

Tender Document for the Gas Chromatography-Mass Spectrometry

Competitive bids (Technical and price separately) are invited for the purchase of Gas Chromatography-Mass Spectrometry. Broad specifications of the proposed system are given below. Specifications quoted are essential requirement of this equipment while terms & conditions are mentioned separately. Cost of the item/feature wherever asked should be quoted in the price bid only. The system should be cost effective, reliable and provide excellent performance. All the specifications quoted should be supported by the authentic data sheet. When the standard vendor data sheet disagrees with the bid response, clarification should accompany in the form of letter/certificate from appropriate authority in the absence of which vendor data sheet will prevail for the purpose of evaluation and decision of the technical evaluation committee and shall be final and binding on the supplier. The detailed specification that follows shall be understood to be minimum requirement. All points must be addressed clearly quoting data sheet with page number. Please respond to each point in detail and do not mention as 'yes' or 'no' only in the compliance sheet /letter. Any item not covered under the standard package should be quoted separately. Additional technical features suitable to our requirement will be given due preference. Offer should comprise delivery, installation, and acceptable safety measures until hand over of the system including all the accessories necessary for operation.

Technical Specifications

GC-MS consists of the following units:

GC	One Unit
Capillary columns	Two units (one chiral and one HP 5)
MS	One Unit [both EI and CI]
Autosampler	One Unit
N2 Generator	One Unit
UPS	One unit

MS Specifications

- ❖ LAN based quadrupole system with Non-coated Inert source
- ❖ 262L/sec turbo pump with Inert EI ion source and CI ion source.
- ❖ Mass range of 2-1000 amu in 0.1 amu steps
- ❖ Mass axis stability should be 0.10 amu/48 hrs
- ❖ Scan speed 10,000 amu
- ❖ Ion source temp - upto 350°C for better sensitivity for active compounds and it should be programmable .transfer temp - 100-350 ° C; quadrupole temp - 150-190° C.
- ❖ Electronic dynamic range -10eV
- ❖ Ionization current range 15-220eV
- ❖ Ionization current range - 1-315μ
- ❖ EI source should be inert to active compounds and should be programmable.
- ❖ EI scan sensitivity : approx 400:1 S/N for 1 pg OFN scanning from 50-300 amu at nominal m/z 272 ion
- ❖ PCI scan sensitivity : 125:1 S/N with Methane and 500:1 with Ammonia at nominal m/z 183 ion for 1-μL injection
- ❖ Additional Features SIM/Scan Automated SIM setup and high performance synchronous SIM/scan operation
- ❖ Application autotunes One-click autotune for BFB, DFTPP
- ❖ Spectral libraries

GC specifications

- ❖ Solvent Bypass - Eliminate early peaks.
- ❖ Lower detector maintenance costs.
- ❖ Find trace levels in a complex matrix.
- ❖ Backflush- Eliminate later/post-run peak.
- ❖ Shorten cycle times, eliminate sample carryover, less column usage & lower detector maintenance cost.
- ❖ Split- Send all peaks to multiple detectors- Obtain more information during each run.
- ❖ Operating temp range from near ambient to 450 °C.
- ❖ Possible to program 15 temp ramps (16 plateaus).
- ❖ Should be upgradable to Autoinjector of 12 or more Vials in future.
- ❖ Area reproducibility - 0.3 RSD, injection volume Linearity - 98% correlation.
- ❖ Possible to adjust pressure in increments of 0.001 psi, pressure setting range of 0-95 psi.

Autosampler

It should have 100 vials or more capacity with EPC

FID

Minimum detectable level (for tridecane): < 1.8 pg C/s

Should have EPC Data acquisition rate of upto 500 Hz

Software

Microsoft Windows NT based operating system for instrument control, data acquisition, data analysis, library search, quantitation, automation & customization with online and offline sessions provided

Should have facility to lock retention time of analytes and should quote some databases based on RT and spectra. Customer should be able to make databases based on Retention time. This is a desired feature.

Computer & Laser printer should be provided with the systems optionally.

Should quote Semiquant software, e-method can be downloaded from vendor site. Should have Auto SIM Facility to save time to setup SIM manual Method. Should have databases with RT & Spectra. Should have Gain normalization (user selectable Autotune). Should have Trace ion detection in Complex matrices and it should reduce false negatives and this technology also ensures more reproducible baseline, dramatically reducing the number of manual interventions during peak integration.

Tuning

System should include a variety of autotune algorithms to tune the instruments for maximum sensitivity or for specific target compounds.

Libraries

NIST latest version (08) spectra & Structure

Essential Accessories require to operate GCMS

No. of columns -2. One chiral and one HP 5.

Should quote metal plate spittler optionally to split sample in between FID & MSD. Should tolerate more than 350°C temperature and should have three EPC channel. It should have capillary flow with inert, low-mass, low dead volume. It should do backflush and can be changed column without venting MS vacuum.

SPECIAL TERMS AND CONDITIONS FOR SUBMISSION OF OFFER FOR THE GAS CHROMATOGRAPHY-MASS SPECTROMETRY

1. Offer should be made in two-bid system i.e. technical bid (1st Part), price bid (2nd part).
2. The price should include minimum accessories needed for the equipment. The optional accessories may be mentioned separately.
3. The technical details should have detailed specification of the equipments.
4. Current authorization letter of dealership from the principal company must be enclosed, in case, the offer is submitted through Dealer/Distributor.
5. Quote should include proper installation & demonstration of each equipment.
6. A list of quoted equipment sold by you in government organizations with full address of the organization & detail of equipment & accessories including model no. to be provided separately in the technical bid.
7. Provide the size and dimensions of the equipment in same units as asked for.
8. EMD, Sales Tax/Income Tax Clearance Certificate, in case of dealer/distributor current authorization certificate in original, issued by Principal Manufacturer and all other information required as per our tender documents, must be furnished with technical bid only.
9. Name of the bid, tender no. with due date must be mentioned at the top of the envelope.
10. Both the technical bid and price bid sealed separately should be submitted in a separate sealed envelope.

General terms and conditions should be compiled with while submitting the tender

1. Tenders should be submitted to the office of Centre of Biomedical Magnetic Resonance (CBMR), SGPGIMS Campus, Raebareli Road, Lucknow 226014, India, under the sealed cover failing which the tender shall be disqualified.
2. The tender terms and conditions be clearly typed or legibly written giving the full name and address of the tenderers. The tenderers should quote in figures as well as in words the rates and amount tendered by him/them. Alteration, if any unless legibly attested by the tenderers, with their full signature, shall invalidate the tender. The tender should be signed by the tenderers himself/themselves or his/their authorized agent on his/their behalf. In case the tender is signed by the agent the authority letter in his favour shall be enclosed with tender documents.
3. Sealed Tenders should be submitted in two-bid system (in two identical copies) consisting earnest money (as specified in tender notification), technical bid & price bid. In case of tender is related to equipment, the Earnest Money and Technical Bid shall be submitted in first part while price bid be submitted in second part, both separately sealed.
4. The tenderers should take care that the rates and amounts are written in such a way that interpolation is not possible. No blank space should be left, which would otherwise make the tender liable for rejection.
5. Delivery schedule with definite date of delivery at destination taking into cognizance of transit facilities must be indicated. This contractual delivery date/period should be inclusive of all the lead-time.
6. The tenderers should clearly state whether he/they are manufacturer, accredited agents, or sole representative (indicating the name of Principal) on the top of the Bid.
7. The tenderer submitting his tender would be deemed to have considered and accepted all the terms and conditions. No Enquiries, verbal or written shall be entertained in respect of acceptance or rejection of the tender.
8. The quantity shown in the Schedule may be increase or decrease or any extent depending upon the actual requirement.
9. The tenderer shall specify after sales services facilities within the Guarantee/Warranty period. The warranty period will be extended for the period of the Instruments remain out of order during warranty period.
10. The tender shall also confirm the Installation, Commissioning, Demonstration and Training to the concerned of this Centre.
11. The tenderer shall submit the pre-requisite information like civil works/ Electrical details etc. within 2 weeks from the date of receipt of order or establishment of letter of credit as the case may be.

12. The Centre reserves the right to cancel/reject in full or any part of the tender which generally do not fulfill the conditions stipulated in the tender without assigning any reason.
13. Any action on the part of the tenderer to influence anybody of the Centre will make his tender liable to rejection.
14. The tenderers shall submit the offer with in original copy of the tender documents duly signed on each page. Item-wise rates indicating units can be offered on letter head of the firm.
15. In the case of placement of Purchase Order, the vendor (the tenderers whose tender is accepted) shall have to confirm the purchase order within 7 days from the date of the dispatch of purchase order otherwise it will be deemed that offer is acceptable to the firm. Notwithstanding any other provision, the terms & conditions and any other items given in the Purchase order will be treated as binding with "Errors & omission Expected" basis. However, if the supplier notices any mistake in the contentions of the order, he must bring the same to the notice of the Centre and seek clarifications. Supplier will have to bear the responsibility for failure to take this action.
16. The Centre may in writing make any revision or change in the purchase order, including additions or deletions from the quantities originally ordered in the specifications or drawings. If any such revisions/changes affect the price or delivery, the same shall be subject to the adjustment of price/delivery, where requires on a reasonable basis by mutual agreement in writing which should be communicated.
17. The tenderer shall also furnish performance bank guarantee of 15% of the order value or (FOB) value at the time of shipment or supply of goods and this will be released after the successful completion of warrantee period.
18. The Centre reserves the right to cancel the purchase order or any part thereof and shall be entitled to revise the contract wholly or in part by a written notice to the vendor, if:-
The vendor fails to comply with the terms of the purchase order including specifications and other technical requirement. The vendor becomes bankrupt or goes into liquidation. The vendor fails to deliver the goods in time and or does not replace the rejected goods promptly A receiver is appointed for any of the property owned by the vendor.
19. Upon receipt of the said cancellation notice, the vender shall discontinue all works of the purchase order and matters connected with it.
20. Earnest Money (as specified in tender notification), be paid in shape of D/D, TDR, FDR, drawn in favor of the Director, Centre of Biomedical Magnetic Resonance, and payable at Lucknow (U.P.), India.
21. Unless otherwise specified in the order, the order price shall remain firm and will not be subject to escalation of any description during the pendency of the order, notwithstanding the change in the cost of materials, labor and/or variations in taxes, duties and other levies on raw materials and components may take place while the

order is under execution even if the execution of the order is delayed beyond the completion date specified in the order for any reason whatsoever.

22. For indigenous goods the price should be on F.O.R. CBMR basis inclusive of all levies and duties wherever applicable which should be indicated clearly. The rates of sales tax should be clearly indicated wherever chargeable. The CBMR is not eligible to issue 'C' or 'D' Form, however the concessional rate of Central Sales Tax admissible to Research Institutions on purchase of Scientific Instruments/Equipments etc. from certain States like Maharashtra., Delhi, West Bengal etc. is applicable to this Centre.
23. Prices will be quoted on F.O.B. as well as estimated CIP New Delhi basis for imported goods. Indian Agency commission/rebate payable to Indian Agent, if any, shall be shown separately and that will be payable in equivalent rupee directly to Indian Agent as per declaration furnished by foreign suppliers. The CBMR reserves the right to get their goods air-freighted/Sea freighted & air insured/marine insured up to site.
24. The offer of the tenders shall remain valid for a period of 180 days from the date of opening of the tender.
25. All goods or materials shall be supplied by the tenderers whose tender is accepted, strictly in accordance with the specifications, drawings, data sheets, other attachments and conditions stated any alterations of those conditions shall not be made without the consent of the Centre in writing which must be obtained before any work against the order is commenced. All material furnished by the seller pursuant to this order (irrespective of whether engineering, design data or other information has been furnished, reviewed or approved by the Centre) will be guaranteed to the best quality of their respective kind (unless otherwise specifically authorized in writing by the Centre) and shall be free from faculty design (to the extent such design is not furnished to the Centre) workmanship and materials, and to be of sufficient size and capacity and of proper materials so as to fulfill in all respects with all operating conditions, if any, specified in this order.
26. The period of standard warranty should be mentioned clearly with the price of the equipment. In addition to this, CMC charges for extended warranty of 5 years after the expiry of standard warranty period should be quoted separately.
27. The Centre may at his option, remove such defective materials at the seller's expense in which event the seller shall, without any cost to the CBMR and as promptly as possible, furnish and install proper materials, repaired or replaced materials shall be similarly guaranteed for a period of not less than 30 (thirty) months from the date of shipment.
28. In the event that the materials supplied do not meet the specifications and are not in accordance with the drawings, data sheets or the terms of this order, rectification is required at site, the CBMR shall notify to the seller giving full details of differences. The seller shall attend the site, within seven days of receipt of such notice to meet and agree with representative of the CBMR the action required to correct the deficiency.

29. If the seller fails to attend meeting at site within the time prescribed above, the CBMR shall immediately get the same rectified the work/materials and seller shall reimburse the Centre all costs and expenses incurred by the CBMR in removing such trouble or defect
30. 100% payments shall be released within 30 days from the date of satisfactory receipt of materials, where necessary performance bank guarantee @ 15% of the ordered value or FOB value shall be submitted to the Centre before arranging the delivery till expiry of warranty period.
31. The mode of payment will be through irrevocable letter of credit. However, Indian Agency Commission or Technical Services charges would be paid in Indian rupee after satisfactory receipt & installation of goods at site. Indian Agency Commission will be declared in the price-bid.
32. Time delivery as mentioned in Purchase order shall be the essence of the order and no variation shall be permitted except with prior authorization in writing from Purchaser.
33. In the event of delay in making delivery on the part of the vendor, it will be at purchaser's discretion to receive delivery with a reduction in price of the article/or equipment.
34. Forced majored shall mean and be limited to the following:
Any war/hostilities, Any riot or civil Communication, Any earthquake, flood, tempest, lighting or other natural physical disaster, Any strike, or lock-out (only those exceeding ten continues days in duration) affecting the performance of the seller's obligations.

The seller shall advise the CBMR by registered letter duly certified by Local Chamber of Commerce of Statuary authorities the beginning and end of the above causes of delay within 7 (seven) days of occurrence and cessation of such Forced Majeure conditions, in the event of delay lasting over one month, if arising our causes of Force Majeure, the CBMR reserves the right to cancel the order and the provisions governing termination state under articles shall apply. For delays arising out of Forced Majeure, the seller shall not claim extension in completion date for a period exceeding the period of delay attributable to the causes of Force Majeure and neither the CBMR nor the seller shall be liable to pay extra costs provided it is Mutually established that Force Majeure conditions did actually exist The seller shall categorically specify the extent of Force Majeure conditions prevalent in his works (such as power restriction etc.)at the time of submitting the bid and whether the same have taken into consideration or not in the quotations. In the event of delay delivery and/or unsatisfactory manufacturing progress and supply, the CBMR has the right to cancel the purchase order as whole or in part without liability for cancellation charges.

35. In the event of rejection of non-confirming goods the vendor shall be allowed, without any extension of delivery time to correct the non-conformities, should however the vendor fail to do so within stipulated time, the CBMR may cancel the order.
36. No Payment shall be made for rejected material nor would the tenderer be entitled to claim for such items.

37. Rejected items would be removed by the tenderer from the site within two weeks of the date of rejection at their own cost. In case they are not removed they will be auctioned at the risk and responsibilities of the suppliers without any further notice.
38. In the case of not honoring the supply order, CBMR, will have the right to impose penalty as deemed fit to resort to make purchase at the suppliers cost and risk may forfeit his security to make purchase at the suppliers cost and risk
39. In the case of non-supply of stores within stipulated period, it will be at the desecration of the CBMR to accept delivery with late delivery clause @ 1% per week maximum to the extent of 10% of the ordered value for delayed supply.
40. All disputes and question, if any arise between the Centre and the bidder out of or in connection with the terms and conditions contained herein or as to the construction of application thereof, or the respective rights and obligations of the parties there under or as to any clause or thing herein contained or by reason of the supply or failure or refusal to supply any material or as to any other matter in any way relating to these presents shall be referred to the sole Arbitration, President of the Centre/Chief Secretary of the U.P. Govt. or his nominee. The decision of the sole arbitrator shall be final and binding upon both parties and subject to adjudication of Lucknow Court. Place for arbitration shall be at Lucknow (U.P.), India. Venue of such arbitration proceedings shall be the Centre. Arbitration and conciliation Act 1996 and rules made there under shall be applied to the proceedings under this clause.
41. Copy of Sales-Tax Registration certificate duly attested by a Gazetted Officer should also be enclosed.
42. Tenderers hereby agree to all terms and conditions stipulated in N.I.T. and undertake to sign the rate Contract or Supply order within the given days from the date of order failing which Security shall be liable to forfeit.
43. The manufacturer or their Indian representative will ensure a proper after sales service as per our requirement from time to time, against the guarantee/warrantee clause as per the terms and conditions agreed under negotiations would be provided at our Centre without fail. Any negligence on this account shall be the sole responsibility of foreign vendor and the liability for compensation will be fixed up by the Centre of Biomedical Magnetic Resonance, Lucknow. A Comprehensive offer of same for 5 years would be finalized before placement of order either on comprehensive or semi/non-comprehensive basis (with or without spare/consumables/Accessories including labor charges) by the Centre to the tune of 95% uptime of equipment that AMC will be effective after expiry of warrantee period.

**Director
Centre of Biomedical Magnetic Resonance
SGPGIMS Campus, Raibareli Road
Lucknow**