

Pre-Bid Meeting Minutes

Tender No.: Tender No. PUR/EQP/130/(2025-26)

Subject: Supply, Installation, and Commissioning of Ion Chromatography system

Date: 5th June 2026, **Time:** 2.30 PM onwards

The Pre-Bid Meeting was convened at CSIR-AMPRI, Bhopal, to discuss and clarify the technical specifications and bid conditions for Tender No. Tender No. PUR/EQP/130/(2025-26) pertaining to the procurement of Ion Chromatography system. The pre-bid meeting was conducted in hybrid mode to facilitate participation from interested bidders both physically and through an online platform. Dr. Babulal Rabari attended the meeting through online mode as External Domain Expert. A total of two firms expressed interest in participating in the pre-bid meeting through online mode via a shared video conference link (attendance attached).

List of Firm Attended the Pre-Bid Meeting: M/s Thermo Fisher Scientific India Pvt. Ltd. and M/s Metrohm India Pvt. Ltd in Online mode

The queries raised by prospective bidder was received via email and discussed during the pre-bid meeting. The detailed responses, recommendations, and justifications are attached as follows.

S. No.	Tender document reference	Tendered Specification	Query/request for amendment	Response and recommendations
M/s Thermo Fisher Scientific India Pvt. Ltd.				
1	Chapter 4 Technical specification point number 05	5. Suppressor should be of packed bed type with high loading and high back-pressure (at least 350 psi or more) tolerance with continuous regeneration.	Suppressor should be packed bed type with high loading and high back pressure (at least 350 psi or more) tolerance with continuous regeneration / single membrane based suppressors with infinite capacity, lowest dead volume, without switchover	Accepted. 'single membrane based suppressors with infinite capacity, lowest dead volume, without switchover' part is added to point 5 i)
2	Chapter 4 Technical specification point number 08	8. Autosampler - At least 35 positions of sample vials to be provided	At least 50 positions or more of sample vials to be provided	No change required.
3	Chapter 4 Technical specification point number 16	At least 50 positions or more of sample vials to be provided	Kindly confirm if Table to be quoted.	Clarified and retained
4	Chapter 4 Technical specification point number 23	After-sales service: Quotation for annual maintenance contract / after-sales service contract should be provided for the next 3 years after the warranty period. AMC charges will also be included in financial comparative chart for deciding the lowest bid.	Kindly confirm if Total 3 years warranty + 3 years AMC to be quoted intender and will it be taken into price calculation or not.	Clarified and retained.
5		1.12.7 The Purchaser is registered with Dept. of Scientific & Industrial Research, Govt. of India and concessional customs duty and GST & IGST are leviable vide notification No. 54/2002-Customs on all imports covered under Notification No.51/96-	Kindly provide customs duty exemption certificate to understand actual duty and taxes.	Clarified and retained.

		Customs Notification dated 23.07.1996, No.47/2017-Integrated Tax (Rate) and Notification No.45/2017-Central Tax (Rate) both dated 14 th November, 2017		
6		2.21.3 Unless otherwise specified in the SCC, the warranty shall remain valid for Twelve (12) months after the Goods, or any portion thereof as the case may be, have been delivered to and accepted at the final destination indicated in the SCC, or for Eighteen (18) months after the date of shipment from the port or place of loading in the country of origin, whichever period concludes earlier.	Request to amend as 12 months from installation or 15 months from shipment	Clarified and retained.
7		GCC 2.27.1 The maximum amount of penalty shall be 10%	Request to amend as - The maximum amount of penalty shall be 5%	Clarified and retained.
M/s Metrohm India Pvt. Ltd				
1	Chapter 4 Technical specification point number 01	Main Instrument It is mentioned that "The Ion Chromatograph system shall be completely PC based with data acquisition and software-controlled bench top system consisting of high-pressure pump, sample injector, detectors, columns, with manual and auto injection facility for simultaneous detection of anions, cations and Lanthanides. It shall be capable of performing analysis under suppressed or non-suppressed mode conductivity measurements"	We can provide two systems one for anion and one for cation and lanthanides. The simultaneous detection for anions, cation, transition metals (Any 2 are possible in a dual configuration for simultaneous analysis)	Accepted with modification The word 'simultaneous' is removed from the point 1.
2	Chapter 4 Technical specification point number 02	Pump Flow rate range: 0.0 to 5 mL/min or better range. Flow rate accuracy or precision: 0.1% or better	Pump In the pump request to change as following Flow rate range: 0.01 to 5 mL/min or better range. The pump should be upgradeable with 20 ml/min flow rate or more Flow rate accuracy precision/reproducibility: 0.1% or better	Accepted with modification The word 'reproducibility' is added to point 2iii)
3	Chapter 4 Technical specification point number 04	Conductivity detector Electronic noise level ± 1 nS or less than that Cell drive: in the 1- 10 KHz range	Conductivity detector Electronic noise level ± 1 nS / < 0.1 nS at 1 μ S/cm Cell drive: in the 1- 10 KHz range - Please clarify	Not accepted and clarified. It will make the specification more restricted to the bidders.

4	Chapter 4 Technical specification point number 06	UV Visible detector Wavelength range 190-900 nm Post column derivatization automation module with necessary switching valves and other required accessories	UV Visible detector Please clarify single wavelength or multiwavelength is required if second one is required, please suggest to add this line. The detector should be of variable wavelength type with up to 8 or more variable wavelengths and request to change PCR as Post column derivatization module with necessary accessories.	Clarified and accepted with modification 'PCR as Post column derivatization module with necessary accessories' part is added to point 6 v)
5	Chapter 4 Technical specification point number 08	Autosampler The autosampler vial should have a 2 to 10 ml range of vial capacity	Autosampler The autosampler vial should have 10 ml range of vial capacity. (It will help to do multiple injection from a single sample to check repeatability of results)	Modified as per the requirement. Point number 8iii) is modified by keeping 2 to 10 ml range. Otherwise, it will make the specification more restricted to the bidders.
6	Chapter 4 Technical specification point number 11	Eluent organisation tray: Shall house 8 nos 2L PP/PTFE bottles for the use.	Eluent organisation tray: Shall house 2L PP/PTFE/Glass bottles for the use.	No change required.

Note: All other specifications in the bid document remain unchanged. The revised specification is attached with the minutes.

Technical specifications for Ion Chromatography system

1) The Ion Chromatograph system shall be completely PC based with data acquisition and software-controlled bench top system consisting of high-pressure pump, sample injector, detectors, columns, with manual and auto injection facility for detection of anions, cations and Lanthanides. It shall be capable of performing analysis under suppressed or non-suppressed mode conductivity measurements.

2) Pumps: -02 Nos

- i) Software-controlled high-pressure pump system with microprocessor-controlled and serial dual pistons
- ii) Flow rate range: 0 to 5 mL/min or better range
- iii) Flow rate accuracy or precision or reproducibility: 0.1% or better
- iv) Pressure Ripples/Pulsation <1% or = 1 %
- v) Pressure Range: 0 to 5000 psi
- vi) Built-in Leak Sensor/ detection and degasser system if any
- vii) if needed, must also provide the required gas cylinders with required purity (2 quantity) and a proper gas line setup for the successful operation of the IC systems.

3) Injector: -02 Nos.

- i) Software-controlled six-port injector valves.
- ii) It should be at least one of the 10/ 20/ 50/ 100/ 250 μ L sample loops

4) Conductivity detector: -02 Nos.

- i) Thermostated micro-flow cell conductivity block
- ii) Resolution: <5 pS/cm
- iii) Conductivity measurement range: 0 to 15000 μ S/cm or better
- iv) electronic noise level \pm 1 nS or less than that
- v) Cell temperature range: 20 to 50° C
- vi) Cell drive: in the 1- 10 KHz range

5) Suppressor: (Number as per the requirement)

- i) Suppressor should be of packed bed type with high loading and high back-pressure (at least 350 psi or more) tolerance with continuous regeneration or single membrane based suppressors with infinite capacity, lowest dead volume, without switchover.
- ii) vendors to furnish data for loading capacity of suppresser in moles/min, void volume, back pressure tolerance.
- iii) Attachment for regeneration of suppressor externally with controllable flow rate (If applicable).
- iv) Suppressor should be compatible with 100% eluent.
- v) At least 5 years warranty on suppressors should be provided along with manufacturers certificate indicating the warranty.

6) UV-Vis Detector for lanthanum determination: -01 No.

- i) The detector must contain Deuterium lamp (UV) and Halogen lamp (VIS) or any other suitable lamp
- ii) Wavelength Range 190-900 nm
- iii) The flow path/cell must be composed of PEEK.
- iv) Wavelength accuracy: 5 nm or better
- v) Post column derivatization automation module with necessary switching valves and other required accessories or as Post column derivatization module with necessary accessories should be supplied.

7) Column: 1 unit of each type.

Housing for column in a thermostated block which should be able to identify the columns and set the optimal operating conditions for column operations

- i) Suitable analysis column for anions (chloride, bromide, phosphate, sulphate, Nitrate, Nitrite, Fluoride, Oxalate, Formate, acetate) detection (at least in ppm level) and quantification. Compatible guard column should be there.
- ii) Suitable column for cations (Li, K, Na, Mg, Ca, NH_4^+ , Aliphatic amines, transition metals like Nickel, Cobalt, Zinc) detection (at least ppm level) and quantification. Compatible guard column should be there.
- iii) Suitable column for lanthanum detection (at least ppm level) and quantification. Compatible guard column should be there.

8) Auto Sampler: -01 Nos.

- i) Autosampler with simultaneous injection facility, the autosampler should be able to communicate with the system and software.
- ii) At least 35 positions of sample vials to be provided.
- iii) The autosampler vial should have a vial capacity at least in the 2 to 10 ml range.
- iv) The complete flow path should be non-metallic.

9) Calibration Standard:

Calibration Standards for Anions like Bromide, Chloride, Fluoride, Nitrate, Formate, Phosphate, and oxalate; Cations like Barium, Calcium, Potassium, Lithium, Magnesium, Manganese, Sodium and Ammonium. Transition metals like Copper, Lead, Nickel, and Zinc; Lanthanides like Ytterbium, Thulium, Dysprosium, Gadolinium, and Samarium, by UV detection, must be provided by the vendor.

10) Mobile phase Purification System: -01 Nos.

- i) It should be a compact bench-top system capable of producing Ultra-Pure Water Type-1 from Potable feed water.

Pre-filtration System: Three-stage pretreatment system with 10, 5 & 1 micron spun filters for removal of suspended particles and organic carbon to take care of the fouling index (FI) in water.

The system should have a suitable pre-treatment facility so that the required feed water quality is obtained in order to produce Type-1 water post RO and deionised filtration, along with UV.

ii) Output Water Quality should be:

1. Rate of production: at least 10 L/hr
2. Dispense flow rate: ≥ 1 L/min
3. Resistivity (Inorganics): ≥ 18.2 M Ω -cm at 25 °C
4. TOC: <5ppb
5. Microorganism: <0.1 CFU/ml with POU fitted
6. pH: Effectively Neutral

iii) Microprocessor - controlled Management Systems for continuous monitoring of water purity

iv) Display: LCD display to provide information 1) on system status and performance parameters, 2) on routine maintenance needs, and 3) on alarms for troubleshooting in the event of system malfunction.

v) It should have a recirculation facility through purification systems to maintain consistent peak water purity.

vi) It should have dual wavelength UV (185 nm/254 nm)

vii) Three-year warranty for the whole system, including RO cartridges

11) Eluent organisation tray: Shall house 8 nos 2L PP/PTFE bottles for the use

- 12) **System Control Software:** Ion Chromatography must be supplied with the state-of-the-art software for data acquisition, control, data processing, calibration, data evaluation, and data visualisation/reporting, etc.
- 13) **Power requirements:** The machine should use a power of 100-240 V AC.
- 14) **Display and data Interface:** Branded PC i7 processor, 16GB RAM, 1TB HDD with Windows 11, latest and compatible MS Office Licensed version of the latest type with 23" LED monitor, keyboards, Mouse suitable for the above IC machine– 2Nos, with a duplex color printer and also include 3 years of onsite warranty on all the systems.
- 15) **Uninterrupted Power Supply (UPS):** Suitable online UPS (5 KVA, 60 min backup) to run the system and any other recommended items or support systems with a 3-year warranty.
- 16) The supplier should provide a suitable placing top for the installation of the instrument.
- 17) **Spares/ Consumables:** Vendors have to give a maintenance chart for all the components that require frequent maintenance, and also include consumables needed for maintenance. Consumables (such as filters, cartridges, syringes, filters, vials, etc.) for running at least 3000 samples should be included in the bid.
- 18) **Support Service:** The company/Vendor should have local service support and a service engineer who must attend the complaint within 48 hrs.
- 19) Should provide at least three documents of successful installation of the ion chromatography equipment (any model) in the Government Organizations/laboratories like IISc/IITs/IISERs/CSIR-laboratories, etc., along with certificates/testimonials/Installation Reports from the customers in the last 5 years.
- 20) **Training of personnel:** Basic/required hands-on training (not less than three days) and troubleshooting training to be imparted to the satisfaction of laboratory officials. All expenditures for imparting training will be at no additional cost.
- 21) After receipt of the item at the purchaser's site, the complete system shall be integrated, installed and commissioned at the designated place (at CSIR-AMPRI Bhopal) by a vendor's representative.
- 22) **Warranty:** i) 3 years comprehensive warranty from the date of completion of installation for the complete system, including replacement of instruments and parts, accessories and labour charges.
ii) For the points 5 v), the warranty conditions will be as mentioned.
iii) The repair/servicing and periodic IPV (Instrument Performance Verification) of the equipment with traceable standards have to be carried out by the manufacturer/supplier free of cost during the entire warranty period or extended warranty period, irrespective of the number of repairs/services.
iv) The manufacturer/supplier shall give a warranty certificate.
- 23) **After-sales service:** Quotation for annual maintenance contract / after-sales service contract should be provided for the next 3 years after the warranty period.
- 24) All the claims made by the vendor must be supported by a brochure or appropriate documents.