

**CENTRE FOR BIOMEDICAL ENGINEERING  
INDIAN INSTITUTE OF TECHNOLOGY-DELHI  
HAUZ KHAS, NEW DELHI-110 016**

**Dated: 05.01.2015**

**Notice Inviting Quotations**

Sealed quotations in separate envelope of technical and commercial bid kept in one sealed outer envelope, are invited for **Fume Hood** as per specifications given below. Your sealed quotation should reach within 15 days from the date of advertisement to, **Dr. Neetu Singh, Block II-388, Centre for Biomedical Engineering, Indian Institute of Technology, Delhi (IIT Delhi), Hauz Khas, New Delhi-110016**. Your quotation must be super-scribed "**Fume Hood**".

# TECHNICAL SPECIFICATIONS

## FUME HOOD

**1. Testing Standard:** The hood should be tested as per

**ASHRAE 110 -1995 - AMERICAN STANDARDS FOR FUME HOOD TESTING**

### **2. Specifications:**

<b>Dimension</b>	1800L x 750W x 2400H in mm
<b>Bed Size</b>	1650 x 600 in mm
<b>Material of Construction</b>	18 gauge electro galvanized sheet with epoxy polyester powder coating.
<b>Door</b>	Single, Vertical, Sliding, Toughened Glass door, balanced with counter weights, sash weights and wire rope etc.
<b>Ducting</b>	Rigid ducting of FRP of 200mm dia. 4mm thick rigid FRP pipe should be provided with suitable rain- hood.
<b>Baffle</b>	A stable, non – adjustable baffle with a single slot on the back baffle to aid in distributing the flow of air into and through the hood. The baffle shall be spaced out from the back liner and shall be removable for cleaning.
<b>Impeller</b>	Dynamically balanced FRP Impeller
<b>Baffled By</b>	3 MM thick FRP sheet
<b>Casing</b>	6MM thick FRP Bisphenol ‘A’ fumerate Resin.
<b>Coupling</b>	Direct
<b>Sash</b>	The sash shall be of glass with vertical rising frame. The bottom of the sash frame shall have a full length handle. The sash shall be counterbalanced with a weights to prevent titling and binding during operation. The glass panel shall be 5mm toughened glass.
<b>Suction Expected</b>	1000 cfm

<b>Bottom Arrangements</b>	18 gauge electro galvanized sheet with epoxy polyester powder coating.
<b>Colour</b>	<b>IVORY/ BLUE</b>
<b>Flooring</b>	18 ± 1 mm thick Dished Black Granite top with skirting should be Provided
<b>Fume hood under-cabinet</b>	Detachable design general purpose twin cabinets fabricated out of GI sheet, consisting of, <ul style="list-style-type: none"> <li>- twin doors in double wall const.</li> <li>- flushed type recessed handle.</li> <li>- 90 ° special design door hinges in Zn-Al alloy const.</li> <li>- Chemical resistant FRP Lining inside the cabinet wall.</li> <li>- recessed base frame in heavy duty GI const.</li> <li>- twin castors for easy removal of the cabinet.</li> </ul>

### 3. Amenities (Included):

<b>Lighting</b>	1 No. 4 feet CFL Tube of 20 Volts should be Provided.						
<b>Electrical Arrangements</b>	Electrical Services with internal wiring (all in non-FLP const.) <ul style="list-style-type: none"> <li>- 5.0A piano type switch for light - Northwest or eq. Make</li> <li>-16A, 3Ph MCB for Fan - Northwest or eq. Make</li> <li>-16A, 1Pole MCB for Power - Northwest or eq. Make</li> <li>- 5/15A 3-pin Socket with switch/ MCB - Northwest or eq. Make</li> </ul>						
<b>Cable Entering Port</b>	For easy access of cables from fume hood to electrical sockets.						
<b>Sink &amp; Water Tap</b>	1 No of water tap oval shaped cup sink in ceramic						
<b>Service Valves - 4 Nos. (LHS)</b>	It should have body in forged brass const., extended spindle in brass construction, color coded knobs in plastic const. angular shaped serrated nozzles, in epoxy coated forged brass const. 1.5mt. long flexible tubing with end fittings for following services: <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;"><b>Services</b></td> <td style="width: 50%;"><b>Tube Construction</b></td> </tr> <tr> <td>Compressed Air</td> <td>- PU-4 1</td> </tr> <tr> <td>Vacuum</td> <td>- SS braided Teflon Hose 1</td> </tr> </table>	<b>Services</b>	<b>Tube Construction</b>	Compressed Air	- PU-4 1	Vacuum	- SS braided Teflon Hose 1
<b>Services</b>	<b>Tube Construction</b>						
Compressed Air	- PU-4 1						
Vacuum	- SS braided Teflon Hose 1						

	Nitrogen	- PU-4 1
	Potable Water	- Nylon braided PVC Hose

#### 4. Centrifugal Motor & Blower

<b>Construction</b>	The Centrifugal blower is made of PP- FRP dulvin type for effective exhaust of harmful gases and vapors.
<b>Capacity</b>	3 phase 1 HP 2800 RPM TEFC branded motor will provide a suction capacity of 800-1000 cfm (at different sash positions)
<b>Standard</b>	The impeller will be of PP-FRP construction. As per IS 325.

**5. Ducting:** FRP rigid ducting of 200mm diameter should be provided from the blower to the duct collar. The total ducting should include flanges, bends, brackets, exhaust stacks & necessary clamps.

**6. Certification:** SEFA -8 (Scientific Equipments and Furniture Association)

The Bidder must have valid SEFA Executive membership

#### 7. **Quantity: 2**

#### **Terms & Conditions:**

1. The quotations must have validity of at least four months.
2. Sealed quotations should be in separate envelopes of technical and commercial bid kept in one sealed outer envelope.
3. Please quote prices of imported items at FOB (Freight on Board) IIT Delhi inclusive of all taxes, freight and delivery charges.
4. The products will be used for educational purposes. Any applicable academic institution discounts should be offered and stated.
5. Detailed Brochures should accompany the offer.

6. If the bidder is an authorized dealer then the authorized Indian dealership certificate from the principles should be enclosed.
7. Two year comprehensive warranty.
8. Mode of payment as per institution rules
9. In case the items are proprietary products of the company, a proprietary item certificate stating the same must be provided.
10. Institute reserves the right to accept or reject any or all the quotations without assigning reasons thereof.
11. Details of User List with phone number and email ID should be provided.