INDIAN INSTITUTE OF TECHNOLOGY GOA

At Goa Engineering College Campus
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PAN: AABAI1653D
TAN: BLRI08261B

Enquiry No: IITGOA/2018-19/094 **Date: 05/02/2019**

IIT Goa invites sealed quotations in two bid form for the supply of below mentioned items.

Sl. No.	Description of Item	Qty
1	Chemical Fume Hood **(Detailed Specifications Attached)**	02 No.
2.	Flammable Liquid Storage cabinets **(Detailed Specifications Attached)**	02 No.
3.	Chemical Cabinet **(Detailed Specifications Attached)**	01 No.

Terms and conditions:

1. Quotation must be valid for at least 90 days.
2. The GSTIN should invariably be mentioned in your offer.
3. Kindly attach a compliance certificate along with the technical quote.
4. Prices:
   I) For Import Supplies:
   a) It is mandatory to quote price in CIF/CIP Goa basis only with separate cost breakup.
   b) In case of Multiple options of same product, bidders are requested to quote only one best option and not multiple options.
   c) All local taxes, customs duty and clearance charges will be borne by the Institute as applicable.
   d) Payment terms: 90% payment by letter of credit (90% payment will be released on receipt of documents without any discrepancies and balance 10% will be paid by wire transfer after satisfactory installation and commissioning).

   II) For Indigenous Supplies:
   a) In case of Multiple options of same product, bidders are requested to quote only one best option and not multiple options.
   b) Payment terms: Within 30 days after the delivery and installation of the item at IIT GOA.
5. Delivery and installation should be made within 4-6 weeks of getting a confirmed order.

6. The suppliers shall provide the banking details along with their quote on their letterhead duly signed and stamped.
7. IIT Goa reserves the right to accept and/or reject any/all bids without assigning any reason.
8. Quotations shall be submitted in two parts;
    1) **Part – I (Technical)** should contain all the technical details and specification of the product. It should contain unpriced bid along with terms and conditions, compliance certificates, proprietary certificates (if applicable), any other certificates/details etc. This envelope should be marked as "Technical Bid"
    2) **Part -II (Financial)** The financial bid of the above item should be in a sealed envelope marked as "Financial Bid" and should contain financial terms and conditions.
9. For any clarification, you may kindly contact Dr. Rishikesh Narayan (e-mail: rishikesh.narayan@iitgoa.ac.in) and Stores & Purchase Department (email: purchase@iitgoa.ac.in) till 15/02/2019.
10. All sealed quotations must reach to the Assistant Registrar (Stores & Purchase), IIT Goa, at Goa College of Engineering Campus, Farmagudi, Ponda, Goa by 17.00 Hrs on or before 19th February, 2019".

Sd/-

Asst. Registrar (S&P)

Technical Specification Sheet

1. Chemical Fume Hood:

Number of Fume Hood Required: **02 (TWO)**

1.1 Size Requirements for the Fume Hood:

S. Nr.	Item	Specification
1.	**Overall Dimension with base cabinets (W*D*H)**	2400 mm X 900 mm X 2400 mm
2.	**Fume Hood Dimensions**	2400 mm X 900 mm X 1500 mm
3.	**Base Cabinet Dimensions**	1100 mm X 600 mm X 650 mm
4.	**Fume hood Working Volume (Inside)**	2100 mm X 650 mm X 1150 mm
5.	**Working Bed Size**	2100 mm X 650 mm

1.2 Other Technical Specifications for the Fume Hood:

S. Nr.	Item	Specification
1.	**Design Basis**	Compliant with**:** **American Design Standard: ASHRAE110-2016** Including "Tracer gas containment test" **European Design Standard: EN-14175- 2003** 'Inner Plane Containment test'
2.	**Design Structure**	Aerodynamic, Floor Mounted
3.	**Airflow Type**	Low constant volume (Suitable for AC environment)
4.	**Material of Construction of the Fume Hood structure**	Galvanized iron, minimum 1 mm thickness on all sides
5.	**Front Top Panel**	Easily openable hinged top panel for convenient access to flow control valve, Lighting etc..
6.	**Airfoil**	Aerodynamic Design, Horizontal fixed airfoil, Teflon coated
7.	**Worktop**	Chemical resistant splash & spillage proof dished *'Granite'* worktop (min. 16 mm thick). Skirting of min. 15 mm from all sides for no chemical spillage.
8.	**Sink, Water Tap with Drain**	Two sinks sealed with silicon sealant in the worktop
9.	**Sash**	Vertical rising sash counter-balanced with pulley and counter-weight system. Toughened Glass sash (min. 4 mm thick). Smooth and light sash operation. Clear openable height of min. 750 mm. Impact Resistance of the sash (Toughened Glass) should be higher than other sash materials (like Safety Glass and Polycarbonate).
10.	**Wet & Dry Service valves**	Remotely operated Valves for fine control over utilities (as per DIN 12920 norms), total **6 nos.** service valves with PU plumbing, should be able to withstand up to 5kgf pressure (3 LHS+3 RHS)

		• 2 for Raw water (PU) • 2 for Nitrogen (PU) • 1 for Vacuum (Teflon) • 1 for Compressed Air (PU)
11.	**Lighting**	Fluorescent light (40 watt, 2 Nos.) with vapor-proof fitting for proper illumination. Intensity approx.. 400 lux at worktop level.
12.	**Electrical Utilities**	6 nos. electrical sockets 'North-West' make (230 V, 6/16 A, 50 Hz), 6 nos. 'North-West' make MCBs with blower NO/NC switch with Built-in starter & light switch on front fascia. Cables & wires 'Fire Retardant Low Smoke' grade.
13.	**Chemical Storage Base Cabinet (Ventilated & on castors)**	Two cabinets with following features: • Made from GI sheet with Highly corrosion resistant coating • Cabinet integral work walls should be Special chemical & heat resistant, smooth finish, easily cleanable panels • Two exhaust ports connected to the fume hood exhaust system internally. • One removable horizontal partition to store chemicals. • PP Trays for chemical storage. • Cabinets on castors.
14.	**Apparatus Holding Grid *(Lattice Assembly)***	A good quality grid to hold the apparatus. It should be placed at the backside and should cover the entire length of the worktop.
15.	**Noise level**	< 70 db at 1 meter from fume hood

1.3 Suction Pump required for the Fume Hoods and Chemical Cabinets: Silent, highly efficient, suction pump required to be connected with the fume hood and the cabinets. The suction pump should comply with international safe velocity standards. (**2 Nos.** for the Fume Hoods and **1 Nos.** for the Chemical Cabinet)

Sr. No	Specification	Description
1	Construction	SISW type, chemical & heat resistant PP + FRP blower with aerodynamically balanced PP impeller, with drain plug.
2	Air Suction Capacity	2200 CFM confirming to international face velocity norms and as per safe fume hood airflow pattern.
3	Motor	Min. **2 HP Motor,** 3 Phase TEFC, IP 55, Class F, continuous rating as per IS 325. Should be of reputed make

1.4 Other requirements for the fume hood:

1. The bidder / parent company should possess the key Professional staff, at least one, in his organization with good knowledge of codes and standards like SEFA, OSHA, ASHRAE 110 and NFPA 45. Such professionals should have a valid membership of ASHRAE and in addition membership of any of the international governing standards.
2. The Bidder should be an Original Equipment Manufacturer of Fume Hood and valid OEM Certificate should be enclosed.
3. Bidder Should have In-House ASHREA Testing facility.
4. At least 01 similar installation /work of laboratory Fume Hoods completed with Govt. / Semi Govt. / Autonomous body /PSU research/educational organization in last 2 years. Work completion certificate is to be attached.
5. Bidder should have valid certificate of ISO- 9001-2015, ISO- 14001: 2015 and OHSAS 18001: 2007 for lab furniture manufacturing, systems, equipment & Laboratory Furniture etc. main or general scope etc.

2. Flammable Liquid Storage Cabinets:

Flammable liquid storage cabinets are required to store flammable liquids predominantly lab solvents and chemicals. The cabinets should be equipped with vents to be connected to suction/exhaust pump.
Number of FSC cabinets required: **2 (Two)**

2.1 Technical Specifications:

Min. External Dimensions (H*W*D)	65 x 43 x 18 (inches)
Min. Capacity (litres)	170
Adjustable Shelves	2
Approvals	FM, N, O
Doors	2 doors, Manuel Opening

3. Chemical Storage Cabinet:

Number of Cabinet required: **1 (ONE)**
3.1 Technical Specifications: Floor Mounted Full Height Chemical Storage Cabinets (2 Glass Door, Phenolic Resin Laminate Liner, 4 Adjustable Shelves & 1 Fix, 15 PP trays.)
Dimensions: 1000 mm (L) x 460 mm (D) x 1800 mm (H)

To Note:
1. Vendor who can supply all the required items will be preferred.
2. Regular maintenance support for all the above-mentioned items after the warranty period (upto 3 years since the day of installation) must be assured.