INDIAN INSTITUTE OF TECHNOLOGY DELHI
HAUZ KHAS NEW DELHI

Date: 07/03/2012

Notice Inviting Quotation

Quotations are invited for the purchase of Fume Hood (one in number) at the Department of Textile Technology. Interested manufacturers / suppliers are required to submit their quotations as per the specifications given below. The sealed Quotations are to be submitted in two Separate envelopes;

A - for Technical Quote (Specifications) &
B - for Financial Quote
(For details, see Annexure I)

Both these envelopes should be further enclosed in an outer envelope, which should also be sealed and addressed to, clearly mentioning on top of the envelope "Quotations for Fume Hood."

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The quotations should reach the above office of **by 5.00PM on 21/03/2012**. If needed, the suppliers may be asked to make a technical presentation before the committee.

Institute reserves the right to accept or reject any of the offers without assigning any reasons.

Specifications of Fume Hood (1 in number)

S. No.	Specification	Essential requirement
1.	Type	• Floor mounted • Aerodynamic design
2.	Dimensions	• Overall dimensions with base cabinet: 1800 mm W X 1000 mm D X 2400 mm H • Fume hood dimensions: 1800 mm W X 1000 mm D X 1600 mm H • Base cabinet dimensions: 1800 mm W X 640 mm D X 700 mm H • Inside fume hood working volume: 1520 mm W X 750 mm D X 1155 mm H • Bed size: 1520 mm W X 750 mm D
3.	Material of Construction of superstructure	• Galvanized iron (GI) as per IS 277: 2003 standard • 1.0 mm thickness for all sheet metal panels • 1.5 mm for corner post • 1.2 mm for back pillars
4.	Powder coating	• Pre-treated and powder coated with highly chemical resistant resin film having dry film thickness of 70 to 80

		microns. Should pass all conformity performance tests as per IS standards
5.	Construction (Interior)	• Chemical & heat resistant, fire retardant, smooth finish, easily cleanable panels, made out of durable integral work walls (≥ 6 mm thick). ASTM flame spread index < 25
6.	Front Top Panel	• Easy to open hinged top panel for easy access to flow control valve and electrical lighting fixtures for maintenance
7.	Corner Post	• Placed on left and right hand side of the fume hood to house the utility line fittings and electrical receptacles
8.	Active Kinetics exhaust system	• Active kinetics exhaust system (for light, normal & heavy fumes) with baffle to ensure rapid exhaust of fumes
9.	Airfoil	• Aerodynamic design, horizontal fixed airfoil mounted on the worktop, material of construction - SS 304 (≥1.2mm)
10.	Worktop	• Chemical resistant splash & spillage proof, made of Black Granite (18 ±1 mm thick), skirting of 15 mm from all sides for no chemical spillage
11.	Sink, Water tap with drain arrangement	• Sink material should be suitable for slightly corrosive chemicals • Water tap on left & right back side of worktop • Sink should have a trap for waste collection • Dimensions - oval shaped 100 mm X 200 mm
12.	Shutter	• Concealed type, vertical rising shutter counter-balanced with pulley and counter-weight system. • 2-3 doors within the overall shutter structure for horizontal sliding • Material of construction - Toughened Float Glass (≥4 mm thick). • Smooth and light shutter operation • Clear open-able vertical height = 750 mm
13.	Wet & Dry Service valves	• Remotely operated colour coded Brass Needle Valves for fine control over utilities (as per DIN 12920 norms) • Total 6 nos. service valves (3 on LHS and 3 on RHS) with PU plumbing with 6 mm internal dia, withstands up to 15 kgf pressure • 2 for Raw water (PU) (1 on LHS and 1 on RHS) • 2 for Nitrogen(PU) (1 on LHS and 1 on RHS) • 2 for Vacuum(Teflon) (1 on LHS and 1 on RHS)
14.	Internal nozzles	• Brass powder coated fittings in the fume hood to avoid the intermingling of the flexible tubes • Taps tapered in shape to use with flexible tubing of sizes from ¼ inch to ½ inch in diameter
15.	Lighting	• Fluorescent light (40 watt, 2 Nos.) with vapour-proof fitting for proper illumination
16.	Maintenance ports	• Top panel should be open-able for easy maintenance of tube light and flow control valve • Service panel for maintenance of utility valves and tubing
17.	Electrical Utilities	• 4 nos. electrical sockets (2 RHS + 2 LHS) (230 V, 6/16 A, 50 Hz) • 4 nos. MCBs with blower NO/NC switch with built –in starter & light switch on front fascia • Cables & wires 'Fire Retardant' grade
18.	Built-in Starter	• The electrical wiring to have built-in starter, suitable to blower motor capacity
19.	Cable entering port	• For easy access of cables from fume hood to electrical sockets
20.	Chemical Storage Base	• Dimensions: 1800 mm (W) X 640 mm (D) X 700 mm (H) • Ready to receive the fume hood at its top

	Cabinet	• Chemical resistant material internal lining to the cabinet walls • Two exhaust ports connected to the fume hood exhaust system internally • Complete powder coated compatible colour combination rigid structure to support Fume hood • One removable horizontal partition to store chemicals. • Double skin hinged doors with hinges made of material suitable for chemical resistance and hassle free operations in the corrosive lab atmosphere • Trays made of chemical resistant material for chemical storage • High quality latching system for the base cabinet doors
21.	Level adjusting screws	• Made of SS Bolts to adjust the fume hood level by ± 10 mm
22.	Exhaust Port	• To ensures that the fumes are exhausted smoothly without any turbulence at the exhaust port • Low noise level. Dia. 250 mm
23.	Flow control valve	• To regulate airflow
24.	Noise Level	• < 70db at 1 meter from fume hood
25.	Centrifugal Blower	• Construction - SISW type, chemical & heat resistant PP + FRP blower with aerodynamically balanced PP impeller, with drain plug • Air Suction Capacity - 750 CFM confirming to international face velocity norms and as per safe fume hood airflow pattern • Motor - Branded make, 1 HP Motor 3 Phase TEFC, IP 55, Class F, continuous rating, as per IS 325 • Drive – Direct drive
26.	Ducting	• Chemical resistant PP + FRP (3mm + 2mm) rigid & flexible ductwork from Fume hood to exhaust stack point with weatherproof canopy. • Total ducting with horizontal, vertical members, flanges, bends, bracketed supports and gooseneck exhaust stack. Duct dia. 250 mm
27.	Apparatus Holding Grid	• Grid made up of Duralumin Powder coated rod (Dia. 12.7 mm) to hold the apparatus • Should cover the entire length of the fume hood and built-in at fume hood backside, installed at the distance of 150 mm from backside of fume hood.

Annexure I

Envelope A: Technical Quote: The following details are to be enclosed *(Mention clearly on this envelope –* ***Technical Quote****)*

1. Technical brochures mentioning all details with complete address of the principals.
2. A compliance chart based on the specifications as per the NIQ.
3. Any optional equipment / accessory / spares advised to be included separately.
4. Installation requirements including water supply, UPS, etc.
5. List and addresses of organizations where the equipment has been supplied in last 3 years in India.
6. Details of other equipment supplied to IIT Delhi specifying the Department/ centre / lab to which the equipment was supplied. Also mention if the equipment is being maintained by your organization.
7. Address of the technical office, in India, with telephone and FAX numbers. Kindly clarify the type of support available in India.
8. If quote is for imported equipment supplied through Indian Agent, Sole Agency-ship certificate on the letterhead of the principal company, if quotation is from an Indian Agent.
9. Proprietary Item Certificate from the principals, if applicable.
10. Copy of the certificate of a registered importer from Ministry of Commerce or Finance if the quotation is being submitted by an Indian agent.

Envelope B: Financial Quote: The following details are to be enclosed/ ensured. *(Mention clearly on this envelope –* ***Financial Quote****)*

1. The quotations for the equipment in foreign exchange, if it is to be imported. The cost of spares and optional equipment/accessories to be quoted separately. The cost should be based on CIF, New Delhi. If equipment is indigenous, the quote should be in INR and all taxes applicable should be mentioned clearly.
2. Institute makes payment after delivery and successful installation. In case the payment terms are different, it should be mentioned clearly. If equipment is to be imported, the address of the company in whose name the LC is to be opened should be stated.
3. The comprehensive Warranty period.
4. The details of the AMC after the warranty period.
5. Cost for Installation and training at site, if applicable.
6. Validity of the quote should be minimum 90 days.
7. The delivery period to be clearly specified.