



IISER Mohali

# भारतीय विज्ञान शिक्षा एवं अनुसंधान संस्थान मोहाली

मानव संसाधन एवं विकास मंत्रालय, भारत सरकार द्वारा स्थापित  
सैक्टर 81, नॉलेज सिटी, प०ओ० मनोली, ए० ए० ए० नगर, मोहाली] पंजाब 140306

## INDIAN INSTITUTE OF SCIENCE EDUCATION AND RESEARCH MOHALI

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E-mail/CPMP/Website

IISERM (597) 15/16 Pur.

Date: 05<sup>th</sup> October 2015

### **NOTICE INVITING QUOTATIONS**

On behalf of The Director, IISER Mohali, sealed Quotations in **Two Bid System** (Technical & Financial) are invited for purchase of following item(s) along with EMD of Rs.26000/- in the form of DD/Bank Guarantee/Banker Cheque/FDR & Tender Fee of Rs.500/- (non-refundable) through Demand Draft/Banker's Cheque in favour of The Registrar, IISER Mohali payable at Chandigarh/Mohali, so as to reach us latest by 20<sup>th</sup> October 2015 before 1:00 p.m. The quotations will be opened on the same day at 4:00 p.m. in the presence of tenderers, if any.

Descriptions	Quantity
<b>Vacuum Components:-</b>	-
1. ONE Maglev TURBOMOLECULAR PUMP	01
2. Oil-Free Backing Scroll Pump	01
3. Vacuum Gauges with Controllers	-
a) All pressure Range Gauge (Atm to 10-8 Torr) with appropriate Controllers.	06
b) Ion Gauge controller with appropriate Controllers.	04
4. Gauge Controller	-
(as per specifications attached)	

Sd/-  
(Mukesh Kumar)  
Assistant Registrar (S&P)

## **INSTRUCTIONS**

1. Inquiry will be sent by UPC/Courier/Speed Post and IISER Mohali will not be liable for any kind of postal delay.
2. The Quotation should be addressed to the Director IISER Mohali invariably giving on the envelop reference number, last date & time of receipt of tender and date & time of opening of the tender.
3. One time importers from China with custom made specifications are highly discouraged.
4. The quantity mentioned in this inquiry is and shall be deemed to be only approximate and will not in any manner be binding on the Institute.
5. Firms will quote separately for each article.
6. The rates offered should be FOR Chandigarh/Mohali, in case of firms situated outside Chandigarh/Mohali, and free delivery at the Institute premises in case of local firms. Suppliers outside India may please mention the FOB/FCA price clearly.
7. In case of Ex-godown terms the amount of packaging forwarding freight etc. should clearly be indicated by percentage or lump sum amount. Institute has policy not to make any advance payment towards any purchase, Letter of credit can be opened if required.
8. In case of foreign consignment CIF/FOB should be mentioned clearly. THE INSTITUTE IS EXEMPTED FROM EXCISE AND CUSTOM DUTY.
9. SALES TAX: - This Institute is not exempted from the payment of Sales Tax/Service Tax/VAT. The current rate (i.e. percentage of Sales Tax should be clearly indicated included or excluded) wherever chargeable.
10. The delivery period should be strictly adhered, the firm have to execute the supply according to purchase order.
11. The firms are requested to give detailed description and specifications together with the detailed drawings, printed leaflets and literature of the Article quoted. The name of the manufactures and country of manufacture should also invariably be stated. In the absence of these particulars, the quotation is liable for rejection.
12. Validity of offer: 90 days.
13. Late or delayed quotation will not be accepted.
14. Service Facility: Please mention the nearest service center to IISER Mohali and the time required to attend the call.
15. The right to reject all or any of the quotation and to split up the requirements or relax any or all the above conditions without assigning any reason is reserved.
16. For any query, tenderers may contact via email : [stores@iisermohali.ac.in](mailto:stores@iisermohali.ac.in)

## Specifications for Vacuum Parts:

Quotation is invited in two bid system for the following items. Technical and Financial bids must be submitted in separate envelop within the stipulated period.

One low-maintenance magnetically levitated turbomolecular pump (TMP) and an oil-free backing pump for the same TMP along with all the accessories (including pressure gauges) are required. List of requirements are below.

### I. ONE Maglev TURBOMOLECULAR PUMP: One unit

- 1. Pumping speeds:**
  - (i) 1600 liter/sec or more. Must be fully magnetically levitated bearings.
- 2. Flanges:** DN 200CF for connection to the existing chamber.
- 3. Driving electronics:** Should be integrated with the entire system. Appropriate ports and automatic venting valves should be provided.
- 4. Splinter shield:** The TMP should be equipped with a splinter shield with the DN 200 CF.
- 5. Seals:** Minimum 4 copper gaskets (DN 200 CF) should be provided for each TMB.
- 6. Cooling:** The TMP should be cooled by air/liquid. Appropriate cooling mechanism (Fan etc.) should be provided. If water cooled, chiller unit must be included.
- 7. Protection:** Standard protection mechanism for protecting the turbo against any adverse conditions (for example, over-pressure, over-heating etc.) should be integrated.
- 8. Mounting option: Any mounting** (0 to 360 degree) should be possible. Must be oil free.
- 9. Vibration:** The pump should be lowest possible noise and minimum possible vibration for sensitive optical applications.

### II. OIL-FREE BACKING SCROLL PUMP: One unit

The pump should be based on scroll pump technology and should be compatible with TMP mentioned above with appropriate flanges and stainless steel hoses. The oil-free pump has to be either a two-stage roots pump or a scroll pump with three years lifetime for the tips or seal changing.

- 1. Pumping speed:** 43 m<sup>3</sup>/hour or Higher.
- 2. Flanges:** Should be appropriate for and compatible with the supplied TMP.
- 3. Filters:** The pump should be integrated with activated carbon filter and a provision for using a cold trap in the future should be kept. The additional price for the cold trap may be mentioned separately.
- 4.** No lubricated parts in the vacuum.
- 5.** Bearings completely isolated from the vacuum envelope
- 6.** The pump should be integrated with HV safety valve.
- 7.** Noise level (dbA) 57 @ 50 Hz
- 8.** Vibration: 4.5 mm/s (rms).

### III. VACUUM GAUGES WITH CONTROLLERS:

Vacuum gauges with controller and complete electronic accessories should be quoted. The details are described below.

- 1. All pressure range gauge (Atm to 10<sup>-8</sup> Torr) with appropriate controllers:**  
**Quantity: Six**
- 2. Ion gauge controller with appropriate controllers: (up to 10<sup>-9</sup> Torr)**  
**Quantity: Four**

#### **IV. Gauge controller:**

1. The controller must have Six inputs for reading the six gauges or more of the gauge type mentioned above.
2. The controller should be properly integrated with the vacuum gauges and the TMP driving electronics.
3. The controller should be able to displays reading from six different gauges at all times and should also have a fast refresh rate.
4. The controller should be interfaced using USB.
5. All the accessories for integrating the controller with the pumping system should be provided.

The input power requirement of the system should be 230 V<sub>ac</sub> at 50 Hz and single phase.