bharathi Mohan
Assistant Professor
Department of Physics
Pondicherry University
PUDUCHERRY – 605 014

- h) **Quotations will not be accepted through fax / e-mail.**

II. Common Conditions (Import or Indigenous)

1. *Purchase of Quotation Document:*

The Quotation / Tender document can be downloaded from the University website www.pondiuni.edu.in or procured from the Pondicherry University on payment of fee as specified above, by means of a D.D, drawn in favor of **the Finance Officer, Pondicherry University, payable at Puducherry**. The downloaded application should be accompanied with the quotation document fee, in the form of a Demand Draft.

2. *Price Schedule*

The rates should be quoted for a single unit and also for the total quantity required by the University. The price should include the Delivery, installation, training charges, etc. at the respective Department, Pondicherry University. The prices quoted shall remain firm until the above mentioned equipments are supplied to the physics Department, Pondicherry University.

3. *Quoting the Core price & Tax, Duties, Discount etc.*

The taxes / duties / discounts, if applicable, are to be explicitly and separately shown in the bid.

4. *Eligibility:*

The firm must have the requisite domain expertise with regard to supply, installation and post-sale service of the items they are quoting. The firm should have been in existence for at least six years as on the date of this quotation and must have executed at least three orders for this kind of hardware during the last three years.

5. *Duty Exemption*

The University has been granted the benefit of exemption from the payment of the Central Excise Duty and Customs Duty by the Department of Scientific and Industrial Research (DSIR), India, vide their Notification No.10/97 dt. 01-03-1997 and 51/96 dated 23.07.96 respectively, in respect of

- a) Scientific and technical instruments, apparatus, equipment, Software including computers.
- b) Accessories and spare parts of goods specified in (a) above and consumables.
- c) Computer software, compact disks, CD ROM, Recording magnetic tapes, microfilms, micro-chips etc.

d) Prototypes.

Customs duties at Indian port, if any, will be to the account of the University.

6. Technical Specifications

- i. **WARRANTY:**

The equipments covered under the purchase order, when installed, shall be warranted for the quality, workmanship, trouble free operation and performance for a period of at least 36 months (**preferably 5 years**) from the date of putting the system into operation at the Department of Physics, Pondicherry University, or at least 42 months from the date of receipt of the last lot of the consignment in India.
- ii. If any item covered under warranty fails, the same shall be replaced free of cost including all the applicable charges including shipping cost both ways.
- iii. Complete technical specifications of the equipment including the Operating system to be included in the Technical bid.
- iv. The necessary service support should be provided by Bidder during the agreement period.
- v. The training should be provided by the supplying companies for a minimum period of four days from the date of installation with an expert team. Alternate years training should be provided during the license period.
- vi. Technical post sale support by email and telephone will be provided during the period.
- vii. Operating Manual should be provided in English.
- viii. A clear statement regarding availability of after-sales service and availability of spare-parts for next 3 to 6 years should be included.
- ix. A recent customer list (within last five years) with contact details including email address is to be submitted with technical bids / bids as the case may be.
- x. If the equipment is proprietary a product, a proprietary product certificate should be enclosed.
- xi. The information pertaining to infrastructural, power and any other requirement for satisfactory installation and commissioning of the whole system must be provided by the bidder, at least 120 days in advance of the installation to be commenced if purchase order is issued.
- xii. The equipment must operate at 230V / 50 Hz single phase and / or equivalent three phase electrical power.
- xiii. If the bidder is an authorized representative in India, they are requested to inform their technical ability to take care of the problems in the system, if developed later within the warranty and outside the warranty period. The responsibility of the Indian agent must be clearly specified.
- xiv. The bidder from abroad shall obtain, if required, export permission from the appropriate authorities in his country or the country of origin for items to be shipped to India in case of items to be imported. The University shall provide necessary information if required for this purpose.
- xv. **The validity of the each quotation should be at least for THREE MONTHS from closing date.**
- xvi. The offers will not be considered if received after the bid closing date and time.
- xvii. The offers received through telex / tele-fax / e-mail will not be accepted by the University under any circumstances.
- xviii. The University shall not be responsible for any delay / loss or non-receipt of quotations by post / courier service.
- xix. No unsolicited correspondence shall be entertained after the submission of the offer.
- xx. If an order is placed with the firm, the purchase shall be governed by an agreement as per the University rules in force at the time.
- xxi. Additional terms and conditions will be incorporated in the purchase order, if needed, to safe guard the interests of the University.
- xxii. Quotation is not transferable.

xxiii. In case of any dispute in respect of the quotation, all legal matters shall be instituted with-
in the jurisdiction of the place where the purchaser ordinarily resides.

7. Power to reject the offer:

- i. Pondicherry University reserves the right to accept / reject any offer in full or in part or accept any offer other than the lowest offer without assigning any reason thereof. Any offer containing incorrect and incomplete information shall be liable for rejection.
- ii. No Agency commission will be paid to any authorized agent in India.
- iii. Liquidated damages: Timely supply of the ordered items, installation, commissioning (wherever is applicable) and training etc. is the essence of the contract. In case of failure to supply within the time specified in the Purchase order, a penalty / LD of 0.5% of the total value per week or a part thereof shall be levied subject to a maximum of 7.5% in respect of items which are not supplied. The decision of Pondicherry University shall be final in this regard.
- iv. Bidder(s) must be authorized business partners of Global / National service providers of the respective furnace.
- v. The Bidders must enclose authorization letter from the respective global / national service providers of the above said furnace particularly mentioning an undertaking that in case of default by the Bidder, they (Global Service Provider) shall take over all the responsibilities of the Bidder.
- vi. The Bidder should not be involved in any Bankruptcy filing for protection from it.

III. Specific Conditions for Imported Equipments

1. Payment of EMD:

The Quotation must be accompanied by EMD as stated above, by means of a Demand Draft, drawn in favor of **The Finance Officer, Pondicherry University, payable at Puducherry**. *The Small Scale units are exempted from payment of EMD provided they enclose the proof of their exemption Certificate issued by the competent authority.*

2. Payments terms:

Normally a payment 90% will be released after the installation & training. However, 100% payment will be released **if the supplier provides Bank Guarantee** towards performance Security for the 10 % of the total cost of the furnace to cover the warranty period. Bank charges in India shall be borne by the purchaser and outside India shall be borne by the contractor / supplier. The offer must be in English. The rates should be indicated both in figures and words against item specified in the given table. It is preferable that the price be quoted in US Dollars or in major foreign currencies.
