



**DEPARTMENT OF BIOTECHNOLOGY**  
**Indian Institute of Technology, Madras, Chennai, 600 036.**  
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**Professor RAYALA SURESH  
KUMAR**

**Ref: BT/RAYA/2018/023/SPL**

**Dt. 31.08.18**

**Date: 31.08.2018**

**Due Dt. 20.09.18**

1. Quotations are invited in duplicate for the various items shown below/overleaf/ enclosed list.
2. The quotations duly sealed and super scribed on the envelope with the reference No. and due date, should be addressed to the undersigned so as to reach him on or before the due date stipulated above.
3. The quotations should be valid for sixty days from the due date and the period of delivery required should also be clearly indicated.
4. If the item is under DGS & D Rate Contract, Rate Contract Number and the price must be mentioned. It may also please be indicated whether the supply can be made direct to us at the rate contract price. If so, please send copy of the R.C. (Please note that we are not Direct Demanding Officers).
5. Relevant literature pertaining to the items quoted with full specifications (and drawing, if any) should be sent along with the Quotations, wherever applicable. Samples if called for should be submitted free of charges and collected back at the supplier's expenses.
6. **Local Firms:** Quotations should be for free delivery to this Institute. If quotations are for Ex-Godown, delivery charges should be indicated separately.
7. **Firms outside Chennai:** Quotations should be for F.O.R Chennai. If F.O.R. Consigner stationer freight charges by passenger train/lorry transport must be indicated. If Ex-Godown, Packing, forwarding and freight charges must be indicated.
8. The rates of Sales/General Taxes and the percentage of such other taxes legally leviable and intended to be claimed should be distinctly shown along with the price quoted. Where this is not done, no claim for Sales/General Taxes will be admitted at any stage and on any ground whatsoever. **The taxes leviable should take into consideration that we are entitled to have concessional sales tax applicable to non-government educational institutions run with no profit motive for which a Concession. Sales tax certificates will be issued at the time of final settlement of the bill.**
9. Goods should be supplied carriage paid and insured.
10. Goods shall not be supplied without an official supply order.
11. **Payment:** Every attempt will be made to make payment within 30 days from the date of receipt of bill/acceptance of goods, whichever is later.

**SPECIFICATIONS OF CLEAN ROOM:** TWO PART TENDER – Technical & Price Bids shall be submitted separately.

**Name of work:** **Construction and Validation of Class 10000 Clean Room on third floor of Biotech Block 1 at IIT Madras**

**Clean Room Area:** 240SqFt, False Ceiling Height: 8ft (Clean Room & Ante Room Design)

**No. of persons:** 3 **Temperature:** 23 - 25°C **RH:** 60% - 65% **Cleanliness:** Class 10000 (ISO-7)

**Warranty Required:** 2 years from the date of commissioning, Validation & Handover.

**SCOPE OF WORK:**

**A HVAC WORK & FILTRATION:**

Design, supply, installation, commissioning & Validation of Class 10000 Clean Room with DX type Condensing Units (Refrigerant: R407C), Air Handling Unit (AHU), Air distribution System (Duct, Insulation, Volume Control Dampers, Fire Dampers, Grilles, Risers, Fresh Air Arrangement etc), Terminal HEPA filters installed in specially designed Plenum with provision for capacity enhancement, 2 stage Prefilters installed in AHU, Electrical Control Panel with earthing for all HVAC related equipments, Electrical Strip Heaters, Humidistat, Thermostat, Magnehelic Gauges, Temperature & RH display shall also be included. 2 sets of air conditionings are required. This would enable the alternate functioning of each of the unit. As part of Validation, HEPA filter Integrity test, Particle Count Test, Air Velocity measurement, Temperature & RH, AHU capacity, Air Changes checking, Light Intensity, Room Pressure Balancing etc. have to be done 4 times, once after Commissioning, again after 6months, 12months & 18months after commissioning. All Consumable items for Validation shall be arranged by the Contractor.

**B CLEAN ROOM INTERIOR WORK**

Modular Wall (100mm) & Ceiling Panels (50mm) with PUF insulation sandwich between PCGI sheets of 0.55mm thickness with concealed Return Air Risers & conduits and cutouts as required. Extruded aluminium Coving, 3D corner covings, Clean Room Doors with interlocking, Double glazed View Panels, Epoxy flooring, Non-VOC based PU wall coating, Light fittings with CFL lamps with switches, Modular Plug Sockets in the Wall panels, wiring with DB inside the Clean Room. Minor civil work such as making holes & plastering for pipes, ducts etc. to be done by Contractor.

**C CLEAN ROOM EQUIPMENT:**

**Horizontal Laminar Flow Unit:** Work area Size: 48" X 24" X 24" with Minipleat HEPA filter, Pre-filter, Blower, SS table, Magnehelic Gauge, Folding Front door with Polycarbonate sash, UV lamp, Fluorescent Lamp, 5A socket, Air-Gas pet cock, Installation & Testing (DOP, Particle Count & Air Velocity)

**Static Pass Box:** GI powder coated with double door, SS304 base & electro-magnetic interlock.

Inner Size: 20" X 20" X 20" Overall size: 24" X 24" X 26"

**OPTIONAL ITEMS:**

**Dynamic Pass-box:** GI Powder coated with SS304 base construction, HEPA filtration, Blower, double door, electro-magnetic interlocking, Balancing support. Inner Size: 20" X 20" X 20"h

**Garment Storage Cabinet:** GI Powder coated with HEPA filtration, UV lamp, double door etc. Size: 30" X 18" X 48"

### **DOCUMENTS REQUIRED:**

Manufacturer's Test Certificates for all major components including Motors, Air Conditioners, AHU, Filters etc.  
Validation Reports for all Parameters listed above with traceability to NABL or National Standards.

DQ-IQ-OQ documentation with Operation Manual.

**Quote for 1 year Extended Warranty apart from two years Warranty**

### **TENDER ELIGIBILITY CRITERIA FOR CLEAN ROOM**

#### **Eligibility criteria:**

- Average Annual financial turnover during the last 3 years, ending 31<sup>st</sup> March 2018, should be not less than Rs.50 Lakhs, and in no single year less than Rs.40 lakhs.
- Experience of having successfully completed atleast 3 similar works, in Government/Institution sector (IIT, IISc etc), in Microbiology/Biotech/Animal House/Pharma/Medical application, in the last 3 years, each of value not less than Rs.20lakhs. Typical scope of work in these works should be Modular Clean Room work complete with Air Conditioning & HEPA filtration and complete Clean Room Interior work using Clean Room Panels, lighting, epoxy floor. Documentary proofs for Completion of the above works satisfactorily & User Certificate have to be submitted. In case of works in Private Sector, proof of TDS deduction should be produced, as proof additionally. Complete contact details shall be furnished for verification.
- To ensure reliable & prompt Service in Chennai during the Warranty and Annual Maintenance Contract period, Service capability has to be proven. At least one Clean Room in Microbiology/Biotech application should be currently under Annual Maintenance Contract in Chennai, Order copy and recent Service Report copy duly signed by Client to be enclosed. A Resident Engineer/Branch Office should be functional in Tamilnadu, preferably in Chennai, details to be provided.
- Copy of traceability certificates (to NABL) of the Test Instruments viz. Anemometer, Aerosol Photometer & Particle Counter have to be submitted as proof of Validation capability. Copy of Clean Room Test Reports duly signed by Client of atleast one recently installed Clean Room shall also be submitted.
- As this is a functioning lab, the Contractor should ensure minimum disruption of our routine work. Entire Site work should be completed within 4 weeks after supply of all the material at Site. Work Site should be kept neat & tidy and other Labs should not be disturbed or contaminated by this work.
- Failure to submit any of the above details will result in rejection of the Bid.
- **Important:** All bidders should inspect the Site and know the location of AHU, AC units etc, before submitting offer. Along with their Bids, Bidders should submit Layout drawing to show their proposal.