# Request for Quote (RFQ) from domestic (India-based) manufacturers, Indian original equipment manufacturer (OEM) 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                               | 17 August 2021  |
| Item Description                          | Gas Chromatography system with Flame Ionization<br>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 | 31 August 2021, 5:00 pm   |

## To whom it may concern

This is a Request for quote (RFQ) from domestic (India-based) manufacturers, Indian OEM or its authorized Indian distributor only 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.

With respect to this tender, the rules laid out by the Government of India in order No. P45021/2/2017pp-BE-II issued by the Public Procurement Section, Department or Promotion of Industry and Internal Trade, Ministry of Commerce and Industry, dated 04 June 2020 will be followed. As per this order, the government has defined a 'Class-I local supplier' as "a supplier or service provider whose goods, services or work offered for procurement, has local content equal to or more than 50%". A 'Class-II local supplier' is "a supplier or service provider, whose goods, services or works offered for procurement, has local content more than 20% but less than 50%". Only Class-I and Class-II local suppliers are eligible to participate in this open domestic tender. **Any "Non-local supplier" i.e., "a supplier or service provider, whose goods, services or works offered for procurement, has local content less than 20%" is ineligible to participate in this tender.** 

The deadline for submission of proposals is 31 August 2021 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: <u>sm@iisc.ac.in</u>

#### **General Terms and Conditions**

- 1. Quote should come only from Indian Original 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. In the commercial bid, the price (in INR) should include delivery, installation, commissioning, and training (at least four users) at customer's location.

- 5. Provide certificates for country origin of manufacturing for each line items. 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.
- 6. The covering letter should clearly state whether the vendor is a Class-I or Class-II local supplier. Failing this, the bid will be automatically rejected.
- 7. The vendor should have qualified technical service personnel for the equipment based in India (preferably in Bangalore).
- 8. The vendor to state the percentage of the local content and provide self-certification that the item offered meets the minimum local content requirement. They should also give details of the location(s) at which the local value addition is made.
- 9. 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.
- 10. All the quotations must be valid for at least 90 days at the time of submission.
- 11. 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.
- 12. 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.
- 13. 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.
- 14. Vendors are encouraged to highlight the advantage of their tools over comparable tools from the competitors.
- 15. If needed, a meeting for any technical clarifications can be scheduled with the undersigned by sending an email.
- 16. 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.
- 17. After the award of purchase order, the vendor must provide an Order Acknowledgement within 30 days from the receipt of the Purchase Order.
- 18. Please quote the price of each optional line item separately. **The quotations should be on FOR-IISc Bangalore basis in INR only.**
- 19. 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.
- 20. 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.

<u>Technical requirements</u>: 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> <li>Column Oven should have the provision to accommodate two or more columns</li> <li>Operating temperature range of the column oven from near ambient to a maximum of 450 °C with set point resolution of 0.1 °C</li> <li>Column oven should support 15 ramps &amp; maximum temperature ramp rate of 120 °C/min</li> <li>Cool down of Oven from 400 °C to 50 °C in less than 4 minutes (at Ambient 22 °C)</li> <li>Oven power must turn-off automatically when the lid/door is opened</li> <li>Auto retention time adjustment feature</li> <li>Auto leak detection</li> <li>Interactive touch screen with display of real time parameter going in instrument</li> </ul>   |
| Inlets                            | <ul> <li>GC should have Programmable temperature inlet</li> <li>Inlet should have Advanced electronic flow control modules with<br/>Pressure set points adjustable in increments of 0.001 psi and pressure<br/>range up to 100 psi. Inlet Split ratio should be at least 7500:1 or better<br/>and suitable for all capillary column from 530 µm to 100 µm or smaller</li> <li>Inlet maximum operating temperature should be at least 400 °C or<br/>better</li> <li>An additional split/splitless inlet for headspace sample injection should<br/>be quoted for manual headspace sampling</li> <li>Both Programmable temperature inlet and split/splitless inlet should<br/>have provision for FID &amp; MS detection by splitter</li> </ul> |
| Auto<br>Sampler/Injector          | <ul> <li>GC should be equipped with an auto-sample injection device and a software-controlled sampler</li> <li>Vial capacity of 12 vials or more with 2 mL vial volume for liquid injection</li> </ul>  |
| Detector                          | <ul> <li>GC should be equipped with a Flame Ionization Detector (FID)</li> <li>FID should have data acquisition rate of 500 Hz or more</li> <li>Flameout detection and re-ignition should be possible</li> <li>Maximum operating temperature should be 400 °C or more</li> <li>FID should have a minimum detection limit of 1.2 Pg carbon/s or better for dodecane/tridecane or equivalent</li> <li>FID should have linear dynamic range &gt;10<sup>7</sup></li> <li>Automated flow control for H<sub>2</sub>, Air and Makeup gas or any other necessary gases</li> </ul>   |
| Computer and<br>Software Features | <ul> <li>Latest Branded 64-bit computer with Intel i7 or better processor,<br/>minimum 16 GB RAM, 2 TB HDD, DVD drive, minimum 7200 RPM<br/>SATA hard drive, minimum 24" branded monitor, keyboard and mouse<br/>with Licensed Windows 10 OS</li> <li>Original software with license to control GC, data acquisition and data<br/>analysis</li> </ul>   |

| Accessories  | <ul> <li>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.</li> <li>All connectors and essential accessories for the full installation and working of the GC system</li> <li>Standard accessories with additional SS/plastic tubing, ferrules, wrenches etc.</li> </ul> |
|--|---|
| Consumables  | <ul> <li>Auto Injector 10 µL syringes – 6 nos</li> <li>Screw cap vial for autosampler – 500 nos</li> <li>Autosampler vial glass-insert (100 - 150 µL with plastic feet) : 500 nos</li> <li>Septa Non-Stick BTO Inlet 11 mm 200 nos</li> <li>Ferrule, 0.5mm Graphite 0.32 col – 30 nos</li> <li>FID Jet, universal fit – 2 nos</li> <li>Gas Filter Kit to be included</li> </ul>   |
| Capillary column   | - HP-5 30 m $\times$ 0.25 mm ID $\times$ 250 $\mu m$ film thickness column for hydrocarbon analysis – 2 columns   |
| Warranty   | Three years comprehensive warranty to be offered on the entire system   |
| Training   | <ul> <li>Onsite demonstration and training for the faculty/scientists/students to<br/>be provided periodically for handling of the system and its application</li> </ul>  |
| Optional Items:  |   |
| <ul> <li>Extended warra</li> <li>10 KVA UPS with</li> <li>Monochrome last</li> </ul> |   |

### **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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