



**भारतीय मानक ब्यूरो**  
केन्द्रीय प्रयोगशाला  
**BUREAU OF INDIAN STANDARDS**  
Central Laboratory



NABL ACCREDITED

प्लॉट नं० 20/9, साईट IV, साहिबाबाद औद्योगिक क्षेत्र  
साहिबाबाद-201010, जिला गाजियाबाद (उ० प्र०)

Plot No. 20/9, Site IV, Sahibabad Industrial Area,  
Sahibabad-201010, Dist. Ghaziabad (U.P.)

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Our Ref: CL/PP/BID-01(07-08)

Date: 10-04-2007

**Subject: SUPPLY OF BIO-SAFETY CABINET.**

Dear Sirs,

Technical & Commercial Bids are invited for the supply of **BIO-SAFETY CABINET**, in separate SEALED covers, which should reach the undersigned latest by 1700 h, on 1<sup>st</sup> May 2007, at the following address.

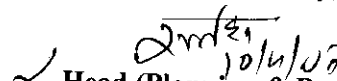
**Head (Planning & Purchase)**  
BUREAU OF INDIAN STANDARDS  
Central Laboratory  
Plot No.20/9, Site-IV,  
Sahibabad Industrial Area, Sahibabad,  
Distt. Ghaziabad-201010 (U.P.)

- The detailed specification(s) of the above mentioned equipment(s)/item(s) are given in Annex-I
- Terms and conditions of supply are given in Annex-II
- The technical Bids shall be opened in the **Conference Hall**, of the BIS-Central Lab, at the address mentioned above at **1500 h on 3<sup>rd</sup> May 2007** and in the presence of such tenderers or their duly authorized representatives, who may like to attend.
- Please note that the separate envelopes containing duly signed Technical & Commercial Bids are sealed properly i.e. either wax sealed or with adhesive cello tape on both ends. **Unsigned & Unstamped Bids in Unsealed /stapled envelopes** and bids **without EMD** shall be summarily rejected. **No exemption** whatsoever for payment of EMD shall be accorded.
- The specification and terms & conditions can also be downloaded from BIS Website – [www.bis.org.in](http://www.bis.org.in)

Thanking you,

Encls: as above

Yours faithfully,

  
Head (Planning & Purchase)

**BUREAU OF INDIAN STANDARDS  
CENTRAL LABORATORY  
EQUIPMENT SPECIFICATION**

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**EQUIPMENT / SPECIFICATION CODE:** BCC 02  
**NAME OF THE EQUIPMENT:** BIO-SAFETY CABINET  
**PROPOSED FOR BIS LABS:** CL CHEM  
**TOTAL QUANTITY REQUIRED:** 1 No.

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**Description:**

**Class:** Class II

**Dimension of Work area:** 1200 mm(Width) X 600 mm(Height) X 600 mm(Depth)

**Construction:**

- Floor mounted console type with Castor-wheels and leveling bolts provided as standard fitment.
- Height of the console not to exceed 2 meters excluding ducting.

**Exterior:** Powder coated Mild steel sheet of 2mm thickness with resin baked finish.

**Interior:**

- (i) Work Table: One piece, Stainless steel (SS Grade\*) of minimum 1.6mm thickness, easily removable and cleanable, shall be perforated at the front and the rear.
- (ii) Work area side walls and rear wall to be one piece construction of Stainless steel(SS Grade\*) of minimum 1.6mm thickness with a smooth radius between rear and side walls.

**Front sliding sash:** Sliding sash shall be constructed of 6mm tempered glass in Aluminium frame; with a maximum opening of 300mm for equipment loading with counter balancing arrangement.

- Ergonomic arm rest of Stainless steel (SS Grade\*) of minimum 1.6mm thickness.
- Foot rest to be provided.

(\*SS Grade X07Cr18Ni9 of IS 6911:1992)

**Illumination & Germicidal UV-Lighting in work area**

- Fluorescent tubelight with electronic ballast: To ensure uniform lighting in the work area
- Light intensity of work area: Average 800-1000 LUX
- U.V. Light with electronic ballast: In-built.
- Facility for interlocking of U.V. & Fluorescent light shall be provided.

### **Static Pressure Manometers:**

- 2 No. Inclined tube manometers to be provided separately for both supply and exhaust HEPA filters.

### **Efficiency of Filters:**

- **Pre-filter** : 10 micron or better, 99% efficiency, non-woven synthetic fibre media (shall be washable and reusable).
- **Supply air filter** : D.O.P tested and certified HEPA filter, efficiency 99.97% efficient down to 0.3 $\mu$ .
- **Exhaust air filter**: D.O.P tested and certified HEPA filter, efficiency 99.97% efficient down to 0.3 $\mu$ .
- Main HEPA filter shall be front-loading.
- Supply & Exhaust HEPA filter to be clamped using closed-cell neoprene gasket.

### **Air-Flow System:**

- Vertical down flow with 70% recirculation in the work area and 30% exhaust through HEPA filter.
- Velocity at discharge of supply air HEPA filter: 0.45 $\pm$  0.10 m/s (90 $\pm$  20 foot per minute).
- Exhaust air to pass through HEPA filter and U.V. light before discharge to the atmosphere.

### **Safety Features:**

- Audio-Visual alarm for HEPA filter choking & Exhaust filter choking
- Sliding sash safe height alarm at 200mm.
- Motor- failure alarm for each motor.

### **Other Features:**

Power Supply: 230 Volts AC , Single phase, 50 Hz.

Fumigation tray: One

Sound level: 60 dB or less.

Following are to be provided:

- 5 A 3 pin-plug point in work area.
- One petcock each on the right & left side back inside the cabinet .
- Balanced and independent motor blower assemblies for main air supply and for exhaust air.
- Separate electronic speed regulators for motor blower assemblies to be located outside the control panel.
- Bellows to isolate vibration from main & exhaust motor blowers to work area.
- Electronic control panel mounted on the front of the cabinet.
- Cabinet shall have unitized drain channels on all sides of work surface to

facilitate cleaning.

- All external plumbing connections to the petcocks & the drain channels shall be provided through the back of the cabinet and not the sides.

**Accessories (Optional):**

- Electronically controlled gas flow .
- Stand-by mode for supply air-flow.

**Pre-installation requirements:**

Specify details of pre-installation including civil and electrical work. Installation and commissioning of the equipment will be the sole responsibility of the supplier.

**Training:**

Training to be provided on operation and routine maintenance at our laboratory after satisfactory installation.

**Warranty :**

Equipment to be warranted for a period of minimum 3 years from the date of satisfactory installation including the supply of necessary accessories and spares.

## ANNEX-II

### TERMS & CONDITIONS

1. The BUREAU gives FIRST PREFERENCE in its purchase to goods bearing ISI CERTIFICATION MARK and second preference to those which conform to the relevant Indian Standard Specifications.
2. The delivery of the stores is required to be made within 30 days of receipt of order. If, it is not possible for you to effect delivery within the period, you are required to specify the date by which you can guarantee delivery of the stores.
3. The **Technical & Commercial Bids should be sealed and sent separately in sealed envelopes & duly superscribed (giving Equipment name, technical/financial bid, due date of opening & Ref. No. on the top of the envelope).** Such Bids shall remain valid for a period of 90 days from the date of opening.
4. Quotations/Bids, qualified by indefinite expressions as "Subject to immediate acceptance, Subject to prior sale" etc. and incomplete quotations are liable to be summarily rejected.
5. The Bids should clearly give break-up of cost of each equipment. The rates quoted should separately indicate Basic Cost, Excise Duty, Sales Tax, P&F charges, Freight, Insurance, VAT etc. Rates quoted should specifically state Sales Tax, Excise Duty or any other taxes/charges. In absence of any such stipulation, it will be presumed that the prices include all such charges and no claim for the same shall be entertained. **Form C/D shall not be provided by BIS.**
6. Each tender document shall be accompanied with **EMD of 3% of cost of the equipment.** The demand draft for the EMD amount shall be drawn in favour of BUREAU OF INDIAN STANDARDS payable at Sahibabad/Ghaziabad. The sealed envelope containing EMD should be super scribed "**EMD**" and **stapled separately with the envelope containing the commercial Bids. No disclosure of EMD in Tech. Bid.**
7. BIS shall pay **90%** of the cost after satisfactory installation & commissioning and the Balance of **10%** as **contract performance security** would be paid after expiry of warranty period. However other terms of payment for contract performance security can also be considered, if so stated clearly.
8. The **warranty period** of the equipments **may be stated clearly** in the Technical Bids. In case the **same is not found stated**, it will be presumed that **warranty period as mentioned in their respective specifications of the tender document (if specified), is applicable**
9. Please mention clearly in the Technical Bids regarding address of **arrangements for service/repair** of the equipments are available. Suppliers having such arrangements near Delhi/Ghaziabad would be preferred.
10. All goods received would be subjected to inspection, by BIS before or after receipt or commissioning (as applicable) and the decision of BIS shall be binding. Rejected items/goods/stores shall be removed by the supplier at his own cost and risk, within 30 days of receipt of notice for the removal of such goods, and no liability, whatsoever, on the Bureau shall be attached for the rejected/disapproved goods/items/stores.
11. The Bureau reserves the right to accept or reject summarily and or all tenders in whole or part without assigning any reason whatsoever.
12. The Bureau takes no responsibility for delay, loss or non-receipt of tenders after dispatch.
13. **In case of non compliance with the Terms & Conditions of the contract, the Bureau reserves its right to:**
  - a) Cancel/rescind/revoke the order if supply is not made in time and is not conforming to the required specification.
  - b) Impose Penalty up to 1% of the total value of the order for a delay of every seven days after the schedule date subject to the ceiling of a maximum of 10% of the total value of the order.
14. All questions, disputes or difference arising under, out of or in connection with this tender enquiry shall be subject to the exclusive jurisdiction of Delhi/ Ghaziabad Courts.