

Request for Quote (RFQ) from Global manufacturers or its authorized Indian distributor for procurement of Gas Chromatography system with Flame Ionization Detector (FID)

Summary:

Tender Number	OC/SM/2021/GC
Tender Date	23 December 2021
Item Description	Gas Chromatography system with Flame Ionization Detector (FID)
Tender Type	Two bid system: (a) Technical Bid (Part A) (b) Commercial Bid (Part B)
Place of Tender Submission	Department Office, Room No. 44 Department of Organic Chemistry Indian Institute of Science Bangalore 560012
Last Date & Time for Submission of Tender	14 January 2022, 5:00 pm

To whom it may concern

This is a Request for quote (RFQ) from Global manufacturers or its authorized Indian distributor for procurement of **Gas Chromatography system with Flame Ionization Detector (FID)** at the Department of Organic Chemistry (OC), Indian Institute of Science, Bangalore.

All interested vendors shall submit a response demonstrating their capabilities to produce the requested equipment to the primary point of contact listed below.

The deadline for submission of proposals is 14 January 2022 by 5:00 pm. Proposals should arrive at the Department Office, Room No. 44, Department of Organic Chemistry, Indian Institute of Science, Bangalore, Karnataka 560012, India.

Direct all questions concerning the acquisition to **Prof. Santanu Mukherjee** by email only at: sm@iisc.ac.in

General Terms and Conditions

1. Quote should come only from the Original Global Equipment Manufacturer (OEM) or their authorized Indian distributor.
2. The bid should be submitted in the two-cover system, i.e., technical bid and commercial bid separately in sealed covers. The technical bid should contain all commercial terms and conditions, except the price.
3. The technical bid must contain a point-by-point technical compliance document. The technical proposal should contain a compliance table that should describe your compliance in a "yes" or "no" response against each of the items in the table listed in this RFQ. If the response is "no", the second column should state the extent of deviation. The third column should state the reason for the deviation, if any. The fourth column can be used to compare your tool with that of your competitors or provide details as requested in the technical requirement table below.
4. The commercial bid must include the price of the instrument (CIF, Bangalore, applicable Custom Duty will be borne by the Institute) and all components including controller accessories indicating component-wise and itemized breakup.
5. Price of every line item in the commercial bid should be quoted along with the total quoted price for the instrument to be operational (installed and ready to use) in our facility. Please quote the price of each optional line item separately.
6. The vendor should have qualified technical service personnel for the equipment based in India (preferably in Bangalore).
7. The lead time for the delivery of the equipment should not be more than 3 months from the date of receipt of our purchase order. It should be clearly mentioned in the technical and commercial bids.
8. All the quotations must be valid for at least 90 days at the time of submission.

9. List of customers and references: The Bidder should have supplied similar equipment in Central Universities preferably in centrally Funded Technical Institutes (IITs, IISc, IISERs, NITs). Please provide the details and contact information.
10. The Bidder must NOT be blacklisted/banned/suspended or have a record of any service-related dispute with any organization in India or elsewhere. A declaration to this effect should be provided.
11. Items in addition to that listed in the technical table that you would like to bring to our attention, such as data sheets, technical plots etc. can be listed at the end of the compliance table.
12. Vendors are encouraged to highlight the advantage of their tools over comparable tools from the competitors.
13. If needed, a meeting for any technical clarifications can be scheduled with the undersigned by sending an email.
14. The Institute reserves the right to accept or reject any bid, or to annul the bidding process and reject all bids, at any time prior to the award of contract without thereby incurring any liability of the affected bidder or bidders.
15. After the award of purchase order, the vendor must provide an Order Acknowledgement within 30 days from the receipt of the Purchase Order.
16. The vendor should have a good track record of having previously supplied a minimum of 5 GCs in IISc Bangalore and a minimum of 50 GCs in Karnataka region and should be able to provide End User Certificates from at least five users.
17. If the goods are found to be defective, they have to be replaced or rectified at the cost of the supplier within 30 days from the date of receipt of written communication from us.

Service, Training, and Warranty

1. The vendor must have local dedicated Sales & Service team & Application lab in Karnataka.
2. The vendor must demonstrate that it has a proven appropriate set-up and capability to provide after-sales service efficiently and effectively. The supplier should have a similar system in their facility to that proposed in this tender for training purposes.
3. On-site installation, commissioning, and training shall be conducted by a qualified factory-trained engineer.
4. Support should be available from Monday to Friday, 8:30 am to 5:30 pm (excluding Public Holidays), local time.
5. A declaration of Conformity certificate and System Validation certificate must be provided. All modules must be GLP compliant.
6. Warranty terms and additional warranty options are must for all the components. Please specify the service plan, like whether the local distributor will address the issue or the parent company. Minimum three years of complete system warranty should be given. If the system requires service during the warranty period, the vendor must guarantee or replace of

instrument for free. Vendor to have logistic support to ensure that over at least 95% of the service parts are readily available and upkeep delivery within 24 hours.

7. Terms and conditions for the annual maintenance contract beyond the warranty period should be mentioned.
8. If there is any delay in replacement or rectification, the warranty period should be extended accordingly.

Technical requirements: Please note that the requirements listed below are only guidelines. Vendors are requested to quote for equipment that meet the criteria to the best extent possible and list deviations, if any. Deviations are NOT an automatic reason for disqualification. They will be discussed by a technical group prior to making an informed decision.

Technical Specifications: Gas Chromatography system with Flame Ionization Detector (FID)

Item	Description
Column Oven	<ul style="list-style-type: none"> ▪ Column Oven should have the provision to accommodate two or more columns ▪ Operating temperature range of the column oven from near ambient to a maximum of 450 °C with set point resolution of 0.1 °C ▪ Column oven should support 15 ramps & maximum temperature ramp rate of 120 °C/min ▪ Cool down of Oven from 400 °C to 50 °C in less than 4 minutes (at Ambient 22 °C) ▪ Oven power must turn-off automatically when the lid/door is opened ▪ Auto retention time adjustment feature ▪ Auto leak detection ▪ Interactive touch screen with display of real time parameter going in instrument
Inlets	<ul style="list-style-type: none"> ▪ GC should have Programmable temperature inlet ▪ Inlet should have Advanced electronic flow control modules with Pressure set points adjustable in increments of 0.001 psi and pressure range up to 100 psi. Inlet Split ratio should be at least 7500:1 or better and suitable for all capillary column from 530 µm to 100 µm or smaller ▪ Inlet maximum operating temperature should be at least 400 °C or better ▪ An additional split/splitless inlet for headspace sample injection should be quoted for manual headspace sampling ▪ Both Programmable temperature inlet and split/splitless inlet should have provision for FID & MS detection by splitter
Auto Sampler/Injector	<ul style="list-style-type: none"> ▪ GC should be equipped with an auto-sample injection device and a software-controlled sampler ▪ Vial capacity of 12 vials or more with 2 mL vial volume for liquid injection
Detector	<ul style="list-style-type: none"> ▪ GC should be equipped with a Flame Ionization Detector (FID) ▪ FID should have data acquisition rate of 500 Hz or more ▪ Flameout detection and re-ignition should be possible ▪ Maximum operating temperature should be 400 °C or more ▪ FID should have a minimum detection limit of 1.2 Pg carbon/s or better for dodecane/tridecane or equivalent ▪ FID should have linear dynamic range >10⁷ ▪ Automated flow control for H₂, Air and Makeup gas or any other necessary gases
Computer and Software Features	<ul style="list-style-type: none"> ▪ Latest Branded 64-bit computer with Intel i5 or better processor, minimum 16 GB RAM, 2 TB HDD, DVD drive, minimum 7200 RPM SATA hard drive, minimum 20" branded monitor, keyboard and mouse with Licensed Windows® 10 OS ▪ Original software with license to control GC, data acquisition and data analysis

Accessories	<ul style="list-style-type: none"> ▪ Hydrogen, nitrogen, zero Air gas cylinders (02 each) with regulator, gas purification panel and manifold for each gas which can switch empty cylinder to filled cylinder. Enough tubing should be supplied so that cylinders can be connected with GCMS. Interested vendors can visit and inspect the site and distance from lab to cylinder hub. ▪ All connectors and essential accessories for the full installation and working of the GC system ▪ Standard accessories with additional SS/plastic tubing, ferrules, wrenches etc.
Consumables	<ul style="list-style-type: none"> ▪ Auto Injector 10 μL syringes – 6 nos ▪ Screw cap vial for autosampler – 500 nos ▪ Autosampler vial glass-insert (100 - 150 μL with plastic feet): 500 nos ▪ Septa Non-Stick BTO Inlet 11 mm 200 nos ▪ Ferrule, 0.5mm Graphite 0.32 col – 30 nos ▪ FID Jet, universal fit – 2 nos ▪ Gas Filter Kit to be included
Capillary column	<ul style="list-style-type: none"> ▪ HP-5 30 m \times 0.25 mm ID \times 250 μm film thickness column for hydrocarbon analysis – 2 columns
Warranty	<ul style="list-style-type: none"> ▪ Three years comprehensive warranty to be offered on the entire system
Training	<ul style="list-style-type: none"> ▪ Onsite demonstration and training for the faculty/scientists/students to be provided periodically for handling of the system and its application
Optional Items:	
<ul style="list-style-type: none"> ▪ Extended warranty for 2 years and 2+2 years; AMC options ▪ 10 KVA UPS with 60 min. back up ▪ Monochrome laser printer 	

Other Requirements

- The payment terms should be specified in the commercial proposal, which should be consistent with IISc's domestic purchase policies.
- Please provide details of the number of trained personnel in India, the number in the southern region, or Bangalore who can service the instrument.
- Please include other options currently available which can be added in the future.
- The vendor should attach product brochures along with the technical bid.
- A set of basic experiments for performing routine checks of acceptable operation with clear instructions to be provided. A standard sample to estimate column efficiency should be included.

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