



I.I.T

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

KALYANPUR, KANPUR-U.P.

208016

TENDER REFERENCE NO.: IITK/CHM/SD/2020/01

BID SUBMISSION END DATE- 03.08.2020

TENDER DOCUMENTS

FOR

“Purchase of Fume Hoods and Lab Furniture”

BID DOCUMENT

Online bids (Technical & Financial) from eligible bidders which are valid for a period of 120 days from the date of Technical Bid opening (i.e. 04.08.2020) are invited for and on behalf of the Assistant Registrar, IIT Kanpur for “**Purchase of Fume Hoods and Lab Furniture**”.

Name of Work	Fume Hoods and Lab Furniture
Date of Publishing	13.07.2020 (16:00 hrs)
Clarification Start Date and Time	13.07.2020 (16:00 hrs)
Clarification End Date and Time	03.08.2020 (16:00 hrs)
Queries (if any)	No queries will be entertained after clarification end date and time
Bid Submission Start Date	13..07.2020 (16:00 hrs)
Last Date and time of uploading of Bids	03.08.2020 (16:00 hrs)
Last Date and time of submitting , EMD and other documents at IIT Kanpur (if any)	04.08.2020 (12:00 hrs)
Date and time of opening of Technical Bids	04.08.2020 (16:00 hrs)
Date and time of opening of Financial Bids	Will be separately notified for Technically shortlisted/qualified bidders

Interested parties may view and download the tender document containing the detailed terms & conditions from the website <http://eprocure.gov.in/eprocure/app>

(The bids have to be submitted online in electronic form on www.eprocure.gov.in only. No physical bids will be accepted.)

INSTRUCTION FOR ONLINE BID SUBMISSION

The bidders are required to submit soft copies of their bids electronically on the Central Public Procurement (CPP) Portal i.e. <http://eprocure.gov.in/eprocure/app> , using valid Digital Signature Certificates. The instructions given below are meant to assist the bidders in registering on the CPP Portal, prepare their bids in accordance with the requirements and submitting their bids online on the CPP Portal.

REGISTRATION

- (i) Bidders are required to enroll on the e-Procurement module of the Central Public Procurement Portal (URL: <https://eprocure.gov.in/eprocure/app>) by clicking on the link “Online Bidder Enrolment” option available on the home page. **Enrolment on the CPP Portal is free of charge.**
- (ii) During enrolment/ registration, the bidders should provide the correct/ true information including valid email-id & mobile no. All the correspondence shall be made directly with the contractors/ bidders through email-id provided.
- (iii) As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts.
- (iv) For e-tendering possession of valid Digital Signature Certificate (Class II or Class III Certificates with signing key usage) is mandatory which can be obtained from SIFY /nCode/eMudra or any Certifying Authority recognized by CCA India on eToken/ SmartCard.
- (v) Upon enrolment on CPP Portal for e-tendering, the bidders shall register their valid Digital Signature Certificate with their profile.
- (vi) Only one valid DSC should be registered by a bidder. Bidders are responsible to ensure that they do not lend their DSCs to others which may lead to misuse and should ensure safety of the same.
- (vii) Bidders can then log into the site through the secured login by entering their userID/ password and the password of the DSC/ eToken.

SEARCHING FOR TENDER DOCUMENTS

- 1) There are various search options built in the CPP Portal to facilitate bidders to search active tenders by several parameters. These parameters could include Tender ID, organization name, location, date, value, etc. There is also an option of advanced search for tenders, wherein the bidders may combine a number of search parameters such as organization name, form of contract, location, date, other keywords, etc., to search for a tender published on the CPP Portal.
- 2) Once the bidders have selected the tenders they are interested in, they may download the required documents / tender schedules. These tenders can be moved to the respective ‘My Tenders’ folder. This would enable the CPP Portal to intimate the bidders through SMS / e-mail in case there is any corrigendum issued to the tender document.
- 3) The bidder should make a note of the unique Tender ID assigned to each tender; in case they want to obtain any clarification / help from the Helpdesk.

PREPARATION OF BIDS:

- (i) For preparation of bid Bidders shall search the tender from published tender list available on site and download the complete tender document and should take into account corrigendum if any published before submitting their bids.
After selecting the tender document same shall be moved to the ‘My favourite’ folder of bidders account from where bidder can view all the details of the tender document.
- (ii) Bidder shall go through the tender document carefully to understand the documents required to be submitted as part of the bid. Bidders shall note the number of covers in which the bid

documents have to be submitted, the number of documents – including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid.

- (iii) Any pre-bid clarifications if required, then same may be obtained online through the tender site, or through the contact details given in the tender document.
- (iv) Bidders should get ready in advance the bid documents in the required format (PDF/xls/rar/dwf/jpg formats) to be submitted as indicated in the tender document/schedule. **Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned document.**
- (v) Bidders can update well in advance, the documents such as experience certificates, annual report, PAN, EPF & other details etc., under “My Space/ Other Important Document” option, which can be submitted as per tender requirements. This will facilitate the bid submission process faster by reducing upload time of bids.

SUBMISSION OF BIDS:

- (i) Bidder should log into the site well in advance for bid submission so that he/ she upload the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay.
- (ii) Bidder should prepare the EMD as per the instructions specified in the NIT/ tender document. The details of the DD/BC/BG/ others physically sent, should tally with the details available in the scanned copy and the data entered during bid submission time. Otherwise the uploaded bid will be rejected.
- (iii) While submitting the bids online, the bidder shall read the terms & conditions (of CPP portal) and accepts the same in order to proceed further to submit their bid.
- (iv) Bidders shall select the payment option as offline to pay the EMD and enter details of the DD/BC/BG/others.
- (v) Bidder shall digitally sign and upload the required bid documents one by one as indicated in the tender document.
- (vi) Bidders shall note that the very act of using DSC for downloading the tender document and uploading their offers is deemed to be a confirmation that they have read all sections and pages of the tender document without any exception and have understood the complete tender document and are clear about the requirements of the tender document.
- (vii) Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned document. For the file size of less than 1 MB, the transaction uploading time will be very fast.
- (viii) **If price quotes are required in XLS format, utmost care shall be taken for uploading Schedule of quantities & Prices and any change/ modification of the price schedule shall render it unfit for bidding.**
Bidders shall download the Schedule of Quantities & Prices i.e. Schedule-A, in XLS format and save it without changing the name of the file. Bidder shall quote their rate in figures in the appropriate cells, thereafter save and upload the file in financial bid cover (Price bid) only.
If the template of Schedule of Quantities & Prices file is found to be modified/corrupted in the eventuality by the bidder, the bid will be rejected and further dealt as per provision of clause no 23.0 of ITB including forfeiture of EMD.
The bidders are cautioned that uploading of financial bid elsewhere i.e. other than in cover 2 will result in rejection of the tender.
- (ix) Bidders shall submit their bids through online e-tendering system to the Tender Inviting Authority (TIA) well before the bid submission end date & time (as per Server System Clock). **The TIA will not be held responsible for any sort of delay or the difficulties faced during**

the submission of bids online by the bidders at the eleventh hour.

- (x) After the bid submission (i.e. after Clicking “Freeze Bid Submission” in the portal), the bidders shall **take print out of system generated acknowledgement** number and keep it as a record of evidence for online submission of bid, which will also act as an entry pass to participate in the bid opening.
- (xi) Bidders should follow the server time being displayed on bidder’s dashboard at the top of the tender site, which shall be considered valid for all actions of requesting, bid submission, bid opening etc., in the e-tender system.
- (xii) All the documents being submitted by the bidders would be encrypted using PKI (Public Key Infrastructure) encryption techniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of bid opening. The confidentiality of the bids is maintained using the secured Socket Layer 128-bit encryption technology.

ASSISTANCE TO BIDDERS:

- (i) Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender or the relevant contract person indicated in the tender. The contact number for the helpdesk is 0512-259-7826 between 10:30 hrs to 17:00 hrs.
- (ii) Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24X7 CPP Portal Helpdesk. The 24 x 7 Help Desk Number 0120-4200462, 0120-4001002 and 0120-4001005. The helpdesk email id is **support-eproc@nic.in**

INSTRUCTION FOR e-PROCUREMENT

1. PREPARATION AND SUBMISSION OF BIDS:

- a. The detailed tender documents may be downloaded from <http://eprocure.gov.in/eprocure/app> till the last date of submission of tender. The Tender may be submitted online through CPP Portal <http://eprocure.gov.in/eprocure/app>
- b. The bidder should submit the bid online in two parts viz. Technical Bid and Financial Bid. Technical Bid should be upload online in cover 1 and Financial Bid in “.Xls” should be upload online in cover-2

2. SUBMISSION OF THE BID : All interested eligible bidders are requested to submit their bids online on CPP Portal: <http://eprocure.gov.in/eprocure/app> as per the criteria given in this document:

- a. Technical Bid should be upload online in cover-1.
- b. Financial Bid should be upload online in cover-2

Both Technical and Financial Bid covers should be placed online on the CPP Portal (<http://eprocure.gov.in/eprocure/app>).

3. TECHNICAL BID: Signed and Scanned copies of the Technical bid documents as under must be submitted online on CPP Portal: <http://eprocure.gov.in/eprocure/app> .

- a) **List of Documents to be scanned and uploaded (Under Cover-1) within the period of bid submission: -**
 - i. Scanned copy of Bank details. (Bank details of principal supplier in case of Import shipments)
 - ii. Scanned copy of work experience.
 - iii. Scanned copy of certificate of GST. (GSTIN of Indian Agent in case of Import Shipments)
 - iv. Scan copy of tender acceptance letter.
 - v. Scanned copy of specifications or brochures (if any).
 - vi. Scanned copy of other document mentioned in tender document (if any)
- b) **For Import Shipments – Shipping Terms Ex-Works/FOB are preferred.**

NOTE - no indication of the rates/amounts be made in any of the documents submitted with the TC-BID.

4. Financial Bid

- c. The currency of all quoted rates shall be Indian Rupees. All payment shall be made in Indian Rupees.
- d. In preparing the financial bids, bidders are expected to take into account the requirements and conditions laid down in this Tender document. The financial bids should be uploaded online as per the specified “.Xls” format i.e. Price Bid Excel sheet attached as ‘.Xls’ with the tender and based on the scope of work, service conditions and other terms of the Tender document. It should include all costs associated with the Terms of Reference/Scope of Work of the assignment.

- e. The Financial Proposal should be inclusive of all applicable taxes, duties, fees, levies, and other charges imposed under the applicable laws. The rates quoted in the Tender are inclusive of all applicable taxes, duties etc. **except service tax**. The service tax component shall be re-immersible by the department after receipt of paid challans etc. if applicable.

5. Last Date for Submission of Tender:

- a. Online bids complete in all respects, must be submitted on or before the last date and time specified in the schedule of events.
- b. The IIT, Kanpur may, at its own discretion, alter/extend the last date for submission of tenders.

6. Bid Validity

- a. All the Bids must be valid for a period of 120 days from the last date of submission of the tender for execution of Contract. However, the quoted rates should be valid for the initial/ extended period of the Contract from the effective date of the Contract. No request will be considered for price revision during the original Contract period.
- b. A bid valid for a shorter period shall be declared as non-responsive.
- c. In exceptional circumstances, prior to expiry of the original time limit, the IIT may request the bidders to extend the period of validity for a specified additional period beyond the original validity of 120 days. The request and the bidders' responses shall be made in writing. The bidders, not agreeing for such extensions will be allowed to withdraw their bids without forfeiture of their Bid Security.

7. Modification / Substitution/ Withdrawal of bids:

- a. No Bid shall be modified, substituted or withdrawn by the Bidder after the Bid's due Date.
- b. Any alteration/ modification in the Bid or additional information supplied subsequent to the Bid's due Date, unless the same has been expressly sought for by the Authority, shall be disregarded.

8. Rejection of the Bid:

The bid submitted shall become invalid and tender fee shall not be refunded if: -

- a. The bidder is found ineligible.
- b. The bidder does not upload all the documents as stipulated in the bid document.

9. Selection Criteria:

Phase-I: Technical Evaluation & Sample Approval

Technical evaluation will be done based on information given by technical bid submitted by the bidders. Bid containing partial, incomplete, uncleared and superfluous and unwanted information will be summarily rejected.

Technical declaration must be supported with relevant document. Discrepancy in relevant supporting document and technical compliance sheet shall lead to rejection of technical bids.

Sample Approval:

Bidders should have to display their samples (if asked) on - at the Central Store & Purchase Section of IIT Kanpur. Non-display of sample shall be considered as non-responsive technical bids.

Phase-II

1. Financial bids of technically qualified and approve samples bidders shall be opened.
2. Financial evaluation is purely done on the total financial implication.
3. Any superfluous, unreasonable assets rate quotes will be summarily rejected.

Late Delivery:

Delivery must be completed within the period mentioned in tender document from the date of receipt of the order. Penalty @ 1% per week or part thereof subject to a maximum of 10% of the delivery price will be deducted from the balance payment if supply is not completed within stipulated period.

INDIAN INSTITUTE OF TECHNOLOGY, KANPUR

Tender Notice

E-tender /Online bids are invited for reputed firms from eligible bidders for the work of **“Purchase of Fume Hoods and Lab Furniture”**.

The Demand draft for Rs. 45,000/- towards Bid Security/ EMD in favour of **Registrar IIT Kanpur** must reach **Old SAC Block-A Room No.6, IIT Kanpur-208016** latest by 12:00 PM on the bid opening day i.e. **04.08.2020**

Please note all bid related documents scanned copy is to be submitted on the online portal, only Demand draft has to physical reach the aforementioned address.

The tender document along with other details may be downloaded from the CPP Portal: <http://eprocure.gov.in/eprocure/app>

IIT Kanpur reserves the right to accept or reject any or all the tenders without assigning any reasons thereof.

Sd/-
Assistant Registrar

Tender document

Department of Chemistry
Indian Institute of Technology Kanpur
Kanpur (UP) 208016 India

Enquiry date: 13.07.2020

Enquiry No: **IITK/CHM/SD/2020/01**

Online quotations are invited for the purchase of **Fume Hoods and Lab Furniture**

Specifications for Fume Hoods and Lab Furniture:

A) SEFA-8 standards Heavy Duty Under Cabinets & Drawers: SEFA-8 standards Heavy Duty Under Module, comprising of one drawer, one cabinet with shutter and adjustable height shelf. Cabinet shutter will be in double skin construction and shall be provided with heavy duty, knuckle and barrel type SS hinges and positive catch arrangement. The under module shall be fabricated out of heavy gauge special grade Galvanized Iron sheet in weldless construction and shall be finished with pure epoxy coating for extra ordinary corrosion resistance.

B) Electrical Trunk Box - G.I construction; duly powder coated

C) Electrical Sockets - Legrand or Equivalent make

Technical specifications

1. Low Constant Volume (LCV) type Bench Fume Hood (Size: L 1200 x D 915 x H 2300 mm) (For AC Lab)

Qty. 3 Nos

Consisting of following: (See in design and construction detail) Fume Hood Superstructure
Fume Hood Worktop Service Valves Electrical Fittings Controls Fume Hood Under
Structure Fume Hood Under-Cabinet (Chemical Storage Purpose) Accessories

2. Low Constant Volume (LCV) type Bench Fume Hood (Size: L 1500 x D 915 x H 2300 mm) (For AC Lab)

Qty. 1 Nos

Consisting of following: (See in design and construction detail) Fume Hood Superstructure
Fume Hood Worktop Service Valves Electrical Fittings Controls Fume Hood
Understructure Fume Hood Under-Cabinet (Chemical Storage Purpose) Accessories

3. Exhaust Fan (400 mm Dia) - one fan for 3 Nos. 1200 mm wide Fume Hood & 1 Nos. 1500 mm wide Fume Hood

Qty. 1 Nos

- Single piece molded UV treated chemical resistant SISW direct driven centrifugal fan in PP construction with suitable stand in MS powder coated construction, CFM 1720 to

1820 - Corrosive resistant PP Impeller with extra strength, high efficiency, properties which produces lower noise and power consumption. - Drive - 5 HP, 2800 RPM, 415V, 50Hz., TEFC Class B insulation induction motor with IP55 enclosure, in Non- FLP const. - 16A, 3Ph MCB for Fan - Legrand or eq. Make - Electrical Panel with necessary internals and VFD for fan.

4. **Wall Bench (WB - 1 & 2) Size: L 5000 mm x W 610 mm x H 900 mm Qty. 2 Nos**
 - 750 mm wide storage module with one drawer two shutters Movable Cabinet 6.00 Nos.
 - 450 mm wide storage module with one drawer one shutter Movable Cabinet 1.00 Nos.
 - Single sided (two step) double tier reagent rack with electrical raceway 5.00 Rmt.
 - 6/16 Amp electrical sockets and 16 Amp one-way switch 18 Nos

5. **ISLAND Bench (IB - 1) Size: L 5000 mm x W 1400 mm x H 900 mm Qty. 1 Nos**
 - 750 mm wide storage module with one drawer two shutters Movable Cabinet 12.00 Nos.
 - 450 mm wide storage module with one drawer one shutter Movable Cabinet 2.00 Nos.
 - Double sided double tier reagent rack with electrical raceway 5.00 Rmt.
 - 6/16 Amp electrical sockets and 16 Amp one-way switch 36 No.s

6. **Laboratory Bar Stool Qty. 10 Nos**

Movable bar stool, flexible with cushion in seat and hydraulic height adjustment

7. **Wall Bench (WB - 3) Size: L 2090 mm x W 600 mm x H 750 mm Qty. 1 Nos**
 - Work top in 18 ± 1 mm thick Black Granite construction 1.25 Sqm.
 - 500 mm wide storage module with one drawer one shutter 1.00 Nos.
 - 350 mm wide storage module with one drawer one shutter 1.00 Nos.
 - Leg space with KBT, CPU Trolley and Cable Manager 2.00 Nos.
 - Worktop mounted electrical raceway in GI powder coated construction 2.09 Rmt.
 - 6/16 Amp electrical sockets and 16 Amp one-way switch 8.00 Nos.
 - Data Socket 2.00 Nos.
 - Vertical support for leg space 1.00 Nos.
 - Filler Panel in G.I. Construction 2.00 Nos

8. **Wall Mounted Storage Cabinet Size: L 750 mm x W 400 mm x H 600 mm Qty. 4 Nos**
 - Wall mounted cabinets in G.I. construction with epoxy powder coated one no. adjustable self with double skin Glass doors and Locks

9. **Anti-Vibration Table (AVT) Size: L 1000 x W 750 x H 900 mm Qty. 1 Nos**

Fabricated out of 1.2 mm thk Galvanized Iron sheet
 Structure in 50 x 50 x 2 mm thk hollow pipe const. with epoxy powder coated
 Work top in 80 ± 1 mm thick Black Granite construction

10. **Storage Cabinet Size: L 1200 X D 500 X H 1990 mm**
 - Storage cabinet for Acid, Chemicals and Bases
 - Tall cabinet 2 doors, 3 shelves adjustable with racks and bottom basin, fan and filter

Note - Not flammable (without Fire Rating) - Not recommended for Solvent Storage

11. Laboratory Bar Stool

Qty. 5 Nos

Push Back, Bravo PP fixed arms, PP Base, gas lift, 'Seat - PU mould, Back mesh Back.

SPECIFICATION OF LABORATORY FURNITURE & ACCESORIES

- ❖ The entire laboratory furniture should be tested as per **SEFA-8M standards** in SEFA approved labs with latest **2016 Guidelines** published by SEFA.
- ❖ The laboratory furniture should be modular construction & design made of mainly Skin Passed / Zero Spangle G.I. (Galvanized Iron) duly coated with at least 50-60 micron Epoxy Powder coated in panel form and in CKD (Completely Knocked Down) construction so it can be erected at site as per attached layout. The design should have provision for reconfiguration for change in layout using simple tooling and should provide independent access to the utilities installed, electrical panel & instrumentation panel.
- ❖ All GI sheet components (Such as TATA Steel / SAIL / Jindal Make) should be fabricated by precision shearing, levelling, notching, piercing, machines to achieve consolidated dimensions within close tolerances under the strict quality checks and assembled with the aid of fixtures. Exposed welding marks should be polished smooth to improve aesthetic. Corner intersections of vertical and horizontal members should be in the same plane with bolted joints and should be suitably aligned.

Laboratory work tables shall be in Plinth mounted designs:

- A. Laboratory work tables with plinth design**, is where the worktop is mounted directly on a base of modular plinth mounted cabinets. This type of design provides flexibility in terms of easy change in the configuration of the work table in the future.

Work tables can be manufactured in 2 heights of 900 mm and 750 mm in metallic construction designed to have completely flexible modular system.

Work Table Configurations:

- Wall Benches
- Island Benches
- Peninsular Benches
- Corner Benches
- Sink Unit

❖ **Under bench modules for Laboratory work tables:**

All modules are manufactured from **IS 277 standards Zero Spangle Galvanized Iron sheets** in a **weldless construction**, to ensure excellent corrosion resistance of the base material itself/ wooden construction.

Each panel is individually powder coated with 50 to 60 micron thickness using pure epoxy powder. In addition to **SEFA-8M certification**, the coating quality and strength is ensured through 1000-hours salt spray test and other physical tests conducted for each batch.

Fabrication of all panels is carried out using CNC punching and folding machines to ensure perfect accuracy and precision which adds to the overall finish of lab furniture. All shutters and drawer fronts are provided in a double skin construction with buffers to eliminate banging sound.

Furniture modules are certified for latest **SEFA-8M standard** which is a proof of quality and rugged construction. The modules are fabricated in standard and tailor-made designs to meet customer's requirements of dimensions and configuration.

Necessary leg space can be provided between two cabinets wherever required with additional accessories like foot rest, keyboard tray, CPU trolley etc. Rear portion of the leg space will be covered with the enclosure panel.

❖ **Reagent Rack:**

Reagent racks are useful for easy access and small storage of daily use. These are available in different configurations as per requirement:

- Single sided and Double-sided reagent rack for wall benches and island benches respectively
- Single, double or three tier racks depending on storage requirement
- Reagent racks are offered mainly in two design,
In epoxy coated galvanized iron construction with PP lined shelves
OR
Special profile extruded Aluminium construction with hard anodized epoxy powder coated surface. Shelf tops are provided in 6mm phenolic resin or wire reinforced glass construction. This design offers extra ordinary chemical resistance in addition to elegant look. Shelf height shall be adjustable as per requirement.

❖ **Electrical Raceways:**

Electrical raceways are offered in triangular or rectangular box type design in 1 mm thick GI construction finished with epoxy coating. Internal wiring is carried out using reliable make copper conductors with FRLS insulation. Raceways are mounted on vertical members of reagent racks or on work surface of the table when not provided with reagent rack. Electrical Switches / Sockets - Legrand or Equivalent make.

Other electrical accessories:

- 6A/16A multi-plug sockets and switches
- 20A industrial sockets and MCBs
- Data points for network cabling
- Spark proof sockets and switches

- Other electrical accessories as required

Wall Mounted Storage Cabinet:

General Specifications:

The cabinet should be suitable for mounting on wall. The cabinet shall be fabricated out of galvanized iron sheets. Cabinet should be provided with 1 adjustable shelf. Proper design, stiffening / structural members should be provided for strength and rigidity. Front door of the cabinet shall be in twin door design having glass panel with metallic frame in galvanized iron construction. Dimension and constructional detail of the cabinet is furnished below.

No. of Shelves: - 1 fixed shelf; forming 2 compartments.

Construction Detail: -

- End Panel, Top Panel & Bottom Panel: - 1 mm thick Galvanized Iron sheet
- Rear panel: - 1 mm Galvanized Iron sheet
- Front door: - 5 mm thick glass with metallic frame in G.I.
- Shelf: - 1 mm thick G.I. sheet
- Door supporting frames: - 1.6 mm thick G.I. sheet
- Door Hinges: - Knuckle and Barrel type SS hinges
- Door Handles: - SS 304 const.
- Lock: - With two keys for doors

Anti Vibration Table:

Fabricated out of 1.2 mm thk Galvanized Iron sheet, Structure in 50 x 50 x 2 mm thk hollow pipe const. with epoxy powder coated, Work top in 80 ± 1 mm thick Black Granite construction.

SPECIFICATION OF LABORATORY FUME HOOD & ACCESORIES

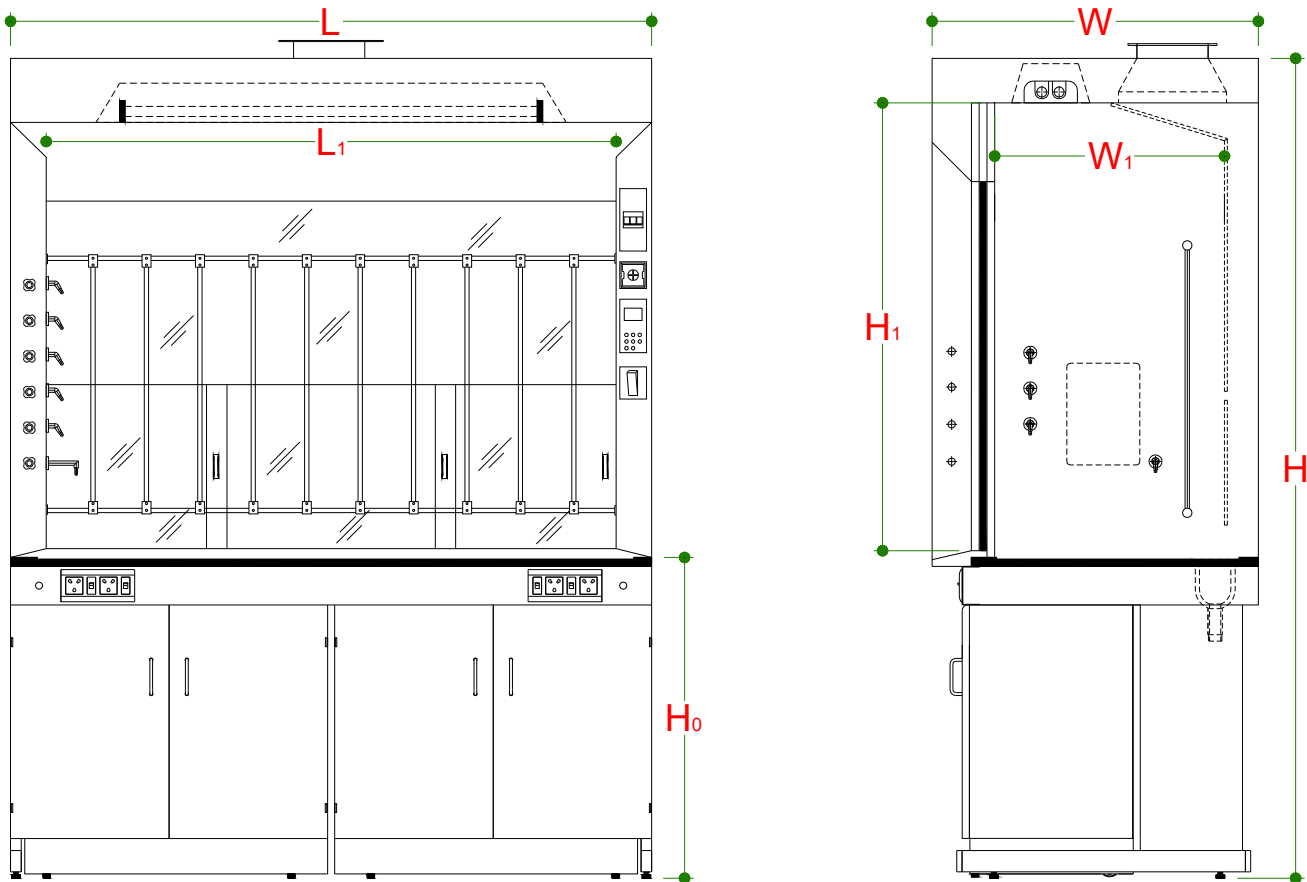
1. FUME HOOD SUPERSTRUCTURE:

A. DESIGN AND CONSTRUCTION DETAIL:

Type of Fume Hood: Low Constant Volume type Bench type Fume Hood (Suitable for A.C. Atmosphere).

Hood Construction: Structure bearing type, i.e. inner and outer panels fixed on rigid frame structure.

DIMENSIONS OF FUME HOOD.



Overall dimension			Inner dimension			Worktop height
L	W	H	L₁	W₁	H₁	H₀
1200	915	2300	1000	645	1250	900
1500	915	2300	1300	645	1250	900

Baffle Design	3-point suction, fix type baffle arrangement for effective suction of light, medium and heavy fumes. MOC of Baffle and internal lining of fume hood is SS316
Sash Arrangement	Three folded sash with heat resistant
Cup Sink	Oval Shaped, size approx. 130x80mm – 1 No. per hood
Service Valves	Panel mounted valves with colour coded as per DIN/ BS standard remote knobs fitted on front vertical post.
Valve Tubing	Flexible tubes 1.5m long provided
Front Vertical Post	Aero Dynamic Design
Air Foil	Flip on Type Design
Exhaust Outlet	Streamlined exhaust outlet with suitable size Volume Control damper
Electrical Panel Box	Provided below the fume hood in GI construction

B. MATERIAL OF CONSTRUCTION / MAKE OF COMPONENT:

Fume Hood Inner Panels & Baffles: 1.6mm thick panels made of S.S. 316 to have property of excellent chemical & heat resistance and fire retardant. These panels are in rigid construction with smooth finish and easy clean ability.

Fume Hood External Panels: Outer panels in 1.2mm thick front posts in durable, Zero Spangle / Skin Past Galvanized Iron steel from Tata, Jindal or equivalent make, finished with epoxy powder coating of at least 50-60 micron thickness applied through twin electrode method.

Fume Hood Super Structure: 2.0 mm thick Galvanized Iron (GI) powder coated construction.

Fume Hood Work Surface: 18 to 20 mm thick telephone black natural granite in standard offering with raised railing in same material on 4 sides for containment. The worktops can also be offered in Solid Epoxy/ Phenolic Resin/ Vitrified Ceramic etc. as per end user requirement on request.

Cup Sink: Oval shaped, Single piece molded polypropylene (PP) in standard offering. Solid Epoxy cup sinks can also be provided as per end user requirement on request.

Air foil: SS 316 L & in “Flip On” type in Aerodynamic design.

Scaffolding (Lattice): in vertical rod design, fabricated out of 12.0mm dia. S.S. 316 Rods, having 150mm pitch between two rods in standard offering. These can be offered in Stainless Steel as per end user requirement on request.

Fume Hood Sash: 5 mm thick toughened glass folded and combination type arrangements. Fume Hood sash works with a pulley & counter weight mechanism with SS 316, multi wire flexible sash rope.

Sash Pulleys: Nylon pulleys with ball bearings.

Service Valves: Pre piped valves having body in forged brass construction, extended spindle in Aluminum construction, colour coded knobs as per DIN/BS in plastic construction. Angular shaped serrated nozzles in epoxy coated forged brass construction with 1.5mtr. long flexible tubing with end fittings.

Lighting: Vapor proof light fitting with twin LED type light with fluorescent lamps.

Duct Collar: Molded Polypropylene (PP) construction.

Damper: Moulded Polypropylene (PP) construction suitable for motorized operation.

Fume Hood Plumbing Service Line:

For Compressed Air & Nitrogen Service: 4mm Bore Polyurethane Tube

For Vacuum Service: SS Braided Teflon Hose

For Potable Water Service: Nylon Braided PVC Hose

(Nitrogen, air, vacuum, and water connections given from right side of the fume hood)

Electrical Fittings: Legrand or Equivalent

Cables/ Wires: ICI/ Finolex/ Gloster / Anchor make or Equivalent

2. BASE CABINET:

Overall Dimension: W 1200 / 1500 mm x H875mm x D600mm.

Twin cabinets in Zero Spangled Galvanized Iron (GI) construction for apparatus storage cabinet. Cabinets are mounted on a common base frame with castor wheels. Each cabinet to have twin door in double skin construction. Each cabinet shall have one adjustable shelf & with detachable rear panels in segmented construction. Cabinet shall be provided with two numbers ports with the flexible ducts connected to the exhaust passage of the fume hood. PP Trays and FRP lining inside the cabinet for better corrosion resistance.

Material of Construction:

Cabinet Body: 1.0mm thick Galvanized Iron (GI) construction.

Cabinet Shutter: 0.8mm thick Galvanized Iron (GI) construction.

Handles: Flush type; Anodized Aluminum construction; duly powder coated.

Hinges: Heavy duty Knuckle-Barrel type special designed door hinges.

Hardware: SS 304 construction

Cabinet Finish: Inner and Outer surface of the cabinet, shelf and drawer type plate shall be coated with pure epoxy powder coating applied through twin electrode process.

3. Ducting:

Rigid Ducting of PP (Polypropylene) + FRP (Fibre Reinforced Polyester) and flexible ducting with flanges, bends, damper transitions, clamps etc. Flexible joint shall be provided in the ducting in order to avoid transmitting the blower vibrations to the hood.

4. ACCESSORIES:

Airflow Monitor: This Face Air Velocity monitor gives digital display of face velocity in m/sec or fpm with on screen display for Safe and Alarm conditions with audible alarm and LED indication. It has a feature of Push-button calibration and configuration; along with Plug-in connections for power supply and airflow sensor. It also got 3 programmable output relays, 3 configurable inputs; Com port for local or PC network connection. 3 configurable push buttons.

List of recommended make of materials for laboratory furniture & fume hood:

SR. NO.	MATERIAL	RECOMMENDED MAKE
1.	ZERO SPANGLED GALVANIZED IRON (GI) SHEET	Highly reputed Brands such as TATA STEEL / SAIL / JINDAL MAKE
2.	HINGES	Highly reputed Brands such as HETTICH / HAFELE
3.	DRAWER RAILS	Highly reputed Brands such as HETTICH / HAFELE
4.	LOCKS	Highly reputed Brands such as HETTICH / HAFELE
5.	LABORATORY FITTINGS	PREMIER POLYMERS
6.	LABORATORY SINKS / DRIP CUPS	PREMIER POLYMERS
7.	LABORATORY ELECTRICAL SOCKET	Highly reputed Brands such as NORTHWEST / LEGRAND / MK / NORISYS
8.	DATA & VOICE SOCKET	Highly reputed Brands such as NORTHWEST / LEGRAND / MK / NORISYS
9.	AIR FLOW MONITOR	Highly reputed Brands such as TEL(UK) MAKE

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Terms and Conditions:

1. All equipment must be compatible with Indian electrical standards and codes. Engineering documentation on the physical sizes and weights of all major and minor components must be submitted.
2. Vendor must provide a list of satisfied Indian users and their contact details for using offered items.
3. Vendor must be able to demonstrate & install the equipment in our laboratory.
4. Delivery period will be 5-6 weeks.
5. IIT Kanpur is fully exempted from payment of GST on Imported Goods against our DSIR certificate.
6. IIT Kanpur is partially exempted from payment of Customs Duty (We will provide Custom Duty Exemption Certificate, CD applicable is 5.5%).
7. TENDER Specific Manufacturer Authorization Form from OEM Required.
8. The Institute reserves the right of accepting or rejecting any quotations without assigning any reason thereof.

TENDER ACCEPTANCE LETTER
(To be given on Company Letter Head)

Date:

To,

Sub: Acceptance of Terms & Conditions of Tender.

Tender Reference No: _____

Name of Tender / Work: -

Dear Sir,

1. I / We have downloaded / obtained the tender document(s) for the above mentioned 'Tender/Work' from the web site(s) namely:

as per your advertisement, given in the above-mentioned website(s).

2. I / We hereby certify that I / we have read the entire terms and conditions of the tender documents from Page No. _____ to _____ (including all documents like annexure(s), schedule(s), etc .,), which form part of the contract agreement and I / we shall abide hereby by the terms / conditions / clauses contained therein.

3. The corrigendum(s) issued from time to time by your department/ organisation too have also been taken into consideration, while submitting this acceptance letter.

4. I / We hereby unconditionally accept the tender conditions of above-mentioned tender document(s) / corrigendum(s) in its totality / entirety.

5. I / We do hereby declare that our Firm has not been blacklisted/ debarred/ terminated/ banned by any Govt. Department/Public sector undertaking.

6. I / We certify that all information furnished by our Firm is true & correct and in the event that the information is found to be incorrect/untrue or found violated, then your department/ organisation shall without giving any notice or reason therefore or summarily reject the bid or terminate the contract, without prejudice to any other rights or remedy including the forfeiture of the full said earnest money deposit absolutely.

Yours Faithfully,
(Signature of the Bidder, with Official Seal)