

CENTRAL POLLUTION CONTROL BOARD  
REGIONAL DIRECTORATE (WEST), NEAR VMC WARD OFFICE-10, SUBHANPURA, VADODARA-390023



COMPETITIVE BIDDING

FOR

SUPPLY, INSTALLATION & COMMISSIONING OF NOISELESS/ SILENT AIR COMPRESSOR ALONG WITH AIR PURIFICATION SYSTEM, SS TUBING, PURE GAS HANDLING CHAMBER AND 19 INCH RACK FOR RING TEST & STATIC INJECTION FACILITY

E-BIDDING DOCUMENT

**Supply, installation and commissioning of Noiseless Air Compressor alongwith Air purification System, SS tubing, pure gas handling chamber and 19 inch rack for ring test and static injection facility**

**Bid document**

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**CENTRAL POLLUTION CONTROL BOARD**  
(Ministry of Environment and Forests, Government of India)  
Parivesh Bhawan  
Regional Directorate (West), Near VMC Ward Office 10,  
Subhanpura, Vadodara-390023  
Tel.: 0265-2392831-33, 2392985-86 Fax: 0265-2392987

ZOW/Tech-210/2017-18

Date: 20.09.2017

**Name of Project: Supply, installation and commissioning of noiseless/silent Air Compressor along with air purification system, SS tubing, pure gas handling chamber and 19 inch rack for mounting ambient air quality analysers for Ring test & Static injection facility (Calibration lab) at CPCB, Regional Directorate, Vadodara.**

### TENDER NOTICE

Central Pollution Control Board (CPCB) Regional Directorate, Vadodara invites single stage two bid system (technical and financial) through e-submission of competitive bids for the supply, installation and commissioning of noiseless/ silent Air Compressor along with air purification system, SS tubing, pure gas handling chamber and 19 inch rack for mounting ambient air quality analysers for the Ring test & Static injection facility (Calibration lab) as per the specification provided in **Annexure-1** and conforming to national standards. Manual bid shall not be accepted.

Name of the work	:	Supply, installation and commissioning of noiseless/silent Air Compressor along with air purification system, SS tubing, pure gas handling chamber and 19 inch rack for mounting ambient air quality analysers for Ring test & Static injection facility (Calibration lab)
Tender Fee	:	Nil
EMD Price	:	<b>Rs. 10,000/-</b> (Rs. Ten Thousand only) in the form of A/c Payee Demand Draft in favour of 'Central Pollution Control Board' payable at Vadodara.

### CRITICAL DATE SHEET

Date of Publishing of Tender	03.10.2017
Bid Document Download start Date	03.10.2017
Clarification START Date	03.10.2017
Clarification END Date	03.10.2017
Bid Submission START Date	03.10.2017
Bid Submission END Date	03.11.2017
Bid Opening Date	06.11.2017 at 16:00hrs
Bid Opening Venue	<b>Central Pollution Control Board</b> Regional Directorate (West), Near VMC Ward Office 10, Subhanpura, Vadodara-390023

**Supply, installation and commissioning of Noiseless Air Compressor alongwith Air purification System, SS tubing, pure gas handling chamber and 19 inch rack for ring test and static injection facility**

**Bid document**

## I. Bid Submission

1. This invitation for the Bid is open to all the eligible suppliers, subject to the submission of certified and satisfying documentation at <https://eprocure.gov.in/eprocure/app> (Portal). The bidder shall furnish satisfactory evidences to establish that bidder meets the requisite qualifying requirements.
2. Bidders may visit Websites: <https://eprocure.gov.in/eprocure/app> directly for details terms and conditions of e-tender. Bidders willing to take part in the process of e-tendering are required to obtain Digital Signature Certificate (DSC) from any authorized Certifying Authority (CA) under CCA, Government of India viz. NIC, DSC is given as a USB e-token. After obtaining the DSC from the approved CA they required to register the fact of possessing the DSC through the registration system available in the website.
3. Bidders may download a complete set of bidding documents from the website: <https://eprocure.gov.in/eprocure/app> with the help of e-token. This is the only mode of collection of tender document. The copy of tender is also available on CPCB website: [www.cpcb.nic.in](http://www.cpcb.nic.in). Tenders are to be submitted online. Details of submission procedure are given below under 'Instructions to Bidders'.
4. There is no fee for bid document (Tender Fees) for this bidding. The Earnest Money Deposit (EMD) of Rs. 10,000/- is required to be deposited along with this tender. Scanned copy of EMD should be uploaded in the specific folder marked for 'EMD' along with the bid. However, Earnest Money in original must be submitted physically within the due date & time at **Central Pollution Control Board, Parivesh Bhawan, Regional Directorate (West), Near VMC Ward Office 10, Subhanpura, Vadodara-390023** marked as 'Supply, installation and commissioning of noiseless Air Compressor along with air purification system, SS tubing, pure gas handling chamber and 19 inch rack for mounting ambient air quality analysers for Ring test & Static injection facility at CPCB, Regional Directorate, Vadodara' before bid closing date. The earnest money of the unsuccessful bidder will be returned without any interest after the purchase is finalized or within two month from the date of opening of the quotation whichever is later. There shall not be any interest payable on EMD. The earnest money of successful bidder will be returned without any interest within one month of the successful supply, satisfactory installation and proper commissioning of the system.
5. Bid shall not be entertained without EMD. The Firm who seek exemption from depositing earnest money being small scale industry, being registered with NSIC, DGS&D or other Government agencies which entitle them for exemption must submit the valid Registration Certificate. The scanned copy of Government Notification granting exemption from deposit of EMD must be uploaded/submitted along with the Techno-commercial part of the bid and self-certified physical copy must be submitted in a manner specified for EMD submission. EMD Exemption will be granted only to those specified in the Certificate of Registration.
6. This bidding takes simultaneous bidding procedure in two part (Folder) bidding systems as Part-1: Techno-commercial bid for participation and Part-2: Financial Bid. All the eligible and interested bidders are required to submit the Technical offer for the item tendered alongwith all supporting information simultaneously through online e-tender system. Technical offer

will be opened and analyzed first. Financial Bids (to be submitted in the Template provided with the Tender document) will be opened only for technically qualified bidders.

7. For amendment in bidding, in documents or extension of bid submission date, if any, bidders are requested to visit websites <https://cpcb.nic.in/Tenders.php> and <https://eprocure.gov.in/eprocure/app>. Board will not publish any notice in newspapers for such amendment/extension.
8. Bidders must submit their bids online for **“Supply, installation and commissioning of noiseless/silent Air Compressor along with air purification system, SS tubing, pure gas handling chamber and 19 inch rack for mounting ambient air quality analysers for Ring test & Static injection facility (Calibration lab) at CPCB, Regional Directorate, Vadodara”** as per Technical specifications, attached with this bid document.
9. The CPCB will not be responsible for any cost(s) or expense(s) incurred by bidders in connection with the preparation or delivery of bids.
10. The CPCB reserves the right to reject any or all the tenders without assigning any reason whatsoever.
11. In the event of date being declared as a closed holiday for CPCB Regional Directorate Vadodara Office, the date for submissions of bids and opening of bids will be the following working day at the specified time.
12. No pre-bid meeting is planned. Any clarification on this bid document may be addressed to the **Regional Director, CPCB Vadodara** within the stipulated time. Any bidder desirous to see the installation arrangement, may visit Ring Testing facility installed in Air Laboratory at CPCB-HO at Parivesh Bhawan, East Arjun Nagar, Delhi with prior appointment with concerned official on a working day. The eligible bidder may also visit the laboratory of CPCB Regional Directorate, Vadodara with prior information for better understanding of site and requirement suitability on any working day before the submission of bid.
13. The bidder should have at least three years’ experience in similar installation in any laboratory or industry. The bidder should furnish the information on all past supplies and satisfactory performance alongwith Techno-commercial bid. Bidder or their authorized representative should have adequate financial and technical capability to execute the contract.
14. Bidder who has downloaded the tender from the CPCB website [www.cpcb.nic.in](http://www.cpcb.nic.in) or Central Public Procurement Portal website <https://eprocure.gov.in/eprocure/app> shall not tamper/modify the tender form in any manner. In case, if the same is found to be tampered/ modified in any manner, tender will be completely rejected and tenderer is liable to be banned from doing business with CPCB.

15. For any Tender related assistance/tender questionnaire please contact: Regional Director, Central Pollution Control Board Regional Directorate (W), Parivesh Bhawan, Near Ward Office No. 10., Subhanpura, Vadodara, email: [westzonepcb@yahoo.com](mailto:westzonepcb@yahoo.com).
16. 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.

## II. Instruction to the bidders

1. 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 to get registered on 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>.

### 2. REGISTRATION

- i. Bidders are required to enrol 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.
- ii. As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts.
- iii. Bidders are advised to register their valid email address and mobile numbers during registration process. These would be used for any communication from the CPP Portal.
- iv. Upon enrolment, the bidders will be required to register their valid Digital Signature Certificate issued by any Certifying Authority recognized by CCA India (e.g. Sify / nCode / eMudhra etc.), with their profile.
- v. 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.
- vi. Bidder then logs in to the site through the secured log-in by entering their user ID / password and the password of the DSC / e-Token.

### 3. SEARCHING FOR TENDER DOCUMENTS

- i. 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.
- ii. 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.

- iii 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.

#### **4. PREPARATION OF BIDS**

- i Bidder should take into account any corrigendum published (if any) for the tender document before submitting their bids.
- ii Please go through the tender notice and the tender document carefully to understand the documents required to be submitted as part of the bid. Please note the number of covers/ folders 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 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 format. Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned document.
- iv To avoid the time and effort required in 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.

#### **5. SUBMISSION OF BIDS**

- i. Bidder should log into the site well 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 issues.
- ii. The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document.
- iii. Bidder has to select the payment option as “offline” to pay the EMD and enter details of the instrument.
- iv. 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. 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.
- v. 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) cells 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.

## 6. TIMELINE AND SECURITY OF SUBMITTED BID

- i 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.
- ii 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.
- iii The uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- iv Upon the successful and timely submission of bids (ie after Clicking "Freeze Bid Submission" in the portal), the portal will give a successful bid submission message & a bid summary will be displayed with the bid no. and the date & time of submission of the bid with all other relevant details.
- v The bid summary has to be printed and kept as an acknowledgement of the submission of the bid. This acknowledgement may be used for future reference.

## III. GENERAL TERMS AND CONDITIONS

1. The rate quoted should be net i.e. inclusive of all taxes, freight charges, installation and commissioning, etc. No increase in rate shall be allowed. The rates should be quoted in figures as well as in words.
2. The Specifications given are generalised in nature and not exhaustive. However, the bidders should primarily adhere to the specifications given in **Annexure-1**. Any advance feature should be delineated in the format given in **Annexure-2** to improve the competitiveness of the bidder.
3. The entire items should be treated as single package and any sub-letting is not allowed. Therefore, the eligible bidders should quote for all the required items.
4. The installation, commissioning, leak check and performance testing of all specified items tendered herewith for ring testing & static injection facility will be within the scope of supplier. The bidder should also provide detailed manual of equipment wherever available like air compressor, etc. The bidder should be competent enough to supply all tendered items. They should also produce enough documents to prove their good track records in the field of manufacturing/ supply of similar equipment to other parties.
5. The rate quoted should be valid for at least three months from date of opening of the Technical Bid. Rate quoted for a shorter period i.e. less than three months from the date of opening of bids will be rejected. However, the extension of the validity of the quotation beyond three months will be subjected to mutual agreement between competent Authority of CPCB and the successful bidder.



6. The Technical bid at a minimum should contain detailed specifications of **items tendered**, Brochure of product, List of clients using your similar equipment, etc. It should be noted that mere quoting of lowest rates will not entitle any bidder to get the order. All the terms and conditions such as specifications, validity, warranty period, post installation service provisions, taxes etc. will be used as parameter to shortlist/ evaluate the successful bidders.
7. Financial bid should contain the unit price and summed up as cumulative price and inclusive of all Taxes/Octrai etc., in detail in figures as well as in words. All other supporting documents and salient features should be submitted in Technical bid folder only as the financial bid will only be opened for the bidder whose quotation will match with the specification attached as **Annexure-1** and preference may be given to the supplier who quotes with additional features (if any) and product performance at the other places where the similar system is installed by the bidder. Bidders are advised to use the format given in **Annexure-2, Annexure-3** and **Annexure-4** while bidding. Annexure-2 and Annexure-3 should be submitted in technical bid.
8. Bid shall be opened as per the date and time given in Tender Critical Date Sheet.
9. The date and time for submission of quotations or opening of bids is normally fixed but may be extended by Competent Authority at his/her sole discretion.
10. The competent authority of CPCB reserves the right to accept or reject any or all the bids and placing the purchase order.
11. **Material supply:** The noiseless/ silent **Air Compressor, air purification system, gas handling chambers, etc. all items** are required to be supplied, installed and commissioned **within 4 weeks** of date of placing of confirmed order by CPCB. Failure if any may be liable to cancel the order. However, on request of successful bidder, CPCB may or may not extend the timeline beyond four weeks for supply, installation and commissioning of Air Compressor at its sole discretion.
12. If the material is found to be sub-standard and not meeting the specification quoted, the supply order shall be cancelled without any prior information and or without any financial payment.
13. **Payment terms and conditions:** No advance payments will be made. All the payments will be made either through online transfer of amount to your account or through cheque only and in Indian currency (rupees) after satisfactory supply and installation of material and production of bills/invoice in duplicate along with CST/GST numbers. The 90% of payments will be released after supply, installation and leak check and balance 10% will be released after satisfactory performance of installed equipment after completion of one year. The one year period shall be reckoned from the date of satisfactory installation of complete items. Therefore, only 90% of the total quoted price by the successful bidder should be claimed after satisfactory supply and installation. The balance 10% retaining amount will have to be claimed by invoice or bills after completion of one year and performance certificate from the relevant CPCB end user.
14. **Post installation Service:** The competent servicing engineer of the supplier will have to make two visits after installation and commissioning free of charges within one year period, if any

operational issue arises. The copy of visit/ service report will have to be submitted along with invoice/ bills of the material at the time of claiming retention amount. The equipment should have at least one year warranty. The warranty period should be clearly specified in technical bid.

15. **Correspondences:** All the communication/ materials receipt should be in the name of **The Regional Director, Regional Directorate (West), CPCB, Near VMC Ward Office -10, Subhanpura, Vadodara-390023, Gujarat.**
16. All correspondences should be made either through courier or registered/ speed post. Transition loss of any kind in sending the quotations/materials will be the responsibility of bidders.
17. **Clarifications and dispute:** All typographical errors are subject to corrections. In case of any dispute the decision of Chairman, Central Pollution Control Board will be final and binding on both the parties.

Yours faithfully,

(B.R. Naidu)  
Regional Director

TECHNICAL SPECIFICATIONS

Scope of work: Supply, installation and commissioning of noiseless/silent Air Compressor along with air purification system, SS tubing, pure gas handling chamber and 19 inch rack for mounting ambient air quality analysers in Ring test & Static injection facility (Calibration lab) at CPCB, Regional Directorate, Vadodara

ITEM NO. 1. TECHNICAL SPECIFICATIONS FOR “AIR COMPRESSOR”

1. **Equipment Name:** Scroll type, air cool and oil free Air Compressor with Dryer (Noise Less)
2. **Quantity required:** One (01)
3. **Description:** Pure Oil-free Air, Energy efficient, inbuilt low noise level (Maximum 57 dBA), Simple & Reliable.
4. **Capacity:** Minimum capacity for air compressor buffer tank should be 250 Litres.
5. **Working Pressure:** Working pressure should be 10 bar.
6. **Motor:** Air compressor should be driven by 5HP TEFC electric motor suitable for 230/440 volts, single 3- phase, 50Hz, AC supply.
7. **Noise Level:** With sound insulated canopy to ensure sound levels of about 57 dB.
8. **Air inlet filter:** High efficiency to eliminate dust and particles below 1 µm.
9. **Automatic Regulation:** Provision of automatic stop when the required pressure is reached avoiding unnecessary energy cost.
10. **Others required feature:** Anti-vibration pad, earth protection, horizontal air receiver mounting, etc.
11. Entire installation, commissioning and performance testing will be within the scope of the supplier

ITEM NO. 2. TECHNICAL SPECIFICATIONS FOR “CHARCOAL FILTER”

1. **Equipment Name:** Activated Charcoal Filter
2. **Quantity Required:** one (01)
3. **Dimension:** Activated charcoal should be filled in two feet long and 3” (inches) outer diameter.
4. **Description:** i) Acrylic Cylinder, acrylic cover on both sides with threading arrangement for closing and opening.  
ii) Arrangement of nozzles on both sides of acrylic covers (in and outside) for connection of flexible pipe/ rubber pipe of internal diameter 9mm for compressed air should be made.  
iii) The charcoal should be of superior quality to purify the compressed air.

ITEM NO. 3. TECHNICAL SPECIFICATIONS FOR “REGENERATION DRIER”

1. **Equipment Name:** Electronic Regeneration Dryer
2. **Quantity Required:** one (01)
3. **Description:** 2 Stages, Solenoid valve alternatively operated on  $230 \pm 10 \%$ , 50 Hz supply to remove the 100 % moisture in the compressed air.

4. Arrangement of nozzles of outer diameter 9mm on both sides of dryer (in and outside) for connection of compressed air and dry zero air should be made.

#### **ITEM NO. 4. TECHNICAL SPECIFICATIONS FOR "STAINLESS STEEL TUBING FOR CALIBRATION GAS FLOW"**

1. **Equipment Name:** Stainless Steel (SS) Pipes for Calibration Gas Flow
2. **Quantity Required:** As per actual measurements, after supply and fixing.
3. **Pipe Description:** One SS pipe of 6.3mm outer diameter on wall surface for flowing of various calibration gases such as SO<sub>2</sub>, NO, CO and Copper pipe of 12 mm outer diameter for N<sub>2</sub>, zero air with:
  - (i) **Colour Coding:** Colour coding/painting in laid SS tubes for individual gas identification.
  - (ii) **Control Valve:** Control valve on both sides of SS tube i.e. gas in and gas out sides.
  - (iii) **Pressure gauges:** Pressure gauges of the range of 0 to 150 bar at the out let / exit of the each calibration gases.

*Note: The tenderer may like to see the existing system in Air Laboratory of CPCB Head Office at Delhi for better understanding, if so desire.*

#### **ITEM No. 5. TECHNICAL SPECIFICATIONS FOR PURE GAS HANDLING CHAMBER: TYPE MODULAR AND CUSTOMISED FABRICATION**

Chamber of size 4×3×3 (H × W × D) feet close from all sides with laminated board of min. 1" (1 inch) thickness front side open with sliding of acrylic door with handle and locking arrangement should be equipped with following items:

1. Double tube light fitting of 20 W = 1 No.
2. 9" exhaust fan with proper hood for exhausting the gases outside the chamber and room where it is to be installed.
3. Cylinder holding arrangement for holding 02 nos. gas cylinders.
4. Inside proper space for keeping 1 no. gas cylinder, 1 no. gas vacuum pump etc. The base of the chamber should be sturdy to bear the load of these system/accessories.
5. The chamber shall be used for working with 100 % concentrated gases such as SO<sub>2</sub>, NO<sub>2</sub> etc.
6. The chamber shall be placed on a concrete slab/platform of at least a height of 4 feet. The design drawing of pure gas handling chamber shall be mutually agreed.
7. The design of the chamber shall be of modular type to accommodate at earmarked location or fabricated at site suitable to the requirement.

#### **ITEM No. 6. TECHNICAL SPECIFICATIONS FOR "RACKS (19"-INCH) FOR HOUSING ANALYZERS, CALIBRATORS, MFC CONTROLLER AND OZONE GENERATOR."**

1. **Equipment Name:** Rack Cabinet
2. **Quantity Required:** 02
3. **Dimension:**
  - (i) The dimensions of the rack without doors, with Aluminium section and rear of 2 mm steel sheet, one removable roof plate, fitted with 4 filling eyebolts.
  - (ii) One gland plate three part, one pair of 475 mm (19") mounting angles depth adjustable in 25 mm pitch pattern fitted on two fixing angle approximately 150 mm unit from the front standard.

**Width-600mm, Height-1400mm, Depth-800mm**

**Supply, installation and commissioning of Noiseless Air Compressor alongwith Air purification System, SS tubing, pure gas handling chamber and 19 inch rack for ring test and static injection facility**

**Bid document**

4. **Description:** Suitable 19" rack cabinet to accommodate all analyzers in one rack and Mass flow meters and other items in second rack, etc.
5. Rack should be wheel mounted with locking arrangement for easy movement within the room.
6. The rack should be powder coated and all nuts and bolts should be cadmium coated.

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**APPLICATION FORM**

(To be filled by the bidder and submitted in technical bid Folder after fully understanding the tendering requirement as per bid document)

1.	Name and full address of the Bidder including Telegraphic Address/Telex No. and Fax No.	:	
2.	Name and Designation of the Head of the Firm/supplier and his Telephone No.	:	
3.	Name, Designation, Address, Telephone & Fax Numbers of the Authorized Person who may be contacted during the process of the purchase concerned under this document	:	
4.	Whether the items are quoted for complete facility	:	
5.	Whether the items as per specifications given (Any change should be highlighted in <b>Annexure-3</b> )	:	
6.	Validity of Tender	:	
7.	If the tender documents are accepted in full (Yes or No)	:	
	Income Tax Clearance Certificate attached (Latest) (Yes or No) with PAN Number	:	

Place:

Date :

Legally Binding Signature with stamp

**TECHNICAL BID FORM**  
(To be submitted in Technical bid folder)

Item No.	Name	Quantity	Specifications	Deviation if any
1	Air Compressor 250 lit Capacity (Noise Less).	01	Scroll type, air cool and oil free Air Compressor with Dryer, Pure Oil-free Air, Energy efficient, inbuilt low noise level (Maximum 57 dBA, Simple & Reliable, Minimum capacity for air compressor buffer tank should be 250 Litres. Working pressure should be 10 bar. Air compressor should be driven by 5HP TEFC electric motor suitable for 230/440 volts, single 3- phase, 50Hz, AC supply. With sound insulated canopy to ensure sound levels of about 57 dB. It should have high efficiency filter to eliminate dust and particles below 1 µm. Provision of automatic stop when the required pressure is reached avoiding unnecessary energy cost. Anti-vibration pad, earth protection, horizontal air receiver mounting, etc. arrangements.	
2	Charcoal Filter	01	Activated charcoal should be filled in two feet long and 3" (3inch) outer dia. Acrylic Cylinder, acrylic cover on both sides with threading arrangement for closing and opening. Arrangement of nozzles on both sides of acrylic covers (in and outside) for connection of flexible pipe/ rubber pipe of internal dia 9mm for compressed air should be made. The charcoal should be of superior quality to purify the compressed air.	

**Supply, installation and commissioning of Noiseless Air Compressor alongwith Air purification System, SS tubing, pure gas handling chamber and 19 inch rack for ring test and static injection facility**

3	Regeneration Dryer	01	Electronic regeneration dryer, 2 stages, solenoid valve alternatively operated on 230V+ 10%, 50 Hz supply to remove the 100% moisture in the compressed air. Arrangement of nozzles of outer dia 9 mm on both sides of dryer (in and outside) for connection of compressed air and dry zero air should be made.	
4	Supplying and fixing of Stainless Steel pipes for calibration gas flow	As per actual measurements, after supply and fixing.	Supplying and fixing SS pipes of 6.3 mm outer dia on wall surface for flowing of various calibration gases such as SO <sub>2</sub> , NO, CO, & copper pipe of 12 mm outer dia for N <sub>2</sub> , zero air with: <ul style="list-style-type: none"> <li>- Colour coding/painting in laid SS pipes for individual gas identification.</li> <li>- Control valve on both sides of SS pipe i.e. gas in and gas out sides.</li> <li>- Pressure gauges of the range of 0 to 150 bar at the out let / exit of the each calibration gases.</li> </ul> <p><b><u>The total quantity of SS pipe and its associated accessories shall be calculated as per actual site requirement.</u></b></p>	
5.	Pure Gas Handling Chamber	01	Chamber of size 4x3x3 (H x W x D) feet close from all sides with laminated board of min. 1" (1 inch) thickness front side open with sliding of acrylic door with handle and locking arrangement should be equipped with following items: <ol style="list-style-type: none"> <li>1. Double tube light fitting of 20 W = 1 No.</li> <li>2. 9" exhaust fan with proper hood for exhausting the gases outside the chamber and room where it is to be installed.</li> <li>3. Cylinder holding arrangement for holding 02 nos. gas cylinders.</li> </ol>	

Supply, installation and commissioning of Noiseless Air Compressor alongwith Air purification System, SS tubing, pure gas handling chamber and 19 inch rack for ring test and static injection facility

Bid document



			<p>4. Inside proper space for keeping 1 no. gas cylinder, 1 no. gas vacuum pump etc. The base of the chamber should be sturdy to bear the load of these system/accessories.</p> <p>5. The chamber shall be used for working with 100 % concentrated gases such as SO<sub>2</sub>, NO<sub>2</sub> etc.</p> <p>6. The chamber shall be placed on a concrete slab/platform of at least a height of 4 feet. The design drawing of pure gas handling chamber shall be mutually agreed.</p> <p>7. The design of the chamber shall be of modular type to accommodate at earmarked location or fabricated at site suitable to the requirement.</p>	
6	19" (inch) rack for housing Analyzers, calibrators, MFC Controller and Ozone Generator.	02	Suitable 19" rack cabinet to accommodate all analyzers, zero air generators etc. The dimensions of the rack without doors, with Aluminium section and rear of 2 mm steel sheet, one removable roof plate, fitted with 4 filling eyebolts. Four gland plate three part, one pair of 475 mm (19") mounting angles depth adjustable in 25 mm pitch pattern fitted on two fixing angle approximately 150 mm unit from the front standard.	

**Note: Separate technical specification brochure / leaflet must be uploaded for justification.**

(Signature with Date & Stamp of the Bidder)

FINANCIAL BID FORM

Details showing quantity, specification and other details offered

(To be filled by the bidder and must be earmarked as "Price Bid/ Financial bid)

Sr. No.	Name of the equipment	Quoted Unit Price (in Rs.)	Total Quantity	Total Cost	Total Taxes (in Rs.)	Insurance Charges, if any (in Rs.)	Freight Charges (in Rs.)	Installation Charges, if any (in Rs.)	Net Total Price

**NOTE:-** If this sheet is not sufficient to accommodate the bid details, the additional row containing the same proforma may be used.

(Signature with Date & Stamp of the Bidder)

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