



ಭಾ. ಕೃ. ಅನು. ಪ - ಭಾರತೀಯ ತೋಟಗಾರಿಕಾ ಸಂಶೋಧನಾ ಸಂಸ್ಥೆ  
ಹೆಸರಗಟ್ಟ ಕೆರೆ ಅಂಚೆ, ಬೆಂಗಳೂರು-560 089

भा.कृ.अनु.प.- भारतीय बागवानी अनुसंधान संस्थान

हेसरघट्टा लेक पोस्ट, बेंगलूरु - 560 089

**ICAR-Indian Institute of Horticultural Research**  
Hesaraghatta Lake Post, Bengaluru - 560 089

EPABX: 080-23086100 Extn: 218 & 217

FAX: 080-28466291 – Email: purchase.ihr@icar.gov.in



F.No.5-65/2021-22/IIHR/SP/

Dated: 30.10.2021

**NOTICE FOR INVITING TENDER THROUGH E-PROCUREMENT –II<sup>nd</sup> Call**

Online Bids are invited from interested firms under **Two bid system (Technical bid/financial bid)** for **Supply, Testing, Installation & Commissioning of Puff Panelled environment (Temperature, Humidity & Air exchange) controlled chamber -02 No's : Puff Panelled environment chamber I: Temperature range 10°C- 40°C – 01 No. & Puff Panelled environment chamber II: Temperature range 2°C to 8°C – 01 No.** to ICAR-IIHR, Manual bids shall not be entertained.

Tender documents may be downloaded from e-procurement website of CPPP  
<https://eprocure.gov.in/eprocure/app> as per the schedule given in CRITICAL DATE SHEET as under:

**CRITICAL DATE SHEET**

Tender No.	F.No.5-65/2021-22/IIHR/SP/
Name of Organization	ICAR-INDIAN INSTITUTE OF HORTICULTURAL RESEARCH, Hesaraghatta Lake Post, Bangalore
Date and Time for Issue/Publishing	30.10.2021 at 04:00 PM
Document Download/Sale Start Date and Time	30.10.2021 at 04:00 PM
Bid Submission start Date and Time	30.10.2021 at 04:00 PM
Bid Submission End Date and Time	18.11.2021 at 03:00 PM
Date and Time for Opening of Technical Bids	20.11.2021 at 11:00 AM
Address for Communication	Asstt. Admn. Officer (Store Purchase), IIHR, Hesaraghatta Lake Post, Bangalore

**INSTRUCTIONS FOR ONLINE BID SUBMISSION**

1. The Tender form/bidder documents may be downloaded from the <https://eprocure.gov.in/eprocure/app>. **Online submission of Bids through** Central Public Procurement Portal (<https://eprocure.gov.in/eprocure/app>) is mandatory. Manual/Offline bids shall not be accepted under any circumstances.
2. Tenderers/bidders are requested to visit the website <https://eprocure.gov.in/eprocure/app> regularly. Any changes/modifications in tender enquiry will be intimated by corrigendum through this website only.
3. In case, any holiday is declared by the Government on the day of opening, the tenders will be opened on the next working day at the same time. The Council reserves the right to accept or reject any or all the tenders.
4. The interested Firms are required to deposit (in original) **EMD of Rs.25,000/-** in the shape of Demand Draft in favour of **THE DIRECTOR, ICAR, UNIT-IIHR payable at Bangalore** may be address to **Asstt. Admn. Officer (Purchase), IIHR, Hessaraghatta Lake Post, Bangalore-560089** on or before **bid opening date and time as mentioned in the Critical Date Sheet.**
5. **Please note that only online Bids will be accepted. However hard copy of documents and technical brochures uploaded by the firm deposited to Asstt. Admn. Officer (Purchase), IIHR, Hessaraghatta Lake Post, Bangalore-560089 on or before bid opening date and time as mentioned in the Critical Date Sheet.**
6. Bidders need not to come at the time of Technical as well as financial bid opening at IIHR. They can view live bid opening after login on CPPP e-procurement portal at their remote end. If any dispute arises, Within Bengaluru Jurisdiction only.
7. The firms are also required to upload copies of the following documents:-
  - **Technical Bid**
    - a) Scanned copy of MSME/ Udyog Aadhar or NSIC is a must for EMD Exemption otherwise, firms have to furnish EMD.
    - b) Scanned copy of Firm's registration with register of companies, PAN Card & GST No.
    - c) Scanned copy of Income Tax Returns Statement, for the financial year 2017-18, 2018-19 & 2019-20
    - d) Scanned copy of duly signed Annexure-I, II, IV & Tender acceptance letter (Annexure-V) duly signed.
    - e) Scanned copy of latest GST returns filed.

- f) Scanned copy of Chartered Accountant certified profit and Loss account, Balance sheet which are used for filing IT returns only are to be enclosed regarding firm's/Company turnover of Rs.30.00 lakhs per year during the period 2017-18, 2018-19 & 2019-20.
- g) Scanned copy of User List/Purchase Orders of its satisfactory installation.
- h) Scanned Copy of Make and model of all systems, sub systems and additional items should be mentioned in the technical bid and complete technical details should be provided in the form of Brochures and write-ups.
- **Financial Bid:-**
    - a) Price Bid as BOQ XXX.xls

**Sd/-**  
**(R G RAMESH)**  
**I/C CHIEF ADMINISTRATIVE OFFICER**

Terms & Conditions

1. The tenderer shall quote rates GST, Freight charges if any, should be indicated separately.
2. The rates should be quoted as per the BOQ uploaded on the CPP Portal (reference may be obtained from Annexure-III). GST, if any, should be indicated separately. It must be noted that the contract shall be awarded to the firm which fulfils all the required terms and conditions and remains L-I for any particular items.
3. The firm must also possess valid PAN No. & GST registration number and a copy of the same must also be enclosed with the tender document.
4. Copy of Financial year 2017-18, 2018-19 & 2019-20, Income Tax Statement may be furnished.
5. The firm should be in existence for over 05 (Five) years in the trade with the business turnover of not less than Rs.30 Lakhs per annum for 2017-18, 2018-19 & 2019-20. Chartered Accountant certified profit and Loss account, Balance sheet to this effect may be enclosed.
6. Modification in the tender documents after the closing date is not permissible.
7. The successful firm shall have to **Supply, Testing, Installation & Commissioning of Puff Panelled environment (Temperature, Humidity & Air exchange) controlled chamber -02 No's : Puff Panelled environment chamber I: Temperature range 10°C- 40°C – 01 No. & Puff Panelled environment chamber II: Temperature range 2°C to 8°C – 01 No. to ICAR-IIHR** within 20 days from the date of confirmed supply order and if the materials are not supplied in time then EMD shall be forfeited. The rates quoted shall be valid for one year from the date of opening of tender.
8. The contractor/bidder or his representative may contact the undersigned at **Tel. No. 080-23086100 Extn: 218 & 217** for any further clarification. No variation in terms of quality of the items shall be entertained or else EMD/Security deposit shall be forfeited.
9. The Director, ICAR-IIHR, shall have the right to reject all or any of the offers, accept more than one offer, and assign part of the job without assigning any reason.
10. Merely quoting of lowest rates does not mean that order shall be given to that firm. The competent authority will finally decide on the basis of quality & performance of past installations.
11. The interested Firms are required to deposit (in original) an **Earnest Money Deposit of Rs.25,000/-** amount mentioned against item in the form of Demand Draft from any of the Commercial Bank in favour of **THE DIRECTOR, ICAR, UNIT-IIHR payable at Bangalore** may be address to **Asstt. Admn. Officer (Purchase), IIHR, Hessaraghatta Lake Post, Bangalore-560089 on or before bid opening date and time as mentioned in the Critical Date Sheet.** No quotation shall be considered without the earnest money deposit. Demand draft drawn in favour of any officer other than 'THE DIRECTOR, ICAR UNIT-IIHR payable at Bangalore' will not be accepted and the tender will be rejected. The earnest money will be refunded only after the finalization of the procurement and no interest will be paid on earnest money. The request letter for refund of EMD & performance security is to be submitted by the firm within six months from date of tender notification.
12. Rates once finalized will not be enhanced/reduced during the currency of the contract.
13. In case, the successful bidder shows inability at any stage, after the contract is finalized and awarded, for whatsoever reason(s), to honour the contract, the earnest money /performance security deposited would be forfeited.
14. The Director, ICAR-IIHR reserves the right to cancel the contract at any time during the currency period of the contract without giving any reason.
15. The firm, to whom the tender will be awarded, will have to deposit the performance security equal to 10% of basic value of the equipment at the time of installation of equipment. If the services are not found to be satisfactory, the performance security is liable to be forfeited. No interest will be paid on performance security.
16. If any dispute(s) arises between IIHR and the firm with reference to the contract, IIHR will decide it and its decision will be binding on the firms.

18. Bid Validity: 180 days

19. Our Institute is registered with DSIR and we are exempted from Excise Duty & Custom Duty. Hence CDEC/DSIR Certificate will be provided to the firm, if demanded. GST/Central Excise should be quoted accordingly.

20. Payment:- The payment will be released after satisfactory certificate from the Indentor.

**Payment Terms: In order to facilitate for speedy settlement of payment you are requested to furnish the following details as below:**

1. **Name of the firm:**
2. **Name of the Bank:**
3. **IFSC Code of Bank:**
4. **Name of the Account & Account No.:**
5. **Branch Code:**
6. **Amount to be paid:**
7. **E-mail address of the party:**
8. **GST No. and Pan No. Copies**

21. **Terms of delivery:**

**Delivery at site viz. —ICAR-IIHR, Hesaraghatta lake Post, Bangalore-560089.**

22. Installation:- Within *10 days from the date of receipt of equipment* in the Institute failing which Liquidated Damage clause shall apply.

Liquidated Damage clause: It would be realized @ 0.5% (half per cent) of the base price (excluding taxes) of the delayed goods for each week of delay subject to maximum 20%.

23. Prices:

**Price structure:**

a) **The tenderer shall quote for the complete requirement of goods and services and for the full quantity as shown against a serial number in the List of Requirements in Annexure - VIII.** Unless otherwise specified in Annexure – VIII, the tenderers are, however, free not to quote against all the serial numbers mentioned in the list of requirements (in case there are more than one serial number in the list of requirements).

b) **The guarantee & warranty of the equipment is two years from the date of Installation.**

c) **The rates and prices quoted shall be in Indian Rupees**

d) **GST rate and amount and basic value of equipment is to shown separately along with GST registration No. and Pan No. otherwise tender will be rejected.**

e) **ICAR-IIHR is registered with DSIR and eligible for Concession GST @ 5% accordingly rates are to be quoted.**

f) The rates and prices quoted by the supplier shall remain firm and fixed during the currency of the contract and shall not be subject to variation on any account, whatsoever, including statutory variations, if any.

g) The performance security / Security deposit, deposited by the successful bidder shall be released on satisfactorily certificate and also producing the relevant documents of GST returns for having remitted the GST amount paid by the institute to the concerned authority.

Dated

‘Terms & Conditions are acceptable’  
(Authorized signatory of the firm)

### Annexure-III

(Reference for BOQ) (To be quoted in format provided on CPP Portal)

Price bid for “**Supply, Testing, Installation & Commissioning of Puff Panelled environment (Temperature, Humidity & Air exchange) controlled chamber to ICAR-IIHR**”, Hesaraghatta lake Post, Bangalore-560 089.

Sl. No.	Name of item	Quantity	Per unit price* (in figures/words) (as per BOQ)
01	<b>Supply, Testing, Installation &amp; Commissioning of Puff Panelled environment (Temperature, Humidity &amp; Air exchange) controlled chamber: Puff Panelled environment chamber I: Temperature range 10°C- 40°C – 01 No. &amp; *</b>	01 No.	
02	<b>Puff Panelled environment chamber II: Temperature range 2°C to 8°C – 01 No.to ICAR-IIHR</b>	01 No.	

\*Annexure-VIII

- Items should be of reputed make and suitable for high end elite users
- GST extra as applicable should be indicated separately in the column provided.
- **The instrument is to be installed at ICAR-IIHR, Hesaraghatta lake post, Bangalore-560089**

**Note:** The above mentioned Financial Proposal/Commercial bid format is provided as BoQ\_XXXX/xls along with this tender document at <https://eprocure.gov.in/eprocure/app>. Bidders are advised to download this BoQ\_XXXX.xls as it is and quote their offer/rates in the permitted column and upload the same in the Financial bid. **Bidder shall not tamper/modify downloaded price bid template in any manner.** In case if the same is found to be tempered/modified in any manner, tender will be completely rejected and EMD would be forfeited and tenderer is liable to be banned from doing business with IIHR.

**Annexure-IV**

EPABX: 080-23086100 Extn: 218 & 217  
FAX: 080-28466291 - Email: purchase.ihr@icar.gov.in



**ICAR-INDIAN INSTITUTE OF HORTICULTURAL RESEARCH**  
**HESSARAGHATTA LAKE POST, BANGALORE-560 089**

Name of the Firm \_\_\_\_\_

Registered/Postal Address \_\_\_\_\_

1	Permanent Account Number (PAN)	
2	GST Registration No.	
3	Bank Details	
a	Bank Name	
b	Branch Address	
c	Account Number	
d	Type of account (current/saving) MICR No.	
e	IFSC Code	
f	Contact person name: Email : Mobile number:	

Date:

Name of the Authorized Signatory

Place:

Stamp & Signature

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

**Date:**

To,  
The Director,  
ICAR-IIHR,  
Hesaraghatta Lake Post,  
Bangalore-560089.

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 lime annexure(s), schedule(s), etc...) which form part of the contract agreement and I/We shall abide hereby the terms/conditions/clauses contained therein.
3. The corrigendum(s) issued from time to time by your department/organization 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 documents/corrigendum(s) in its totality/entirely.
5. I/we do hereby declare that our Firm has not been black-listed/debarred 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/organization shall without giving any notice or reason therefore or summarily reject that 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)



**Annexure-VI**

**INSTRUCTIONS FOR ONLINE BID SUBMISSION**

The bidders are required to submit soft copies of their bids electronically on the CPP Portal, 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.

More information useful for submitting online bids on the CPP Portal may be obtained at <https://eprocure.gov.in/eprocure/app>.

#### REGISTRATION

- 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 Enrollment**' on the CPP Portal which is free of charge.
- As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts.
- Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication from the CPP Portal.
- Upon enrolment, the bidders will be required to register their valid Digital Signature Certificate (class II or Class III certificates with signing key usage) issued by any certifying authority recognized by CCA India (e.g. Sify/nCode/eMudhra etc.) with their profile.
- Only one valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSC's to others which may lead to misuse.
- Bidder then logs in to the site through the secured log-in by entering their users ID/password and the password of the DSC/e-Token.

#### SEARCHING FOR TENDER DOCUMENTS

- 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.
- 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.
- 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

- Bidder should take into account any corrigendum published on the tender document before submitting their bids.
- Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid. Please 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.

- Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document/schedule and generally, they can be in PDF/XLS/RAR/DWF/JPG formats. Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned document.
- To avoid the time and effort required I uploading the same set of standard documents which are required to be submitted as a part of every bid, a provision of uploading such standard documents (e.g. PAN card copy, annual reports, auditor certificates etc.) has been provided to the bidders. Bidders can use 'My Space' or 'Other important Documents' area available to them to upload such documents. These documents may be directly submitted from the 'My Space' area while submitting a bid, and need not be uploaded again and again. This will lead to a reduction in the time required for bid submission process.

## SUBMISSION OF BIDS

- Bidder should log into the site wll in advance for bid submission so that they can upload the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other technical issues.
- The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document.
- Bidder has to select the payment option as 'offline' to pay the tender fee/EMD as applicable and enter details of the instrument.
- Bidder should prepare the EMD as per the instructions specified in the tender document. The original should be posted/couriered/given in person to the concerned official, latest by the last date of bid submission or as specified in the tender documents. The details of the DD/any other accepted instrument, 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.
- Bidders are requested to note that they should necessarily submit their financial bids in the Format provided and no other format is acceptable. If the price bid has been given as a standard BoQ format with the tender document, then the same is to be downloaded and to be filled by all the bidders. Bidders are required to download the BoQ file, open it and complete the white coloured (unprotected) cell with their respective financial quotes and other details (such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder should save it and submit it online, without changing the filename. If the BoQ file is found to be modified by the bidder, the bid will be rejected.
- The server time (which is displayed on the bidders' dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.
- All the documents being submitted by the bidders would be encrypted using PKI 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. Data storage encryption of sensitive fields is done. 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.

- The uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- Upon the successful and timely submission of bids (i.e. after clicking 'Freeze Bid Submission' in the portal), the portal will give a successful bid submission message and a bid summary will be displayed with the bid no. and the date and time of submission of the bid with all other relevant details.
- The bid summary has to printed and kept as an acknowledgement of the submission of the bid.

#### ASSISSTANCE TO BIDDERS

- Any queries relating to the tender documents 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.
- 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.

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## Details of Equipments &amp; EMD

Sl. No.	Purchase of item	Qty	Earnest Money in INR	File. No. for reference
01	<b>Supply, Testing, Installation &amp; Commissioning of Puff Panelled environment (Temperature, Humidity &amp; Air exchange) controlled chamber: Puff Panelled environment chamber I: Temperature range 10°C- 40°C – 01 No. &amp; Puff Panelled environment chamber II: Temperature range 2°C to 8°C – 01 No.to ICAR-IIHR*</b>	02 No's	Rs.25,000/-	F.No.5-65/2021-22/SP/IIHR

Note: EMD defined on to the Portal is MINIMUM. Bidder has to submit the EMD as per item for which quoting for.

**\*Installation at ICAR-IIHR, Hesaraghatta lake Post, Bangalore.**

**Technical Specification For Supply, Testing, Installation & Commissioning of Puff Panelled environment (Temperature, Humidity & Air exchange) controlled chamber: Puff Panelled environment chamber I: Temperature range 10°C- 40°C – 01 No. & Puff Panelled environment chamber II: Temperature range 2°C to 8°C – 01 No.to ICAR-IIHR**

**a) Puff Panelled environment chamber I: Temperature range 10°C-40°C- 01 No.**

**Specifications:**

1. Pre-fabricated puff panel for room size 5mt x3mtx3mt, four side wall ceiling and airtight door
2. 1500 CFM 100mm static air handling unit consist blower /motor cooling, heating coil and humidification fog nozzles along with mist eliminator fresh air return air mixing chamber along with Control dampers.
3. 8-12 air exchange per day along with separate controller.
4. Refrigeration system 17kw twin circuit heating and cooling reversable circuit refrigeration unit
5. Supply return and fresh air ducting made out 22 g Gi sheet along with insulation and installation accessories
6. CO<sub>2</sub> ventilation system along with necessary sensor and controller
7. VFD controller, temperature, RH controller for maintaining various climate condition in the growth chamber
8. Ambient Temperature [in °C]: 43°C
9. Designed Room Temperature [ $\pm 2$  °C]: (+) 10°C to 40°C
10. Relative Humidity: 80 to 85%
11. Product Incoming Temperature [°C]: (+) 30°C
12. Product loaded into the room per Day: Mushroom growing bags
13. Working Hrs: 24 hrs
14. Specific heat [Cp] Above Freezing [kJ/kg K]: 3.88 kJ/kg K
15. Material of Insulation: RPUF
16. Thickness of Insulation [mm]: 60 mm for wall, 60 mm for ceiling
17. Wall Lamination In/Out: PCGI/PCGI
18. Ceiling [In/Out]: PCGI/PCGI
19. Serration on panel: Yes
20. Type of floor insulation: RPUF with polythene sheet as vapor barrier
21. Thickness of Floor insulation [mm]: 60mm
22. Floor Finish: RCC in Client / Other agencies Scope
23. Size of Door: 900 x 2000 mm
24. Type of refrigeration system: Split Type
25. Type of Cooling: DX Type
26. Capacity of Refrigeration system [kW]: 4 KW x 1 Nos (with Humidifier Chamber conditioned air will throw to the Room)
27. Type of Refrigerant: R407C
28. Type of Compressor: Hermetic Type
29. Type of Condenser: Air Cooled type
30. No of Condensing Units: 1 No (4kW x 1 No.(1 working))
31. No of Evaporator Units: 1 No (4 kW x 1 No.(1 working))

32. Electrical Panel for Ref System: Inbuilt in condensing unit
33. Type of evaporator units: Ceiling Suspended
34. MOC for evaporator units: GI casing
35. Power Supply: 415 V, 50 Hz, 3 phase
36. 60 mm thick PIR Insulated Wall Panel with PPGS/PPGS Lamination: 50 Sq M
37. 60 mm thick PIR Insulated Ceiling Panel with PPGS/PPGS Lamination: 15 Sq M
38. 60 mm thick PUF Panel : 15 Sq M
39. Sliding Door - 900x 200: 1 No.s
40. Strip Curtain suitable for 900 X 2000 mm door clear opening suitable for positive cold room: 1 No.s
41. Flashing & Necessary accessories for wall and ceiling – PP: 65 RMT
42. Air-Cooled Condensing Unit having 4 kW capacity, R404A, hermetic compressor, for plus 15°C room temperature, suitable for standard ambient conditions with evaporators. : 1 No.s.
43. Chamber should be connected with necessary RO water purifying system
44. Bidder should have a minimum of 5 years' experience in the field of mushroom cold chamber installation and should provide at least 3 clients satisfactory certificates

**b) Puff Panelled environment chamber II: Temperature range 2°C to 8°C – 01 No.**

1. Cabinet Details
  - Length: 6'
  - Width: 6'
  - Height: 8'
  - Insulation thickness: mm 60
2. Storage space
  - Total Volume: litre 3500
  - Shelf Capacity: kg 250
3. Cabinet foot print
  - Length: 6'
  - Width: 6'
4. Panel Door Size: mm 600 x 1650
5. Refrigeration system
  - Temperature Range: Deg C +2 to +8
  - Refrigerant: R407C
  - Refrigeration capacity: kW 2
  - Type of condensing Unit: Air cooled Unitary type
6. Product to be stored: Mushroom cultures, processed products and dry products
7. Product Incoming Temperature [°C]: (+) 30°C
8. Working time: 24hrs
9. Material of Insulation: RPUF
10. Thickness of Insulation [mm]: 60 mm for wall, 60 mm for ceiling
11. Wall La Type of evaporator units mination In/Out: PCGI/PCGI
12. Ceiling [In/Out]: PCGI/PCGI
13. Serration on panel: Yes
14. Type of floor insulation: RPUF with polythene sheet as vapor barrier
15. Thickness of Floor insulation [mm]: 60 mm
16. Floor Finish: RCC in Client

17. Size of Door: 900 x 2000 mm
18. Type of refrigeration system: Split Type
19. Type of Cooling: DX Type
20. Type of Refrigerant: R407c
21. Type of Compressor: Hermetic Type
22. Type of Condensor: Air Cooled type
23. No of Condensing Units: 1 No (4kW x 1 No.(1 working))
24. No of Evaporator Units: 1 No (4kW x 1 No.(1 working))
25. Electrical Panel for Ref System: Inbuilt in condensing unit
26. Type of evaporator units: Ceiling Suspended
27. MOC for evaporator units: GI casing
28. Temperature / humidity indicator-cum-controller: Micro-Processor based
29. Power Details
  - Consumed Power: kW 1.2
  - Connected Power: kW 1.7
  - Power supply: 230V, 1 Ph, 50HZ
30. Should provide necessary SS treys
31. Bidder should have a minimum of 5 years' experience in the field of mushroom cold chamber installation and should provide at least 3 clients satisfactory certificates

**Sd/-**  
**(R G RAMESH)**  
**I/C CHIEF ADMINISTRATIVE OFFICER**