

# Centre for Applied Research in Electronics Indian Institute of Technology Delhi

28<sup>th</sup> January 2013

The Centre for Applied Research in Electronics is planning to purchase a Spin Coater System. Quotations for suitable systems matching the desired specifications and following IIT Delhi norms are hereby invited for the purchase.

Complete requirements of **Spin Coater** are listed below:

The system should be in table top configuration, stable at its highest speed and acceleration with no vibration. System must be compatible with clean room of class 100.

Coating should be very uniform on all sizes of wafer.

1. **Substrate size:** 2", 3" and 4" diameter wafer or glass plate; Thickness  $\geq 250$   $\mu\text{m}$  up to 2 mm.
2. **Speed:** upto 6000 rpm +/- 1rpm (programmable) or better with controlled acceleration in discrete steps upto 3000 rpm/s.
3. **Uniformity of coated PR:**  $\pm 5\%$  of thickness.
4. **Bowl:**
  - 4a. PTFE coated.
  - 4b. Diameter: Min. 8"
  - 4c. Height: At least 1" above wafer level.
5. **Spin process time:**
  - Minimum: 1 second
  - Maximum: 999 seconds
  - Step size: 1 second or better
6. **Vacuum pump:** oil free to hold wafers at all desired speeds and with vacuum gauge or system with alternate mechanism (avoiding the use of vacuum pump) using dry compressed air for holding the wafer and interlocking mechanism for the safety of wafer
7. **Chucks:** for wafers of sizes: 2", 3" and 4" with provision of centring the wafers.
8. Programmable through GUI touch screen and provision of storage of at least 20 recipes.
9. **Power requirement:** 230V single phase 50Hz with voltage variation of  $\pm 10\%$ .
10. System should be CE certified and should be clean room of class 100 compatible.
11. Touch panel screen for programming the recipe for photoresist coating
11. Additional functionality / attachment/cover to plug in the edge bead remover, automatic dispensing system etc.
12. **Warranty: Minimum 1 year.** (For next 2 years should be quoted as option)

**NOTE:** Spinning bowl should be covered with a safety lid of suitable safety material and adjustable openings for dispensing or EBR.

## **ADDITIONAL OPTIONS:**

These may be quoted separately as optional capabilities of the equipment. All options must be fully compatible with the above specified configuration.

1. **Spares** not included in the above system and needed for normal or additional operation for one year should be mentioned separately.
2. **AMC:** For additional three years without spares.
3. Automatic Dispensing system.
4. Edge Bead Remover

The suppliers/manufacturers are requested to submit/send technical and financial bids (*financial and technical bids in separate sealed covers and again sealed in one envelope*) for the above mentioned equipment by **18<sup>th</sup> February 2013**.

***I. ALL BIDS MUST HAVE THE FOLLOWING INFORMATION.***

1. *Supplier must mention the following details about the warranty:* Number of years, starting date (from the date of installation). Additional charges in case extended warranty is required. Also mention if different components have different periods of warranty.
2. Warranty at customer site.
3. Please indicate the critical spares and their expected life time.
4. Quote the prices of listed accessories separately.
5. Delivery period must be clearly mentioned.
6. Validity of the quotations should be at least for 90 days.
7. All quotations must be FCA or Freight on Receipt
8. Please provide user list of similar systems installed within India and abroad.
9. Specification compliance certificate
10. Bank details on which the letter of credit is to be issued
11. The letter of credit will be opened for 100% of the cost of the system. 90% of the amount will be released after the receipt of shipping documents. The balance 10% will be released within one month of successful demonstration at the site of installation.
12. Information for the wire transfer details should also be provided.
13. The information on utility facilities, foot print of the machine and the weight of the system must be provided in the technical bid.

***II. PLEASE NOTE THE FOLLOWING POINTS.***

1. Mode of payment will be through letter of credit in case of imported items.
2. The Institute has the right to accept or reject any or all quotations without assigning any reasons.
3. The bidder must submit quotation for at least one full equipment excluding optional. Quotations for individual parts will be rejected.
4. Since, the equipment is meant for teaching purpose in a reputed educational institute in India, a special price discount may be offered.

**The sealed quotations must be submitted to:**

Prof. B. S. Panwar  
Block III, Room 213  
Centre for Applied Research in Electronics  
Indian Institute of Technology Delhi  
Hauz Khas, New Delhi – 110016 (India)

For any clarification please send E-mail to: ***bspanwar@care.iitd.ernet.in***

**DEADLINE** for submitting the quotations: **10:00 AM, 18<sup>th</sup> February 2013**

**Prof. Basabi Bhaumik**  
**Prof. & Head, Dept. Of Elect. Engg.**  
**(Chairman Purchase Finalization Committee)**