

	सामग्री प्रबंधन अनुभाग भारतीय प्रौद्योगिकी संस्थान, रुडकी रुडकी-247667, हरिद्वार, उत्तराखण्ड, भारत Phone-(O) 01332-28-4293, 4693 E-mail: mmiitr@iitr.ac.in	Material Management Section Indian Institute of Technology Roorkee-247667(Haridwar) (Uttarakhand) (India) Phone-(O) 01332-28-4293, 4693 E-mail: mmiitr@iitr.ac.in	
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	PAN-AAALI0033R		

निविदा प्रलेख / Tender Document

No. 2025260458/MM-5/IITR/2025-26/Two-port Glove Box system/CHEMISTRY/435

Date of Uploading of Tender -<https://eprocure.gov.in/eprocure/app>

11-Dec-2025

Bids under two bid systems (Technical and Commercial) are invited Online at CPP Portal (<https://eprocure.gov.in/eprocure/app>) from the reputed manufacturer/authorized supplier/dealer for the following items. **Manual bids will not be accepted.**

वस्तु की तकनीकी विशिष्टताएँ / Technical Specifications of item:

Sr. No	Name of item / Specifications	QTY	UOM
1	Two-port Glove Box system equipped with an integrated Freezer and a Regenerable Solvent Absorption Unit	1	Set
(For Detailed Technical Specification Plz refer Annexure-V)			
नोट-1: कृपया वस्तु का मूल्य एवं कर अलग-अलग दर्शाए।			
Note-1: Please quote the Rate & Taxes of the item separately.			
Note-2: E-way bill is to be issued by the Venders/Transporter			
Note-3: The HSN / SAC Code of the item must be mentioned.			
For Reasonability of Rates, The firm must enclose the last two supply orders for the same item with Financial Bid (Annexure-III) only.			
Critical Date Sheet			
1	Published Date	11-Dec-2025	(15:00)
2	Bid Document Download / Sale Start Date	11-Dec-2025	(15:30)
3	Seek Clarification Start Date	11-Dec-2025	(16:00)
4	Seek Clarification End Date	17-Dec-2025	(15:00)
5	Pre Bid Meeting Date	Not Required	Not Required
6	Bid Submission Start Date	18-Dec-2025	(16:00)
7	Bid Submission End Date	1-Jan-2026	(15:00)
8	Bid Opening Date	1-Jan-2026	(15:30)

Chapter-1 : Instruction to bidders

- A. The Tender should be enclosed with proper certifications like Agency Certification, Authorization certificate and/or Proprietary Certificate, as the case may be, in support of your offer.
- B. बोली का जमा किया जाना / **Submission of Bids:**
The bids should be submitted online in two parts –
 - 1 (i) **The Technical Bid (Annexure-I, II, IV & V) and Tender Acceptance Letter**
(ii) **The Financial Bid (Annexure-III) & Price Bid in .XLS Format**
Rates in .xls format will only be considered for Financial evaluation & further processing.
 - 2 The bids should be on official pad preferably with GST Number of the firm

- 3 The quotations should bear full details and where possible may be duly supported with catalogues, pamphlets, literature, samples of the item/items as the case may be for comparing the quality and rates of the item(s).
- 4 The transportation cost, insurance charge etc., if any, percentage/ rate of GST or all other taxes and duties should be clearly mentioned.
- 5 The bids / rates / tenders should remain valid for a minimum period of 90 days from the date of financial opening.
- 6 The rates shall not be subject to escalation of any nature.
- 7 The rates quoted should be applicable to educational institutions and any cost advantage received in lieu thereof should be passed on the Institution.
- 8 While quoting / sending rates, the firm shall give an undertaking as per Annexure-II.

C. विधि निक्षेप/ Earnest Money Deposit (EMD): **NA**

D. निष्ठादन बैंक प्रत्याभूति/ Performance Bank Guarantee (PBG): **NA**

E. बोलियों का खोला जाना/ Opening of Bids:

- 1 The Technical Bids will be opened online at CPPP Portal (<https://eprocure.gov.in/eprocure/app>)-**Plz refer Critical Date Sheet**
- 2 The Financial bids of only the Technically Qualified bidders will be opened. The date and time for opening the Financial Bid will be communicated to the respective firm later by the system (CPP Portal (<https://eprocure.gov.in/eprocure/app>))
- 3 Representatives of the firms(s) may be present at the time of openings, if they so desire.

Chapter-2 : Conditions of Contract

- F. ठेका देना/ Award of Contract:**
The final selection of the bidder for the award of the contract will be made on the basis of the lowest commercial bid amongst the Technically Qualified Bidders.
- Prices of optional item will not be considered to identify lowest price bid.**
- G. पूर्व-आपूर्ति निरीक्षण/ Pre-supply Inspection:**
Authorized representative of the Institute shall make the final inspection before supply of the item at site of the firm, if required.
- H. वस्तु की आपूर्ति/ Supply of Item:**
The whole supply as per order shall have to be completed within the time mentioned in the order failing which the I.I.T. Roorkee shall have the right to accept or reject any quantity of items ordered. The firm will have to arrange for supply of the material in good condition.
- I. भुगतान की शर्तें/ Payment Terms:**
- A. Payment in INR for supply of goods:**
Where installation is not required: 100% payment will be made after satisfactory delivery of material duly certified by the HOD/P.I. **OR**
Where Installation is required :100% payment will be made after satisfactory delivery and installation of the material duly certified by the HOD/P.I. **OR**
Upto 80% payment on receipt and acceptance of goods/service by the indenter and the balance on successful installation and commissioning by the supplier and acceptance by the indenter.
- B. Payment in INR for AMC/Service:**
Quarterly/Halfyearly after satisfactory completion of work/service duly certified by the H.O.D./P.I.
- J. दंड/Penalty:**
A penalty of 0.5% of the total order value per week shall be levied for the delay subject to a maximum of 5% of the total order value.
In case of the non-supply of the item/service after the acceptance of the work/supply order, EMD & PBG (if submitted) will be forfeited by the Institute. Also, the firm will be debarred from any future bidding process of IIT Roorkee for a period of a minimum two year.
- K. अप्रत्याशित घटना/Force Majeure:**
For the purpose of and within the scope of contract by way of indication and not of limitation, the term "Force Majeure" shall mean acts of nature, strikes, Lockouts, or other industrial disturbances, act of public/enemy, wars, blockades, insurrection, riots, epidemics, landslides, earthquakes, storms lightening, flood, washouts, civil disturbances, explosion and any other similar even not within the control of either party on which by exercise of due care and diligence neither party is able to prevent or overcome.
- L. मध्यस्थता/ Arbitration:**

If any dispute which may arise with respect to any term and condition or with respect to the interpretation of any term and condition of the Purchase Order/Work Order, which may be issued to the qualified and successful tenderer subsequently, the same shall be settled strictly in accordance with and in compliance of the Arbitration procedure which is mentioned descriptively in the Purchase Order/ Work Order.

M. बोली अस्वीकृती के लिए मानदंड / Criteria for bid rejection:

- 1 If technical bid found without the required undertaking (Annexure-II), EMD & Self Certificate (Annexure-IV)
- 2 If it found at a later date that any information given in the bids is Incorrect/false then the bid is liable to be disqualified/rejected.
- 3 Canvassing in any form will result to disqualification.
- 4 If "extra, as actual" etc. are mentioned against any of the price components in the bid the bid will be rejected.
- 5 If the firm quotes 'NIL' charges / consideration, the bid shall be treated as unresponsive and will not be considered.
- 6 If financial bid is found along with technical bid in pdf on CPP Portal, then the bid shall be rejected outrightly.
- 7 If any bidder submitting two/multiple bids for the same item of a tender, both/all the bids of that bidder will be outrightly rejected.

Chapter-3 : Schedules of requirements

N. टिप्पणी / Note:

- 1 If the supplier/firm is manufacturer/authorized dealer/sole distributor/of the item, the certificate to this effect should be attached.
- 2 Please note that the firms must submit the compliance Statement in an organized and structured manner in respect of all the specifications as per Annexure-V with the supporting catalogue/leaflet of the firm. Annexure-I, II, & IV have to be submitted with Technical Bid and Annexure-III with financial bid.
- 3 It may also be noted that the tender bids received after the stipulated date & time or found incomplete and the tender bids containing false/incorrect information shall be summarily rejected. The Institute shall not entertain any communication in this regard, whatsoever.
- 4 The firm is required to give its Bank Account details with IFSC for the purpose of making e-payment.
- 5 The Indian Institute of Technology (IIT) Roorkee reserves the right to reject any quotation wholly or partly without assigning any reason.
- 6 The quantity shown in the tender can be increased or decreased to any extent depending upon the actual requirement.
- 7 The decision of the institute in all matters relating to eligibility, acceptance, rejection of the bid will be final and binding on the applicants.
- 8 IIT Roorkee discourages High Sea Sale purchase. All tenders with High Sea Sale will be rejected.
- 9 The firms should clearly mention (in the financial bid) the Harmonized System of Classification (HS code) defined by the Central Custom and Excise Board (Govt. of India)- for the item(s) involving import.
- 10 **If the bid opening date happens to be a holiday, then the bid will be opened at 3.30PM of the next working day followed by the holiday.**
- 11 If an agent submits bid on behalf of the Principal/OEM, the same agent can not submit a bid on behalf of another Principal/OEM in the same tender for the same item/product.
- 12 Indian Agent should submit the certificate from the Foreign Principal that they are the Authorized & Registered Indian Agent.
- 13 The quantity shown against the item is approximate and may vary as per demand of the Institute at the time of placing order. Also, the final requirement of each line item will be decided by the Institute at the time of placing the PO.
- 14 **Any corrigendum/addendum/errata in respect of the Tender Notice/ Enquiry letter shall be made available CPP Portal (<https://eprocure.gov.in/eprocure/app>). Hence prospective bidders are advised to visit the CPP Portal (<https://eprocure.gov.in/eprocure/app>) regularly.**
- 15 Bidders shall be responsible for the correctness of the information provided in the enquiry letter/tender document. If it is found at a later date that any information given in the bid is Incorrect/false then the bid is liable to be disqualified/rejected.
- 16 Before submission of bids, bidders should read the complete enquiry letter/tender document carefully and ensure that the bidders fulfill the eligibility criteria.
- 17 In case the item/product is under rate contract with DGS&D or GeM, then Bidder should certify that the rate quoted is not over and above (higher side) the rates under RC with the DGS&D or GeM.
- 18 **In Item Wise BoQ .xls sheet, In column M, leave blank for the item/service not provided/quoted by you. If quoted 0 then it will be considered that the item/service will be provided free of cost.**

Or

- In Item Rate BoQ .xls sheet, If quoted 0 for the items/services in column M then it will be considered that the items/services will be provided free of cost.
- 19 The bidder must quote the applicable GST appropriately in the price bid format provided i.e BoQ in .xls format. In case column of GST left blank, quoted 0, or inappropriate, then total quoted amount shows in column BB would be final inclusive of GST & other charges. The difference in GST amount payable – if any will be borne by the bidder. In this case, the basic unit prices will be suitably adjusted by the bidder – if required.
- 20 Only 'Class-I local supplier' and 'Class-II local supplier', as defined in the Public Procurement (Preference to Make in India), Order 2017 shall be eligible to bid in tender. For more details please refer: Order No.: P-45021/2/2017-PP (BE-II), DPIIT, Ministry of Commerce and Industry issued Dated: 16th Sept. 2020.
- 21 Self-certificate has to be provided in this regard that the item offered meets the local content requirement for 'Class-I local supplier' & 'Class-II local supplier'. (As per annexure-IV)
- The Institute reserves the right to rectify any discrepancy of this advertisement, if found later on. In case of any inadvertent mistake in the process which may be detected at any stage even after the issue of purchase order, the Institute reserves the right to modify/withdraw/cancel any communication made to the bidder.

Chapter-4 : Specifications and allied Technical details

Plz. See Annexure- I, II, IV, V

Chapter-5 : Price Schedule (to be utilized by the bidders for quoting their prices online in .XLS format at CPPP Portal (<https://eprocure.gov.in/eprocure/app>))

Plz. See Annexure- III & Price Bid in .XLS Format

Chapter-6 : Contract Form

Purchase Order is used as Contract Form

Chapter-7 : Other Standard Forms, if any to be utilized by the purchaser and bidders

Tender Acceptance Letter

*उप कुलसचिव (सामग्री प्रबंधन)
Deputy Registrar (MM)

***Document Digitally Signed on <https://eprocure.gov.in/eprocure/app>**

For any Clarification regarding technical specifications of item Please Contact:

**Prof. Akash Kaithal
Department of Chemistry
IIT Roorkee**

**Department of
Chemistry
IIT Roorkee**

**Ph.-01332-28-5699
Email: akash.kaithal@cy.iitr.ac.in**

तकनीकी बोली

विस्तृत विवरण अनुपालन रिपोर्ट के साथ प्रस्तुत किया जाना है (अपने आधिकारिक लेटर हेड पर विक्रेता/फर्म द्वारा प्रस्तुत करने के लिए)

Detailed specification cum compliance report to be submitted with the Technical Bid
(to be submitted by the vendor/firm on its official letter head)

(For Detailed Technical Specification Plz refer Annexure-V)

Sr.No	Name & Required Specifications of Item(s)	Qty	UOM	Offered specifications of item(s) by the firm
1	Two-port Glove Box system equipped with an integrated Freezer and a Regenerable Solvent Absorption Unit	1	Set	
	Firm's Profile :			
1	Manufacturer/Authorized Agent/Distributor/Dealer/Supplier(valid certificate must be attached)			
2	E-mail I.D. & Telephone/Mobile No. Detail of Bank A/C			
Note:	1. "offered specifications", should be filled up properly in the format provided as per Annexure-I.			
	2. Volume & Weight of the item should also be mentioned.			
	3. The HSN / SAC Code of the item must be mentioned.			

Signature: _____

Name : _____

Designation : _____

Seal of the Organisation

उपबंध / UNDERTAKING

Ref. No. No. 2025260458/MM-5/IITR/2025-26/Two-port Glove Box system/CHEMISTRY/435
Dated:- 11-Dec-25

I/We hereby certify that we or Our OEM are not from such a country which shares a land border with India or, if from such a country, We are registered with the Competent Authority. [Where applicable, evidence of valid registration by the Competent Authority is attached.]" (For details Please refer Order No.: F.No. 6/18/2019-PPD Dt.: 23rd July 2020)

Link of Order: [http://mm.iitr.ac.in/mmweb/public/forms/63374_GFR%20Rule%20144%20\(xi\).pdf](http://mm.iitr.ac.in/mmweb/public/forms/63374_GFR%20Rule%20144%20(xi).pdf)

That all the terms/conditions mentioned in the enquiry letter/tender against which the rates are being given are acceptable to the firm.

It is certified that the rate quoted is not over and above (higher side) the rates under RC with the DGS&D or GeM.

It is certified that the firm has never been black-listed from any Government Department. (State/Central Govt./ Autonomous/ PSU) in the last three years.

Signature_____

Name_____

Designation_____

Seal of the Firm/Agency

Financial Bid

(to be submitted by the vendor/firm on its official letter head)

Ref. No. No. 2025260458/MM-5/IITR/2025-26/Two-port Glove Box system/CHEMISTRY/435
 Date: 11-Dec-25

Rates :

Sr. No	Name of item / Specifications	Qty	UOM	Rate	Amount (INR Only)
1	Two-port Glove Box system equipped with an integrated Freezer and a Regenerable Solvent Absorption Unit	1	Set	To be filled in .XLS sheet (attached)	
Total					
Grand Total Rs.					

1) Price of the items should be clearly mentioned if supplied Free of Cost.

Terms & Conditions:

- 1 Prices (quoted in Rs.): FOR Department of Chemistry
IIT Roorkee
- 2 **Payment:** **Should be clearly mentioned, As per clause-I of tender document.**
- 3 Validity:
- 4 Delivery period:
- 5 Other charges:
- 6 **Warranty:**
- 7 Rejection: Equipment if found not as per the required specification would be rejected.
- 8 Penalty Clause: As per clause-J of tender document.
In case of the non-supply of the item/service after the acceptance of the work/supply order, EMD & PBG (if submitted) will be forfeited by the Institute. Also, the firm will be debarred from any future bidding process of IIT Roorkee for a period of a minimum two year.

It is certified that the rate quoted is not over and above (higher side) the rates under RC with the DGS&D or GeM.

Signature _____
 Name _____
 Designation _____
 Seal of the Firm/Organization _____

Details of Institute :

IEC CODE	0100000011	
AD CODE	0001069-2770325	S.B.I., IIT ROORKEE
	0303974-2770324	P.N.B. IIT ROORKEE

(to be submitted by the vendor/firm on its official letter head)

Self-Certificate for Local Content

Tender No.: No. 2025260458/MM-5/IITR/2025-26/Two-port Glove Box system/CHEMISTRY/435

Date: 11-Dec-25

We hereby certify that the items quoted by us against above mentioned tender no. has the local content as per below:

Local Content (in %):.....

Local Supplier Class:.....

The details of the Make in India items/parts used in the quoted products is/are as under:

- 1
- 2
- 3

The details of the location(s) at which the local value addition made/manufactured is/are as under:

- 1
- 2
- 3

We also understand, false declarations will be in breach of the code of integrity under rule 175(1)(i)(h) of the General Financial Rules for which a bidder or its successors can be debarred for up to two years as per Rule 151(iii) of the General Financial Rules along with such other actions as may be permissible under law.

Signature:

Name:

Designation:

Seal of the Firm/Organization:

Instructions for Online Bid Submission

Instructions to the Bidders to submit the bids online through the Central Public Procurement Portal for e-Procurement at <https://eprocure.gov.in/eprocure/app>. Also, any modification on CPP portal in reference to below will be applicable. Therefore, for more details and update please refer CPP Portal (<https://eprocure.gov.in/eprocure/app>).

- 1 Possession of valid Digital Signature Certificate (DSC) and enrollment/registration of the contractors/bidders on the e-Procurement/e-tender portal are prerequisite for etendering.
- 2 Bidder should register for the enrollment in the e-Procurement site using the "Online Bidder Enrollment" option available on the home page. Portal enrollment is generally free of charge. During enrollment/registration, the bidders should provide only valid and true information including valid email id. All the correspondence shall be made directly with the contractors/bidders through email id as registered.
- 3 Bidder need to login to the site through their user ID/ password chosen during enrollment/registration.
- 4 Then the Digital Signature Certificate (Class III Certificates with signing key usage) issued by SIFY/nCode/eMudra etc. recognized by Controller of Certifying Authorities (CCA) India on eToken/SmartCard, should be registered.
- 5 The registered DSC only should be used by the bidder in the transactions and should ensure safety of the same.
- 6 Contractor/Bidder may go through the tenders published on the site and download the tender documents/ schedules for the tenders.
- 7 After downloading/getting the tender document/schedules, the Bidder should go through them carefully and then submit the documents as required, otherwise bid will be rejected.
- 8 Any clarifications may be sought online through the tender site, through the contact details or during pre-bid meeting if any. Bidder should take into account the corrigendum if any published before submitting the bids online.
- 9 Bidder may log in to the site through the secured login by the user id/ password chosen during enrolment/registration and then by submitting the password of the e-Token/Smartcard to access DSC.
- 10 Bidder may select the tender in which he/she is interested in by using the search option and then move it to the 'my tenders' folder.
- 11 From my tender folder, he may select the tender to view all the details uploaded there.
- 12 It shall be deemed that the bidder has read and understood all the terms and conditions before submitting the offer. Bidder should go through the tender schedules carefully and upload the documents as asked; otherwise, the incomplete bid shall stand rejected.
- 13 Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document/ schedule and ordinarily it shall be in PDF/xls/rar/jpg/dwf formats. If there is more than one document, all may be clubbed together and provided in the requested format. Bidders Bid documents may be scanned with 100 dpi with black and white option. It is advisable that each document to be uploaded through online for the tenders should be less than 2 MB. If any document is more than 2MB, it can be reduced through zip/rar and the same if permitted may be uploaded. The file size being less than 1 MB the transaction uploading time will be very fast.
- 14 The Bidders can update well in advance, the documents such as certificates, annual report details etc., under "My Space option" and these can be selected as per tender requirements and then send along with bid documents during bid submission. This will facilitate the bid submission process faster by reducing upload time of bids.
- 15 Bidder should submit the Tender Fee/ EMD as specified in the tender. Scanned copy of the same should be uploaded as part of the offer. (if applicable)
- 16 While submitting the bids online, the bidder shall read the terms and conditions and may accept the same to proceed further to submit the bid packets.
- 17 The bidder has to select the payment option as offline to pay the Tender FEE/ EMD as applicable and enter details of the same. (if applicable)
- 18 The details of the DD/any other accepted instrument, physically delivered, should tally with the details available in the scanned copy and the data entered during bid submission time, otherwise submitted bid shall not be acceptable or liable for rejection. (If applicable)
- 19 The bidder has to digitally sign and upload the required bid documents one by one as indicated. Every act of using DSC for downloading the bids and uploading their offers shall be deemed to be a confirmation that they have read, understood and agreed with all clauses of the bid document including General conditions of contract without any exception.

- 20 The bidder has to upload the relevant files required as indicated in the cover content. In case of any irrelevant files, the bid may be rejected.
- 21 If the price bid format is provided in a spread sheet file like BoQ_XXXX.xls, the rates offered should be entered in the allotted space only and uploaded after filling the relevant columns. The Priced-bid/BOQ template shall not be modified / replaced by the bidder; else the bid submitted is liable to be rejected for the tender.
- 22 The bidders are advised to submit the bids through online e-tendering system to the Tender Inviting Authority (TIA) well before the bid submission due date and time (as per Server System Clock). The TIA shall not be held responsible for any delay or the difficulties faced during the submission of bids online by the bidders.
- 23 After the bid submission (i.e. after Clicking "Freeze Bid Submission" in the portal), the acknowledgement number indicated by the system should be printed by the bidder and kept as a record of evidence for online submission of bid for the particular tender and also be used as entry pass to participate in the bid opening.
- 24 The time settings fixed in the server side and displayed at the top of the tender site, shall remain valid for all actions of requesting, bid submission, bid opening etc., in the e- Tender system. The bidders should follow such time during bid submission.
- 25 All the data being entered by the bidders would be encrypted using Public Key Infrastructure (PKI) encryption techniques to ensure the secrecy of the data. The data entered is not retrievable by unauthorized persons during the bid submission and until the time of bid opening by any person.
- 26 Any bid document that is uploaded to the server is subjected to symmetric encryption using a system generated symmetric key. Further this key is subjected to asymmetric encryption using buyers/bid openers' public keys. Overall, the uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- 27 The confidentiality of the bids is maintained with the use of Secured Socket Layer (SSL) 128 bit encryption technology. Data storage encryption of sensitive fields is done.
- 28 The bidder should logout of the tendering system using the normal logout option available at the top right hand corner and not by selecting the (X) exit option in the browser.
- 29 For any queries regarding e-Tendering process, the bidders may contact at address as provided in the tender document. Parallely for any further queries, the bidders are advised to contact over phone: **0120-4001005** or send an e-mail to – cppp-nic@nic.in.

Prequalification

- 1 An undertaking by the firm that it has never been black-listed in the last three years must be attached along with the Bid, failing which the Bid shall be rejected. (As per Annexure-II)
- 2 True copy of Permanent Account Number.
- 3 Details of GST along with a copy of certificate to be attached.
- 4 Submission of samples if required, for all items indicated in the NIT. The make of items proposed to be supplied should be indicated and submitted along with the techno commercial unpriced bid without indicating the pricing components.
- 5 Willingness to execute all orders which are placed to meet emergency requirement on priority basis. The Bidder shall note that standards for workmanship, material and equipment, and references to brand names designated by the Purchaser in the tender document are intended to be descriptive only and not restrictive. The Bidder may substitute alternative standards, brand names and/or catalogue numbers in his bid, provided that it demonstrates to the Purchaser's satisfaction that the substitutions ensure substantial equivalence to those designated in the Technical Specifications.

Tender Acceptance Letter
(To be given on Company Letter Head)

Date:

Sub: Acceptance of Terms & Conditions of Tender.

Tender No. 2025260458/MM-5/IITR/2025-26/Two-port Glove Box system/CHEMISTRY/435

Tender description:

Dear Sir,

- 1 I/We have downloaded/ obtained the tender document(s) for the above mentioned 'Tender No.' 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 section(s), schedules(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 In case any provisions of this tender are found violated, then your department/organisation shall without prejudice to any other right or remedy be at liberty to reject this tender/bid including the forfeiture of the full said earnest money deposit absolutely.

Yours Faithfully,

(Signature of the Bidder, with Official Seal)

Two-port Glove Box system equipped with an integrated Freezer and a Regenerable Solvent Absorption Unit

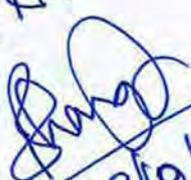
The automated inert gas workstation shall be of modular design and integrated with a gas purification system to provide a moisture- and oxygen-free inert environment (i.e., $O_2 < 1$ ppm and $H_2O < 1$ ppm).

1. Design & Construction

- a) The working space of each glove box should be at least 890 mm in height, 1200 mm in length and 760 mm in depth.
- b) The window materials should be impact-resistant polycarbonate that is at least 10 mm thick. The window should have additional hard coating for chemical and scratch resistance. Data sheet should be attached.
- c) Main body must be SS304 or SS316 brushed stainless steel, at least 2.5 mm thick.
- d) The trays, rails, flow piping and other components in the ante-chambers should also be of 304 grade or 316 grade corrosion/chemical resistant grades of brushed stainless steel.
- e) The external should either be powder coated (RAL 9003) or Spray paint finish.
- f) The system should have empty space underneath the glove box which is desired for leg space and other uses.
- g) Need a modular system that can be expanded further. The side-panels must be removable to accommodate future expansions.
- h) Glove Ports: Delrin (POM) Natural white/PP.
- i) Leak tightness of Glovebox should be Class I according to standard ISO 10648-2 (Oxygen method), Leakage rate: $< 5 \times 10^{-5}$ /h (0.05 vol %/h).
- j) Power Supply to Glovebox: 220-230 V AC (single Phase, 50 Hz).
- k) There must be a light inside, preferably LED. There must be a switch on the outside of the body or touchscreen to turn the light on/off.
- l) At least three height-adjustable stainless-steel (SS 304 or SS 316) shelves of at least 1000 mm in length and at least 200 mm in depth should be provided. These should be centrally located so that any chemicals or tools are accessible from glove ports.
- m) A foot pedal for controlling box pressure should be provided.

2. Programmatic Logic Control

- a) Glove box should be controllable with independent and fully integrated Siemens (or equivalent quality) programmatic logic control (PLC), with a touch panel interface.
- b) The touch panel interface should serve as a central control unit for all glove box functions and procedures.
- c) All glove box functions should be accessible via the touch panel.

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- d) Graphical display of the box pressure, O₂ and moisture levels should be available in the touch panel interface.
- e) Automatic Box purge should be possible via PLC.
- f) PLC should trigger an automatic box purge either due to high O₂ or moisture or both in the glove box or an automatic timer option to trigger box purge at a pre-set time for a pre-set duration.
- g) Touch panel implementations showing this should be provided. A copy of relevant documentation from the user manual should also be provided.
- h) Gas (argon or nitrogen) flow rate of 200 liter/min or greater during purging should be possible.
- i) The O₂ and moisture trigger set-point range for automatic box purging should be between 10-999 ppm. Touch panel implementations showing this should be provided. A copy of relevant documentation from the user manual should also be provided.

3. Purifier

- a) Single Column Gas purification system 7-inch Siemens (or equivalent quality) touch screen HMI, remote and graphical PLC controller with Auto-regeneration.
- b) Glove box should have at least one independent purifier capable of purifying the glove box ambient to attain a purity of <1 ppm H₂O and O₂.
- c) The removable capacity should be a minimum of 41 liters for oxygen and at least 1400 grams for moisture. Specification sheets or data sheets attesting to this must be provided.
- d) The purifier should be fully regenerable with an automatic/programmed control using forming gas (10% H₂ or lower) or Ar or N₂.
- e) The gas circulation blower should be capable of a circulation rate of at least 100 m³/hour. It should work without chiller or any heat exchanger. The maximum and minimum circulation rates of the blower should be provided. Provide relevant document proof for the same.
- f) The blower speed should be dynamically controlled via program logic based on the moisture and oxygen content in the glove box, to make the blower operation power efficient. Implementation diagrams or specifications that prove this is possible must be provided.
- g) The purifier loop must have at least two H14 dust filters (HEPA or ULPA filters) -- one for filtering inlet gas (nitrogen or argon) and one for filtering the box ambient before it goes out to the gas circulation system.
- h) Eco Mode Operation.
- i) Auto purge with time sequence or ppm of O₂ and H₂O.

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4. Regenerable type Inline Solvent Absorption Unit 7 Kg

- The solvent trap should be capable of absorbing volatile organic solvents like dichloromethane, pentane, Et₂O, DMF, THF, methanol, toluene, IPA, acetone, DMSO, acetonitrile, Capacity of inline solvent trap must be 7 kg or more.
- The unit must have integrated heating facility and proper connection valves (Swagelok or equivalent) which can be attached to a vacuum pump which will be used during regeneration. The heating controls should be included in the touch panel. Supporting documents should be provided and vendor must have done installation with such system.

5. Vacuum Pump

Double stage rotary vane 21 m³/hour with Gas ballast and oil mist filter (Pump should be reputed brand like Edwards, Pfeiffer or equivalent).

- Inlet & Exhaust port with ISO-KF end fitting.
- Electrical Motor in accordance with major international Standards (UL, CSA, CE) with operating voltage of 180 to 254VAC 50/60Hz.
- Has Thermal Circuit Interrupter (Auto Shut-off when Internal Temp crosses preset limit) & Protection level of IP43.
- Leak tightness < 1x10⁻⁶ mbar ls⁻¹.
- Nominal rotational speed 15000 rpm.
- Vibration at inlet flange < 2.0 mm/s.
- Noise at ultimate vacuum 55 dB(A).

7. Freezer RHS of the Glove Box

- 30 L minimum capacity with three adjustable SS shelves (shelves should be properly spaced, slidable and removal). The freezer should be capable of reaching and retaining temperature -35 °C or lower.
- Designed for the low temperature storage of reactive materials, which need to be processed or held in a pure inert atmosphere, the glove box freezer can be dedicated systems or used in conjunction with other process operations.
- Vendor must have done minimum 5 installation of Glove Box Integrated with freezer (Supporting Document should be submitted).

8. Sensors

- A solid-state/electrochemical oxygen sensor capable of measuring oxygen levels from 0.1 ppm to 1000 ppm should be provided with box.

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- b) A solid-state moisture sensor capable of measuring moisture levels from 0.1 ppm to 3000 ppm should be provided with box. Technology requiring no maintenance with phosphoric acid or similar.

9. Box pressure

- a) Box pressure should be controllable automatically (via programmatic logic) within a pressure range of -15 to +15 mbar with use of Foot pedal pressure variation technic.
- b) Box pressure should be controllable automatically (via programmatic logic) within a pressure range of -5 to +5 mbar with use of Oil bubbler pressure variation technic.
- c) Both pressure variation and upper limit cut-off, alarm and safety cut-off should be automatically controlled and details should be visible in touch panel.
- d) Oil bubblers and Foot pedal both technologies should work and user can choose the desired technic from touch panel. Vendor should provide touch panel implementation proof and user manual proof.
- e) The desired pressure should be settable via the touch panel interface. Touch panel implementations showing this should be provided. A copy of relevant documentation from the user manual should also be provided.

10. Gloves and Glove Port Covers

- a) There should be 2 POM (polypropylene is preferred) glove ports for each box and butyl gloves should be provided for these glove ports.
- b) The size of each glove port should be at least 9" in diameter.
- c) The glove ports should be O-ring sealed against the gloves.
- d) Must include at least one glove port cover. Mounted through a single round hole in any material with a nominal thickness of 10mm, an internal pressure ring with screw fixings in combination with an integrated "O" ring seal ensures the highest levels of containment integrity are achieved with this glove port assembly.
- e) The thickness of the butyl gloves should be a minimum of 0.4 mm.

11. Automatic Large Antechamber

- a) The box must have one large antechamber for sample transfer.
- b) The antechamber should be cylindrical with a diameter of at least 400 mm and a length of at ~600 mm.
- c) The doors should preferably be with a swing-type hydraulic-assisted opening mechanism to conserve working space.
- d) There should also be a tray mounted on telescopic rails, which can be slid back and forth. The tray should facilitate transfer for tools and chemicals.
- e) The chamber must have an Automatic PLC controlled evacuate and purge system with pressure gauge. Supporting documents should be attached.

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f) Leak Rate/ Tightness: $<10^{-5}$ mbar.l.s⁻¹

12. Mini antechambers

- a) The box must have one mini antechamber for sample transfer.
- b) The antechamber should be at least 150 mm in diameter and 400 mm in length.
- c) The antechamber should have a tray mounted on telescopic rails, which can be slid back and forth.
- d) The chamber must have a manual pump and purge system: with pressure gauge, manual valve and connection to vacuum pump.
- e) The antechamber should have a door that can seal the antechamber for evacuation.
- f) Leak Rate/ Tightness: $<10^{-5}$ mbar.l.s⁻¹

13. Feedthroughs

- a) The box should have at least 4 KF-40 feedthroughs. These can be connected to liquid, electrical or vacuum feedthroughs. The details of placement can be discussed at the time of ordering.
- b) The system must have at least 1 electrical feedthrough with 15 A connector that are compatible with 220 V – 240 V supply.
- c) A feed through for solvent evaporation via connection to external vacuum pump should be provided. All the accessories for the feed through along with stainless steel shut off valves should be included. Provision and connection provided for feed through connection and charcoal regeneration with three way shut off valve. All connections should be of Swagelok or equivalent make.

14. System control

- a) Glove box should be PLC controlled with Color touch panel operation of glove box parameters with features of circulation control, pressure control, regeneration control and monitoring of pressure, oxygen and moisture. Each function should be clearly displayed on touch panel. Alarms and reminders are required for maintenance and parts. Activation at user-set timings.
- b) With upgrade facility for 24/7 remote monitoring of glove box parameters and provision for sending alerts and notifications about upcoming service schedules. Must be freely downloadable from the google play store /app store (Must provide link for the same).

15. Service, Training and Warranty

- a) The vendors must have an appropriate set-up and capability to provide after-sales service efficiently and effectively. The supplier should give training for the system that is proposed in this tender.

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- b) Installation and training should be conducted by a qualified trained engineer. This should be free of cost.
- c) Regional service engineer, preferably based in north Indian states is mandatory.
- d) Direct presence of the Service team along with contact details to be provided. Complete user list along with contact details to be provided.
- e) A declaration of Conformity certificate, and System Validation certificate must be provided.
- f) A minimum of 3 years of warranty after installation is mandatory.
- g) Three years of complete system warranty should be given for all the components. If the system requires service during the warranty period, the vendor must guarantee or replace the instrument free of cost. Vendors should have logistic support to ensure that over at least 95% of the service parts are readily available and upkeep delivery within 1 week or less.
- h) Problems occurred during the warranty period should be rectified within 2 weeks or less.
- i) If there is any delay in replacement or rectification, the warranty period should be extended accordingly.
- j) Vendors should provide a copy of the Site-Preparation checklist.

16. Terms and conditions

- a) The circulation system should make it possible to have positive pressure regulation without vacuum pump.
- b) All electrical connections should comply with line power specifications in India. Single phase voltage range is 220-240 Vac and the three-phase voltage range is 415 - 440 Vac. The line frequency is 50Hz.
- c) At least 3 order copies of equivalent model sold in the last 2 years should be provided.
- d) Satisfactory performance letters (at least 5) of the instrument from government institutes at least last 3 years needs to be submitted from the end users.
- e) Manufacturer must have sufficient (minimum 25) installations of the purified glove box instrument in India with at least 10 in IISC/IIT's/IISER's. The list of users has to be provided along with contact details of the user.
- f) The documentary proof of installation in India needs to be submitted along with all contact details of the users.
- g) Certificates required from manufacturer: ISO, CE and Class 1 Tightness Certificate of the instrument.
- h) The quote should come only from the Indian Original Equipment Manufacturer (OEM) or their authorized Indian distributor.
- i) All the technical specification must be supported by proper documentations.
- j) An extra pair of ambidextrous butyl gloves should (minimum of 0.4 mm) provided as optional accessories.

For REC

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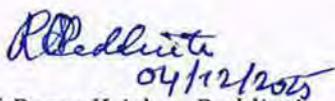
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17. Acceptance

- The IIT Roorkee reserves the right to accept or reject any bid, or to annul the bidding process and reject all bids, at any time prior to the award of the contract without thereby incurring any liability of the affected bidder or bidders.
- Previous installations can be used by the committee to disqualify vendors with a poor track record of service, build quality, system performance or poor availability of spares.
- IIT Roorkee will expect acceptance tests, post installation. These can be recorded in the presence of representatives of the OEM. Inability to pass these tests will be counted as a technical failure and breach of contract.
- Maintain <1 ppm of H₂O and O₂ for 24-hour period.
- Demonstrate automated routines for catalyst regeneration
- Demonstrate automated routines for maintaining target pressure.

Members of technical and purchase committee for the glove box purchase


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(Member, Chemistry Department)

Prof. Debasis Banerjee
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