



**Tender Document  
For  
Supply and Installation of Gas  
Chromatograph-Mass Spectrometer (GC-MS)**

**CSIR-Central Food Technological Research Institute**

**Mysore- 570 020, Karnataka-India**

**Tel #: 00 91 821 2515440/5447**

**Email: [cosp@cftri.res.in](mailto:cosp@cftri.res.in)/[spo@cftri.res.in](mailto:spo@cftri.res.in)/[sosp@cftri.res.in](mailto:sosp@cftri.res.in)**

**Website: [www.cftri.res.in](http://www.cftri.res.in)**



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 Mysore- 570 020, Karnataka-India  
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**Invitation for e-Bids / Notice Inviting e-Tender**

CSIR- Central Food Technological Research Institute, Mysore, India is one of the premier institute under the aegis of Council of Scientific and Industrial Research, an autonomous body of Department of Scientific and Industrial Research (Government of India), New Delhi. CSIR-CFTRI is a Science and Knowledge based Research & Development (R&D) Organization. It is internationally known for its excellence in Scientific Research in Food Science & Technology.

The Director, CSIR-CFTRI invites e-bids from the Manufacturers and their distributors if any, for the procurement of the following Goods/Services for its day-to-day Research & Development (R&D). The Technical specifications, allied requirements and scope of supply are given in Chapter 4 appended here with.

Sr. No.	Tender No.	Brief Description of item(s)	Quantity	Type of Bid	Mode of Procurement
1	CFTRI/74246/2023	Gas Chromatograph-Mass Spectrometer (GC-MC)	1 No	Single Stage Two Bid	Open Tender

- E-Bids are invited through the electronic tendering process and the Tender Document can be downloaded from the e-Tender Central Public Procurement Portal (CPPP) of Government of India, <https://etenders.gov.in>. The submission of e-Bids will be only through the e-Tender portal <https://etenders.gov.in>. Bids will not be accepted in any other form.
- Interested Bidders may obtain further information from the office of:
 

Controller of Stores & Purchase  
 Central Food Technological Research Institute  
 Mysore- 570 020, Karnataka-India  
 Tel #: 00 91 821 2515440/5447  
 Email: [cosp@cftri.res.in](mailto:cosp@cftri.res.in)  
 Website: [www.cftri.res.in](http://www.cftri.res.in)
- The prospective bidders should adhere to deadlines specified in Tender corresponding to this Tender on e-Tender portal <https://etenders.gov.in>.
- (a) A Pre-Bid Conference (PBC) will be held as mentioned below

	Date	Time in hours (IST)	Venue
Pre-Bid Conference	Pre Bid Conference is scheduled on 30-Oct-2023 at 11.00am at CSIR-CFTRI, Mysore (By person/Online)		

Bidders desirous of attending Pre-bid meeting are required to provide the following details: -

1. Prospective Bidders Name & address
2. Name, designation & mobile number of the representative (s) attending the meeting.
3. E-mail ID to which the meeting invitation to be sent.
4. Pre-bid queries, if any.

The above information should be sent by e-mail to [cosp@cftri.res.in](mailto:cosp@cftri.res.in) / [spo@cftri.res.in](mailto:spo@cftri.res.in) / [sosp@cftri.res.in](mailto:sosp@cftri.res.in) on or before 2.00pm of 27-10-2023

(b) No Queries, suggestions or representation made after the PBC will be entertained. Changes incorporated to the bidding document subsequent to PBC shall be treated as amendment to the bidding document and will be hosted in the CPP Portal/CFTRI Website [www.cftri.res.in](http://www.cftri.res.in)

(c) The Prospective bidders are requested to take cognizance of the amendments if any, prior to submission of the bid which will be hosted on CSIR-CFTRI Website and CPP Portal before formulating and submitting the bids.

5. The Bid prepared by the Bidder shall include the following:

<b>Bid Security (BS) / Earnest Money Deposit (EMD)</b>	
a)	The amount of Bid Security/EMD shall be (a) In case of Indigenous Bidder: Rs.1,50,000/- [Rs. One Lakh Fifty Thousand Only]  The Bid Security/Earnest Money Deposit shall be deposited through Bank Guarantee/Demand Draft/FDR issued by any scheduled bank in India drawn in favour of "The Director, CSIR-CFTRI, Mysore". The original Bid Security/EMD must be delivered to address mentioned at Sl. No.2 above before closure of bid submission date and time as mentioned in "SL.NO -6 failing which, the bid shall be summarily rejected."  For further details, refer Clause No.1.16 of standard Tender document uploaded in CFTRI website
OR	
b)	Bid Security/EMD is <u>NIL</u> if the Bidder is claiming exemption as per provisions specified in the Tender document. The bidder may furnish/submit BID SECURING DECLARATION as per FORMAT specified in Chapter-8, Annexure-B in lieu of EMD/Bid Security The Bid Security Declaration in the name of "The Director, CSIR-Central Food Research Institute, Mysore" to be part of the Technical Bid, without which the bid shall be rejected.
c)	<a href="#">For further details on the above, refer Tender document.</a>
d)	Forms as specified in Chapter No.8

6. The Schedule for Submission of e-Bids and Opening of e-Bids is as follows:

<b>Last Date &amp; Time of Submission of e-Bid</b>		<b>Date and Time of Opening of e-Bid</b>	
Date	Time (IST)	Date	Time (IST)
21-11-2023	14:00 Hrs	22-11-2023	14:30 Hrs

7. (a) In case of agents quoting in offshore procurements, on behalf of their principal manufacturers abroad, one agent cannot represent two manufacturers or quote on their behalf in a particular tender enquiry. One manufacturer can also authorize only one agent/ dealer. There can be only one bid from the following:

i)	The Principal manufacturer directly or through one Indian agent on their behalf; and
ii)	Indian/foreign agent on behalf of only one principal.

(b) Foreign Bidders must disclose the name and address of Indian agent and representative in India and Indian bidder must disclose their foreign principal or associates.

(c) If bidder is Indian Agent of Foreign Principal, the following instruction shall be complied and as amended from time to time as on the date of issue of Tender:

i)	The Bidder shall comply with restrictions under Rule 144(xi) of the GFR 2017 related to restrictions on participation of Foreign Bidders and their Authorised Indian Agent/Dealer in terms of Order No.P-45021/112/2020-PP(BE-II) (E-43780) dated 24-Aug-2020 of the Ministry of Commerce and Industry, Department for Promotion of Industry and Internal Trade, as amended from time to time as on the date of issue of Order.
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8. A. CSIR-CFTRI is a Public Funded Research Institute under Department of Scientific & Industrial Research, Government of India and concessional Custom duty @ 0/5.15% is applicable for the goods purchased for Research purpose vide Government of India vide Notification No.51/96–Customs dated 23-July-1996, as amended from time to time.
- B. CSIR-CFTRI is not eligible to issue any GST concessional rate certificate. GST @ prevailing rate is applicable. Hence, bidder may submit their bid accordingly.
9. The bids failing to comply the following clauses will be summarily rejected.
- (a) The bidders proposing to supply finished products directly/indirectly from Bidders of Countries sharing the land border with India should submit copy of registration with the Ministry of Home Affairs and Ministry of External Affairs.
- (b) If the products supplied are not from Bidders of Countries sharing Land border with India, the Bidder should enclose a declaration
- (c) The debarment of a Bidder/Vendor in this tender, if any, is reciprocal of that Principal's Country, if it is Import.
10. Bidders are requested to refer CSIR-CFTRI website [www.cftri.res.in](http://www.cftri.res.in) for Other General Tender's Terms and Condition which are also an integral part of this tender. [Path: Home Page → Tender → Standard Tender Document (Scrolling Text)]
11. The Director, CSIR-CFTRI, Mysore India reserves the right to accept or reject any bid or accept all bids either in part or in full or to split the order, or to annul the bidding process without assigning any reasons thereof.

Controller of Stores & Purchase  
For and on behalf of CSIR

## General Instructions to Bidders: -

01. For participation in e-procurement all bidders (including Foreign bidders) need to enroll themselves on the CPP Portal (<https://www.etenders.gov.in>). Only enrolled/registered bidders with the said portal shall be allowed to participate in the e-tendering process.
02. Tender Documents may be downloaded from Central Public Procurement Portal <https://www.etenders.gov.in>. Aspiring Bidders who have not enrolled/ registered in e-procurement should enroll/ register before participating through the website <https://www.etenders.gov.in>. The portal enrolment is free of cost. Bidders are advised to go through instructions provided at 'Instructions for online Bid Submission'.
03. Tenderers can access tender documents on the website (For searching in the NIC site <https://www.etenders.gov.in>, kindly go to Tender Search option, select tender type and select 'Council of Scientific and Industrial Research' in organization tab and select 'CFTRI-Mysore-CSIR' in department type. Thereafter, Click on "Search" button to view all CSIR-CFTRI, Mysore tenders). Select the appropriate tender and fill them with all relevant information and submit the completed tender document online on the website <https://www.etenders.gov.in> as per the schedule. The tender document is available on website [www.cftri.res.in](http://www.cftri.res.in) also.
04. The Bidders should have Java 8 update 231 version-32 bit for uploading the bid in the CPP Portal.
05. CSIR-CFTRI neither operates nor manages the CPP Portal where online bids are submitted and therefore will not be responsible for any technical issues related to bid submission (viz., not being able to upload bid, blank/missing/part documents etc.,). If bid is incomplete on account of these, it will be treated as such and evaluated further. For any technical queries/issues related to online bid submission, Bidders must directly approach support service of CPP Portal as per the details given on their website.

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## CHAPTER - 1

### INSTRUCTIONS TO BIDDERS

For details kindly refer Standard Tender Documents uploaded at CSIR-CFTRI website i.e. [www.cftri.res.in](http://www.cftri.res.in) →Tender

## CHAPTER 2

### CONDITIONS OF CONTRACT

#### A. GENERAL CONDITIONS OF CONTRACT (GCC)

Note: The General Conditions of Contract shall form the part of Purchase Order / Contract.

For details kindly refer Standard Tender Documents uploaded at CSIR-CFTRI website i.e. [www.cftri.res.in](http://www.cftri.res.in) →Tender

#### B. SPECIAL CONDITIONS OF CONTRACT (SCC)

The following Special Conditions of Contract (SCC) shall supplement and / or amend the General Conditions of Contract (GCC). Whenever there is a conflict, the provisions herein shall prevail over those in the GCC.

Sl.No.	GCC Clause Ref	Condition
1	GCC 2.1.1(l)	The Purchaser is: The Director  CSIR-Central Food Technological Research Institute Mysore- 570 020, Karnataka-India Tel #: 00 91 821 2515440/5447 Email: <a href="mailto:cosp@cftri.res.in">cosp@cftri.res.in</a> Website: <a href="http://www.cftri.res.in">www.cftri.res.in</a>
2	GCC 2.1.1(m)	The Final Destination is:  CSIR-Central Food Technological Research Institute Mysore- 570 020, Karnataka-India Tel #: 00 91 821 2515440/5447 Email: <a href="mailto:cosp@cftri.res.in">cosp@cftri.res.in</a> Website: <a href="http://www.cftri.res.in">www.cftri.res.in</a>
3	GCC 2.13.1	Performance Security The amount of the Performance Bank Guarantee shall be 10% of the contract value to be submitted within 21 days from the date of PO/order acceptance valid up to 60 days after the date of completion of performance obligations including warranty obligations.
4	GCC 2.16.3	Delivery - Mode of Transportation/Shipment
		a) The mode of transportation shall be by Road.
		b) DELIVERY TERM: FOR CSIR-CFTRI, Mysore/CIP in case of imported goods however custom clearance and inland transportation shall be responsibility of the bidders.
		c) Delivery period 10-12 weeks from the date of acceptance of Purchase Order

5	GCC 2.17.1	<p>Insurance</p> <p>The Insurance shall be for an amount equal to <b>110%</b> of the invoice value of the contract from “warehouse to warehouse (final destination)” on “all risk basis” including strikes, riots and civil commotion till completion of installation and commissioning.</p>										
6	GCC 2.21.3	<p>The period of validity of the Warranty for this tender shall be as below:</p> <p>Standard Warranty or 1 year minimum from the date of satisfactory, installation and acceptance of the equipment.</p>										
7	GCC 2.22.1	<p><b>Payment Terms</b></p> <p>The method and conditions of payment to be made to the Supplier under this Contract shall be as follows:</p> <table border="1"> <tr> <td></td> <td>Payment for Goods and Services supplied from within India</td> </tr> <tr> <td>(a)</td> <td>I) 90% of the contract price shall be paid on Delivery of the Goods, Installation &amp; commissioning, Demonstration and satisfactory acceptance of the items &amp; upon submission of the documents specified in GCC/SCC and the acceptance certificate issued by the End User, II) balance 10% against completion of training and submission of Performance Security to cover 60 days beyond warranty obligations. issued by any Scheduled Commercial bank in the form of BG/Demand Draft/Bankers' Cheque/FDR</td> </tr> <tr> <td>(b)</td> <td>E-Payment: All payments, CSIR-CFTRI prefers to make Electronic Transfers (NEFT/RTGS) through scheduled bank</td> </tr> <tr> <td>(c)</td> <td>All payments due under the Contract shall be paid after deduction of statutory levies at source (like TDS, Income Tax, TCS etc.), wherever applicable.</td> </tr> </table>		Payment for Goods and Services supplied from within India	(a)	I) 90% of the contract price shall be paid on Delivery of the Goods, Installation & commissioning, Demonstration and satisfactory acceptance of the items & upon submission of the documents specified in GCC/SCC and the acceptance certificate issued by the End User, II) balance 10% against completion of training and submission of Performance Security to cover 60 days beyond warranty obligations. issued by any Scheduled Commercial bank in the form of BG/Demand Draft/Bankers' Cheque/FDR	(b)	E-Payment: All payments, CSIR-CFTRI prefers to make Electronic Transfers (NEFT/RTGS) through scheduled bank	(c)	All payments due under the Contract shall be paid after deduction of statutory levies at source (like TDS, Income Tax, TCS etc.), wherever applicable.		
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8	GCC 2.27.1	<p><b>Liquidated Damages (LD)/Penalty</b></p> <table border="1"> <tr> <td>(a)</td> <td>As time is the essence of the contract, Delivery period mentioned in the Purchase Order should be strictly adhered to, otherwise will have to forfeit the EMD/PS and also LD clause will be applicable / enforced.</td> </tr> <tr> <td>(b)</td> <td>If the Supplier fails to Supply, Install and Commission the system as per specifications mentioned in the order within the due date, the Supplier is liable to pay LD/penalty of 0.5% of order value per week of delay in supply/installation subject to maximum of 10% beyond the due date. Such money will be deducted from any amount due or which may become due to the Supplier</td> </tr> <tr> <td>(c)</td> <td>CSIR-CFTRI reserves the right to cancel the Purchase Order in case the delay in supply is more than 10 weeks. Penalties, if any, will be deducted from the EMD/PS</td> </tr> <tr> <td>(d)</td> <td>The maximum amount of penalty shall be 10%</td> </tr> <tr> <td>(e)</td> <td>The LD/Penalty shall be levied on the delivered price of the delayed Goods or unperformed Services or Contract Value.</td> </tr> </table>	(a)	As time is the essence of the contract, Delivery period mentioned in the Purchase Order should be strictly adhered to, otherwise will have to forfeit the EMD/PS and also LD clause will be applicable / enforced.	(b)	If the Supplier fails to Supply, Install and Commission the system as per specifications mentioned in the order within the due date, the Supplier is liable to pay LD/penalty of 0.5% of order value per week of delay in supply/installation subject to maximum of 10% beyond the due date. Such money will be deducted from any amount due or which may become due to the Supplier	(c)	CSIR-CFTRI reserves the right to cancel the Purchase Order in case the delay in supply is more than 10 weeks. Penalties, if any, will be deducted from the EMD/PS	(d)	The maximum amount of penalty shall be 10%	(e)	The LD/Penalty shall be levied on the delivered price of the delayed Goods or unperformed Services or Contract Value.
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(e)	The LD/Penalty shall be levied on the delivered price of the delayed Goods or unperformed Services or Contract Value.											
9	GCC 2.34.1	<p><b>Applicable Law / Jurisdiction</b></p> <p>The place of jurisdiction is Mysore, India.</p>										
10	GCC 2.35.1	<p>For notices, the Purchaser's address is The Director Attention: The Controller of Stores &amp; Purchase CSIR-Central Food Technological Research Institute Mysore- 570 020, Karnataka-India Tel #: 00 91 821 2515440/5447 Email: <a href="mailto:cosp@cftri.res.in">cosp@cftri.res.in</a></p>										

### CHAPTER 3

(To be filled by the bidder and enclosed with the Technical Bid)

#### SCHEDULE OF REQUIREMENT

The Schedule of Requirement must clearly specify the time frame required (Schedule) for delivery of goods and services to be completed by the bidder (in reference to Scope of Supply given in Clause-4.2 of Chapter-4) if the Contract is awarded for the offer / proposal submitted by the bidder in response to this Tender.

**A) Delivery Schedule:**

Sr. No.	Brief Description of Goods and Services	Quantity & Unit	Delivery Schedule
1	Gas Chromatograph-Mass Spectrometer (GC-MS)	1 No	

**B) Period of delivery shall start from** : \_\_\_\_\_

**C) Term of Delivery / Delivery Term (named port of shipment or named place of delivery:**

Goods from India	
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**D) Scope of Supply:**

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**E) Time frame required for conducting installation, commissioning of the equipment, acceptance test, training, etc. after the arrival of consignment or before dispatch of equipment:**

Sr. No.	Activity	Time Frame
1	Site Preparation (if required)	
2	Installation & Commissioning	
3	Acceptance Test	
4	Training (Location, No. of persons, period of training, nature of training)	
5		

**Place** : \_\_\_\_\_ **Signature of the Bidder** : \_\_\_\_\_

**Date** : \_\_\_\_\_

**Notes for Bidders:**

(1)	The delivery schedule shall clearly indicate the time period within which the successful bidder must deliver the consignment in full from the date of establishment of LC or from the date of contract etc. It should also indicate separately the time period desired for installation and commissioning of the equipment after arrival of the consignment at the premises of the Purchaser.
(2)	The date or period for delivery should be carefully specified, taking into account the implications of delivery terms stipulated in the Instructions to Bidders pursuant to the Incoterms rules (i.e., FCA/CIP terms—that “delivery” takes place when goods are delivered to the carriers), and the date prescribed herein from which the delivery obligations start (i.e., notice of award, contract signature, opening or confirmation of the letter of credit.



## Chapter 4

### Specifications and Allied Technical Details for Supply and Installation of Gas Chromatograph-Mass Spectrometer (GC-MS)

4.1 End Use: Research and Development

#### **4.2 Detailed Technical Specifications for Gas Chromatograph-Mass Spectrometer (GC-MS)**

A) Basic unit as well as other major components from the same manufacturer

##### **1. Gas Chromatograph: Qty.- 1 Number**

- 1.1. Gas Chromatograph with Capillary Flow / Programmable Pneumatic Control /Advanced Flow for simultaneous programming of pressure, temperature and flow and fully computer controlled injectors, Oven, Detector, Electronic Pneumatics Control and related electronic components
- 1.2. Fully functional touch screen to monitor and control the real time status of the Gas Chromatograph.
- 1.3. Setting of method parameters & control through application software as well as through touch screen of the instrument
- 1.4. Large Column Oven, which is capable of holding capillary columns of various lengths up to 100 meters and 0.05 mm to 0.53 mm internal diameter
- 1.5. Oven Temperature range from ambient to 450 °C
- 1.6. Temperature set point resolution 0.1 °C
- 1.7. Oven Cool Down Time: 450 °C to 50 °C within 4 minutes
- 1.8. Retention time repeatability:  $\leq 0.0008$  minutes
- 1.9. Peak Area repeatability:  $\leq 1$  % RSD (or) better
- 1.10. Column oven should have possibility to program minimum 20 temperature ramps (or) more
- 1.11. Maximum Oven heating rate: 110°C per minute (or) more
- 1.12. Maximum Programming time of a sample run: 999 minutes
- 1.13. The system should have back flush capability and septum purge facility, user settable purge flow rate and time to eliminate high-boiling co-extractives, undesired, contaminant compounds.
- 1.14. Inbuilt feature of overheat protection, diagnostics and comprehensive self-testing facility, column oven power must turn off automatically when the lid/door is opened, automatic carrier gas shut off and inlet pressure drops significantly.
- 1.15. Built in Memory protection during power failure

##### **2 & 3. Injectors- Qty. - 2 Numbers**

B) Both injection ports should be independently temperature controlled

- 2.0. Multi-Mode Inlet with split/split less injection & back flush facility (or) Programmable Split/Splitless Capillary Injector (or) Programmable Temperature Vaporization Injection Unit: Qty-1 Number
  - 2.1. Two-ramps temperature programmable inlet with large volume injection capability of 50  $\mu$ L sample. The user selectable flow or pressure change option through software, Injectors facilitate easy maintenance and septa, liner changes
  - 2.2. Compatible for all capillary columns having dimension of 0.05 to 0.53 mm internal diameter
  - 2.3. Settable pressure range from 0 to 100psi with set point resolution of 0.01 psi from 0 to 100 psi range
  - 2.4. Split ratio range: 0 to 9,999.9:1 (or) better, suitable for all capillary columns
  - 2.5. Maximum operating temperature up to 450°C
  - 2.6. Control of split flow: From 5 to 1250 mL/min for helium
  - 2.7. Purge flow: settable up to 30 mL/min
  - 2.8. Efficient gas saver to reduce gas consumption during standby without affecting performance.
- 3.0. Split/splitless Injector: Qty. - 1 Number
  - 3.1. The user selectable flow or pressure change option through software, Injectors facilitate easy maintenance and

septa, liner changes

- 3.2. Compatible for all capillary columns having dimension of 0.05 to 0.53 mm internal diameter
- 3.3. Settable pressure range from 0 to 150 psi with set point resolution of 0.01 psi from 0 to 100 psi range
- 3.4. Split ratio range: 0 to 9999.9:1 (or) better suitable for all capillary columns
- 3.5. Maximum operating temperature up to 400°C
- 3.6. Control of split flow: From 5 to 1250 mL/min for helium
- 3.7. Purge flow: Settable up to 30 mL/min

#### **4. Auto sampler: Qty. - 1 Number**

- 4.1. Sample injection method: Liquid sample injection through micro syringe
- 4.2. Capable to fit in both injector ports comfortably
- 4.3. Facilitates for easy removal and mounting of Auto sampler assembly for manual and SPME injections
- 4.4. Number of sample vials: Capable of accommodating 100 vials or more at a time
- 4.5. Vial capacity: 2 mL
- 4.6. Washing Solvent: At least 2 different washing solvents or more in 4 ml vials
- 4.7. Sample injection volume: Selectable between 1 and 10 microliter or more should be available
- 4.8. Injection Speed: Normal/slow/fast/variable options
- 4.9. Syringe sizes: Should accommodate 1 µL, 5 µL, 10 µL volume micro syringes
- 4.10. Injection Reproducibility: 0.3 % RSD (or) better
- 4.11. Viscosity Delay: 0 to 6 seconds or more

#### **5. Mass Spectrometer: Qty. - 1 Number**

- 5.1. Electron impact ionization with automatic tuning facility.
- 5.2. The Ion Source assembly should be located in front (or) side access type for easy, quick removal and maintenance. The ion source dismantling, cleaning and re-assembly must be user friendly.
- 5.3. Capable to collect SIM data and full scan data in a single acquisition/run simultaneously
- 5.4. Mass analyzer type: Quadrupole rods with contamination removing facility by pre-rod/pre-filter/ Pre-heater/Entrance lens/ any other proven means for noise reduction & should be maintenance-free.
- 5.5 The mass spectrometer must use an ion source where the metallic parts are constructed from inert material.
- 5.6. Sensitivity:** Through EI Full Scan Injection of 1 µL of 1 pg/µL concentration of octafluoronaphthalene (OFN) should produce 1500:1 (or) better Signal to Noise (S/N) performance for m/z 272 ion when scanning between the range of m/z 50 - 300
- 5.7. Mass Range: m/z 1.5 to 1000
- 5.8. Electron Ionization Voltage: 10-100 eV (or) better range
- 5.9. Emission Current: 5 µA to 200 µA (or) better range
- 5.10. GC Interface/Transferline Temperature: 100°C -350°C (or) better range
- 5.11. Ion Source Temperature: 150°C - 300°C (or) better range
- 5.12. Must be unit mass resolution
- 5.13. Mass Axis Stability: ± 0.1 amu/48 hours
- 5.14. Detector: High Sensitivity, long life Electron Multiplier
- 5.15. Electronic Dynamic Range: 10<sup>6</sup>
- 5.16. Scan Rate: up to 12,500 amu/second (or) better
- 5.17. Number of SIM Groups/Run: Minimum 30 groups (or) more & Number of ions/Group: Minimum 30 ions (or) more.
- 5.18. Pumping System: High efficient turbo molecular pump with the capacity of 255 L/sec (or) higher and Suitable Auxiliary pump/ Foreline roughing pump for initial Vacuum build-up support **Qty. - One each**

#### **6. Mass Spectral Library**

- 6.1. NIST Mass Spectral Library Latest Version original software pre-loaded on Data Station and perpetual licensed backup CD Compatible with operation software (MS Win 10 and above) - **Qty. - One number.**

## **7. Data Acquisition System**

7.1. A 64 bit MS Windows based Software Should Provide Single Point Control of the whole system including Gas Chromatograph, Mass Spectrometer, injectors and additional accessories like headspace sampler assembly might be annexed in future in the instrument.

7.2. Capable of System Auto Tuning with tuning standards and air, water checks, and vacuum leak checks

7.3. Application software must be capable of seamless multi-tasking of accurate and reproducible Integration, Deconvolution, Multilevel Calibration, Baseline correction, Background subtraction, Spike recoveries, calibration verification, Qualitative Analysis, Quantitative Analysis, Customizable report formats

7.4. Software should have provision for calculation of retention indices, Automatic adjustment of retention time (AART) function, and Retention time locking (RTL)

7.5. Flexible report format (i.e.) for Acquisition method, Chromatogram, Mass Spectrum, Peak table, Peak area, Peak area sum Percentage, Qualitative reports, Quantitation reports, calibration curve, Status Log, texts, graphics, post run analysis facility with flagging.

7.6. Complete Software must capable of controlling the vacuum system with Auto Start-up / Shut-down and vacuum protection against Power Failures.

7.7. Software must be working with latest Windows 10 operating system. If any upgrade in Windows OS, OEM should provide compatible software upgrade free of cost in future, for a period of 10 years.

## **8. Data Processing and Storage System**

8.1 A branded Computer (HP/Dell/Lenovo) with configuration CPU Intel i7 or better, 16 GB RAM, 512 GB SSD and 1 TB HDD with preloaded data system, Additional LAN Card, MS Windows 10 Professional 64 Bit upgradeable to MS Windows 11, with media and license, 27 inch Full HD/LED (1080p) 1920 x 1080 monitor- **Qty. - One number.**

## **9. Gas Cylinder and Gas, Regulator and Purification panel-1set**

9.1. High pressure Carbon Steel cylinder with 99.9999% ultra-high purity Helium gas capacity 10 cubic Meters (water capacity 50 Liters) – **Qty. - One number.**

Cylinder should be ISI marked confirming to IS 7285 flat bottom fitted with valve as per IS:3224 complete with neck ring and cap painted as specified under Gas Cylinder Rules 1981. Gas cylinder should be supplied with hydraulic test certificate and explosive certificate from Chief Controller of Explosives, Nagpur.

9.2. Two Stage Stainless Steel Regulator with steel diaphragm for helium gas (Matheson or Swagelok brand) – **Qty. - One Number**

9.3. Complete set of MS Powder coated 200 LPM capacity gas purification panel for helium gas containing regeneratable silica gel and Molecular sieves filters to remove the moisture and traces of moisture from Helium gas and Oxytrap filter to remove Oxygen from the carrier Helium gas line – **Qty. - One set**

## **10. Maintenance Tool kit**

Complete tool kit contains necessary tools for the periodic maintenance of Gas Chromatograph, Mass Spectrometer and Vacuum pumps - **One set.**

## **11. Capillary Columns**

Low bleed, capillary columns with the dimensions of 30 m X 0.25 mm I.D X 0.25 µm of following:

11.1. Column contains 5% Phenyl / 95% Dimethyl Polysiloxane, MS certified - **Two Numbers**

11.2. Column contains of 100% Polyethylene Glycol, MS certified - **Two Numbers**

11.3. Column contains 70% Cyanopropyl Polysilphenylsiloxane (or) equivalent Chemistry based column - **Two Numbers**

## **12. Essential Spares & Consumables requirement to be included with**

- 12.1. Injector septa: **100 Nos.**
- 12.2. Vials, 2 mL capacity: **200 Nos.**
- 12.3. Auto sampler septa and caps: **200 Nos.**
- 12.4. Auto Sampler Micro Syringe 10 µL capacity: **6 Nos.**
- 12.5. Auto Sampler Micro Syringe 1µL capacity: **2 Nos.**
- 12.6. Vacuum pump oil: **1 Ltr.**
- 12.7. Liners for split operation: **20 Nos.**
- 12.8. Liners for splitless operation: **10 Nos.**
- 12.9. Split vent traps: **6 Nos.**
- 12.10. Necessary mass calibration solutions (with certificate of analysis) - **1 Set**
- 12.11. Ferules for 0.25mm I.D column (MS side): **20 Nos.**
- 12.12. Ferules for 0.25mm I.D column (GC side): **20 Nos.**
- 12.13. Column nuts (GC Side): **5 Nos.**
- 12.14. Column nuts (MS Detector side): **5 Nos.**
- 12.15. Filament: **02 Nos.**
- 12.16. Brass/stainless steel ferules (for GC plumbing): **20 Nos.**
- 12.17. Copper tube with connector, (for GC plumbing): **5 Meters length.**
- 12.18. Copper tube cutter: **1 No.**

## **13. Training**

The principal supplier/ Authorized Service Provider has to impart on-site operational training at the time of installation to CSIR-CFTRI staff followed by operational training and application training analysis on operation, maintenance, method development, software training, data interpretation (qualitative and quantitative) at the installation site including application for analysis of food samples including oils, flavours, VOCs and Pesticides.

## **14. Warranty**

Comprehensive warranty with spares minimum for 1 year from the date of complete installation & acceptance of the instrument should be covered. Post warranty AMC charges to be mentioned in the Quote for a period of FIVE years.

## **15. General conditions of supply:**

1. The supplier/manufacture should have Indian agent to provide after sales service.
2. The principal should provide a certificate that they will provide the spares in future for at least ten years, from the date of satisfactory installation.
3. The bidders should provide a list of minimum of three installations in Government/reputed Research Organizations, with complete address including E-Mail and Phone Numbers.

- 4.3 Scope of Supply and incidental works:** Scope of Supply includes the following:
- I. Supply of the equipment / system along with the accessories.
  - II. Installation, Commissioning and Acceptance by the end user
  - III. Training as specified in tender
  - IV. On site comprehensive Warranty as specified in SCC
  - V. Annual Maintenance Contract / Maintenance Support as specified in BoQ
  - VI. Delivery Schedule as specified in SCC

**4.4.2 Manufacturer's Inspection Certificate**

After the goods are manufactured and assembled, inspection and testing of the goods shall be carried out at the supplier's facility by the supplier, prior to shipment to check whether the goods are in conformity with the technical specifications. Manufacturer's test certificate with data sheet shall be issued to this effect and submitted along with the delivery documents. The purchaser reserves the options to be present at the supplier's premises during such inspection and testing.

**4.4.3 Installation, Commissioning and Acceptance Test**

The acceptance test will be conducted by the Purchaser, their consultant or other such person nominated by the Purchaser at its option after the equipment is installed at Purchaser's site in the presence of supplier's representatives. The acceptance will involve trouble free operation. There shall not be any additional charges for carrying out acceptance test. No malfunction, partial or complete failure of any part of the equipment is expected to occur. The Supplier shall maintain necessary log in respect of the result of the test to establish to the satisfaction of the Purchaser, the successful completion of the test specified.

On the event of the ordered item failing to pass the acceptance test, a period not exceeding two weeks will be given to rectify the defects and clear the acceptance test, failing which, the Purchaser reserve the right to get the equipment replaced by the Supplier at no extra cost to the Purchaser.

Successful conduct and conclusion of the acceptance test for the installed goods and equipment shall also be the responsibility and at the cost of the Supplier.

The acceptance tests at the final destination include the following:

a)	
b)	

**4.5 Training**

1)	Location	
2)	Number of persons	
3)	Period of Training	
4)	Nature of Training	

## CHAPTER-5

### Price Schedule forms

Bidder Should quote as per the BOQ Format Only as uploaded in <https://etenders.gov.in> along with Tender documents

CSIR-CFTRI is a Public Funded Research Institute under Department of Scientific & Industrial Research, Government of India and concessional Custom duty @ 0/5.15% is applicable for the goods purchased for Research purpose vide Government of India vide Notification No.51/96–Customs dated 23-July-1996, as amended from time to time.

**CSIR-CFTRI is not eligible to issue any GST concessional rate certificate. Hence, bidder may submit their bid accordingly.**

## CHAPTER-6

### Qualification Requirements

#### 6.1 Eligibility Criteria

##### a) Legal Valid Entity:

The Bidder shall necessarily be a legally valid entity either in the form of a Limited Company or a Private Limited Company registered under the Indian Companies Act, 1956 or as per rules prevailing in the country of origin/shipment

Bidder may be Joint Venture, Consortium or Association so long as they are formed and registered prior to the bid submission date.

Copy of Certificate of Incorporation issued by Registrar of firms/companies is to be submitted in support of this criterion or as per rules prevailing in the country of origin/shipment

b) In case of Global Tender Enquiry, Indian Agent quoting on behalf of Foreign Principal Supplier should submit a certified copy of an Agreement/Memorandum of understanding (MOU) between both the parties, detailing services to be rendered by the Agency.

c) An undertaking (self-certificate) is to be submitted to demonstrate that the bidder satisfies the bidders' eligibility criteria, as mentioned in ITB Clause 1.1.2 in the form of declaration by the Bidder for Code of Integrity & conflict of interest as per **Chapter-8: Annexure-L**.

d) Declaration by the bidder on letter head that he has not been disqualified or black listed or suspended by any other lab of CSIR or any other Govt. Organization/Govt. of India establishment or suspended by CPPP or GeM portals, in the past 24 months.

#### 6.2 Technical Qualification Criteria

##### Criteria 1 - Experience and Past Performance:

a) The bidder (manufacturer or principal of authorised representative – hereinafter referred simply as 'The Bidder') should have regularly for at least the last 3 years, ending 31st March of the previous financial year (hereinafter called 'The relevant Date'), manufactured and supplied (/erected/ commissioned Gas Chromatograph-Mass Spectrometer(GC-MS) with the same or higher specifications having/with Gas Chromatograph-Mass Spectrometer(GC-MS) parameters (herein after called 'The Product'). The bidder should submit the manufacturer authorisation form as appended in Chapter-8 and

b) 'The bidder' should have manufactured and supplied (erected/commissioned) at least TWO numbers (herein after referred as 'The Qualifying Quantity') of 'The Product' in at least one of the last three years ending on 'The relevant Date.'

**Criteria 2 - Capability- Equipment & manufacturing Facilities: -NA**

'The bidder' must have an annual capacity to manufacture and supply (/erected/ commissioned) at least NA (The Qualifying Quantity)

Note: In case of multiple products in a tender, this criterion shall be applicable product wise. For example, in case of Printing Paper of different specifications/sizes, it shall be applicable to quantity of paper manufactured and supplied specification/size wise.

**6.3 Financial Qualification Criteria**

- a) The average annual financial turnover of 'The bidder' during the last three years, ending on 'The relevant Date', should be at ₹.....NA..... as per the annual report (audited balance sheet and profit & loss account) of the relevant period.
- b) A copy of the annual report (audited balance sheet and profit & loss account) of the relevant period, duly authenticated by a Chartered Accountant/Cost Accountant in India or equivalent in relevant countries, is to be submitted in support of this criterion. NA
- c) The net worth of the Bidder firm (manufacturer or principal of authorized representative) should not be negative on 'The Relevant Date' and also ii) should have not eroded by more than 30% (thirty percent) in the last three years, ending on 'The Relevant Date' (31-03-2023). Self-declaration on letterhead of the company to be provided in support of this. (Documentary evidence or supporting document).

**Note:** In case of Indian Bidders/companies (manufacturer or principal of authorized representative) who have been restructured by Banks in India, under the statutory guidelines, they would be deemed to have qualified the Financial standing criteria considering the institutional financial backing available to them.

**Applicability in Special Cases:**

- a) **Applicability to 'Make in India':**  
Bidders (manufacturer or principal of authorised representative) who have a valid/approved ongoing 'Make in India' agreement/ program and who while meeting all other criteria above, except for any or more of sub-criteria in Experience and Past Performance above, would also be considered to be qualified provided:

i)	their foreign 'Make-in-India' associates meet all the criteria above without exemption, and
ii)	the Bidder submits appropriate documentary proof for a valid/approved ongoing 'Make in India' agreement/program.
iii)	the bidder (manufacturer or principal of authorised representative) furnishes along with the bid a legally enforceable undertaking jointly executed by themselves and such foreign Manufacturer for satisfactory manufacturing, Supply (and erection, commissioning if applicable) and performance of 'The Product' offered including all warranty obligations as per the general and special conditions of contract.

- b) **Authorized Representatives:**  
Bids of bidders quoting as authorised representative of a principal manufacturer would also be considered to be qualified, provided:

i)	their principal manufacturer meets all the criteria above without exemption, and
ii)	the principal manufacturer furnishes a legally enforceable tender-specific authorisation in the prescribed form assuring full guarantee and warranty obligations as per the general and special conditions of contract; and
iii)	the bidder him self should have been associated, as authorised representative of the same or other Principal Manufacturer for same set of services as in present bid (supply, installation, satisfactorily commissioning, after sales service as the case may be) for same or similar 'Product' for past three years ending on 'The Relevant Date'.

- c) **Joint Ventures and Holding Companies:**

Credentials of the partners of Joint ventures cannot be clubbed for the purpose of compliance of PQC in supply of Goods/Equipment, and each partner must comply with all the PQC criteria independently. However, for the purpose of qualifying the Financial Standing Criteria, the Financial Standing credentials of a Holding Company can be clubbed with only one of the fully owned subsidiary bidding company, with appropriate legal documents proving such ownership.

**Note for Bidders:**

a) 'Doctrine of Substantial Compliance':  
The Pre-Qualification Bidding (PQB) and Pre-Qualification Criteria (PQC) are for shortlisting of sources who are competent to perform this contract to ensure best value for money from expenditure of Public Money. This process is neither intended to bestow any entitlement upon nor to create any rights or privileges for the Bidders, by way of overly hair-splitting or viciously legalistic interpretations of these criteria, disregarding the very rationale of the PQB and PQC. Keeping this caveat in view, interpretation by the Purchaser would be based on common usage of terminologies and phrases in public procurement in accordance with the 'Doctrine of Substantial Compliance' and would be final.

b) The Bidder must declare, whether asked or not in a bid document, any previous transgressions of such a code of integrity with any entity in any country during the last three years or of being debarred by any other Procuring Entity. Failure to do so would amount to violation of this code of integrity.

c) In case of agents quoting in offshore procurements, on behalf of their principal manufacturers, one agent cannot represent two manufacturers or quote on their behalf in a particular tender enquiry. One manufacturer can also authorize only one agent/ dealer. There can be only one bid from the following:

i)	The Principal manufacturer directly or through one Indian agent on his behalf; and
ii)	Indian/foreign agent on behalf of only one principal.

d) Along with all the necessary documents/certificates required as per the tender conditions, the bidder should furnish a brief write-up, backed with adequate data, explaining their available capacity (both technical and financial), for manufacture and supply of the required goods/equipment, within the specified time of completion, after meeting all their current commitments.

e) Supporting documents submitted by the bidder must be certified as follows:

i)	All copy of supply/work order; respective completion certificate and contact details of clients; documents issued by the relevant Industries Department/National Small Industries Corporation (NSIC)/ manufacturing license; annual report, etc., in support of experience, past performance and capacity/capability should be authenticated by the person authorised to sign the tender on behalf of the bidder. Original Documents must be submitted for inspection, if so demanded.
ii)	All financial standing data should be certified by certified accountants, for example, Chartered Accountants/Cost Accountants or equivalent in relevant countries; and Indian bidder or Indian counterparts of foreign bidders should furnish their Permanent Account Number.

f) A bidder or any of its affiliates who participated as a consultant in the preparation of the design or technical specifications of the contract i.e. the subject of the bid; cannot participate in the bidding process.

g) Indian agents quoting on behalf of its foreign principal need to submit a copy of the agency agreement with the foreign principal detailing the services to be rendered by them on behalf of the principals, failing which the bid shall not be considered.

(h) Foreign bidders to disclose the name and address of agent and representatives in India and Indian bidder to disclose their foreign principal or associates.



## CHAPTER 7

### Contract Form

For details kindly refer Standard Tender Documents uploaded at CSIR-CFTRI website i.e. [www.cftri.res.in](http://www.cftri.res.in) →Tender

## CHAPTER 8

### Other Standard Forms (To be enclosed as indicated below)

#### TABLE OF CONTENTS

Sl. No.	Name	Annexure
1	Bid Security Form (to be enclosed with the technical bid)	A
2	Bid Securing Declaration. (to be enclosed with the technical bid)	B
3	Bidder Information Form (to be enclosed with the technical bid)	C
4	Bid Form (without disclosure of price)	D
5	Manufacturers' Authorization Form (to be enclosed with the technical bid)	E
6	Performance Statement Form (to be enclosed with the technical bid)	F
7	Service Support Detail Form (to be enclosed with the technical bid)	G
8	Certificate of local content with percentage	I & J
9	Self-Certification ( to be enclosed with technical bid)	L
10	Deviation Statement Form (to be enclosed with the technical bid)	M
11	Performance Security Form (to be submitted on award of Contract)	N
12	Acceptance Certificate Form (to be submitted on award of Contract)	O
13	Check List	

Note: Please refer clause 1.10.1 of the bidding documents for other documents to be attached with the bids/offers

For details kindly refer Standard Tender Documents uploaded at CSIR-CFTRI website i.e. [www.cftri.res.in](http://www.cftri.res.in)→Tender

The Terms and conditions of Standard Tender Documents uploaded at CSIR-CFTRI website i.e. [www.cftri.res.in](http://www.cftri.res.in)→Tender is integral part of this tender.

**CHAPTER-9**

**Check List**

<b>Tender No.</b>	<b>CFTRI/74246/2023</b>	
<b>Sr. No.</b>		
<b>1</b>	<b>Approximate weight of dimension the Consignment</b>	<b>Approximate dimensions of the consignment</b>
<b>2</b>	<b>Indian Customs Tariff No. and HSN No. (ICT &amp; HSN No.)</b>	
<b>3</b>	<b>Country of Origin</b>	
<b>4</b>	<b>Class of Supplier as per Make in India</b>	<b>I / II / III</b>
<b>5</b>	<b>Mode of Shipment By Air / Road</b>	
<b>6</b>	<b>Delivery Term (INCO Term), as the case may be</b>	<b>FoR/CIP</b>
<b>7</b>	<b>Delivery Schedule including Supply, Installation, Commissioning, Training &amp; Acceptance</b>	
<b>a)</b>	<b>Delivery of the Item as per Chapter-4/BoQ [In weeks / Days / Months] from the date of PO</b>	
<b>b)</b>	<b>Installation &amp; Commissioning from the date of Delivery of item [In weeks/Days/Months]</b>	
<b>c)</b>	<b>Training from the date of Installation &amp; Commissioning of item [In weeks/Days/Months]</b>	
<b>8</b>	<b>Installation &amp; Commissioning (if any) inclusive with Quoted Price</b>	
<b>9</b>	<b>Training (if any) at site inclusive with Quoted Price</b>	

10	Payment Term	
11	Currency of Bid/Quotation	
12	Statutory Levies [GST/IGST or any other taxes, duties] % of tax to be mentioned.	
13	Bidder GST No.	
14	Bidder Bank Details along with Cancelled cheque	
15	Insurance Coverage as per GCC/SCC Clause No.2.17.1	
16	Warranty	
17	Agree to submit Performance Security as per GCC/SCC Clause No.2.13.1	
18	Validity of offer as per Tender document	
19	Order to be placed [Full address, Tel #, Fax #, Email Id, Contact Person]	
20	Any other	
21	Whether Total Price quoted as per BoQ/PriceSchedule/List of Deliverables inclusive of tax	(Yes/No) (Price should not be revealed)
22	Certificate of local content with percentage (Annexure I & J)	
23	Self-declaration (Annexure-L), if country of Origin is Foreign, Bidders may provide the details, as per GOI Procurement Policies (DIPP Order No.P-45021/2/2017-PP (BE-II)).	