

	<p style="text-align: center;">INDIAN INSTITUTE OF TECHNOLOGY MADRAS Chennai 600 036</p> <p style="text-align: center;">Telephone: (044) 2257 4159 E-mail: raghur@iitm.ac.in</p>	
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Prof. Raghunathan Rengasamy
Project Coordinator

Ref: **CHE/RAGN/2019/1150/SPLX**
Dated: 18.12.2019

Limited Tender No: CHE/RAGN/2019/1150/SPLX

Due Date: 07.01.2020, 5:00pm

Pre-Bid meeting: - Not required.

Technical Bid opening meeting on Due Date: 08.01.2020, 4:00pm

Dear Sir/Madam,

On behalf of the Indian Institute of Technology Madras, offers are invited for the supply of **“SYRINGE PUMPS WITH SOFTWARE SUPPORT”** conforming to the specifications given in **(Annexure-I)**.

Instructions to the Bidder

- I. **Preparation of Bids:** - The Limited tenders should be submitted under two-bid system (i.e.) Technical bid and Financial bid.
- II. **Delivery of the tender:** - The tender shall be sent to the below-mentioned addresses either by post or by courier so as to reach the following address before the due date and time specified in our Schedule:
**Prof. Raghunathan Rengasamy,
Department of Chemical Engineering,
IIT Madras
Chennai - 600 036.**
- III. **Opening of the tender:** - The offer/Bids will be opened by a committee duly constituted for this purpose. The technical bids will be opened first and it will be examined by a technical committee which will decide the suitability of the bid as per our specifications and requirements. The bidders will be invited for opening of Technical bids. In respect of opening of financial bid, those bidders who are technically qualified only will be called for.
- IV. **Price:** - The price should be quoted in net per unit (after breakup) and must include all packing and delivery charges to **Department of Chemical Engineering.**

The offer/bid should be exclusive of taxes and duties. The percentage of tax & duties should be clearly indicated separately. IIT Madras is eligible for concessional GST and relevant certificate will be issued.

In case of import supply, the price should be quoted without custom duty. IIT Madras is exempted from levy of IGST on Imports and eligible for concessional custom duty (not exceeding 5%) and the price should be quoted on EX-WORKS and CIP (stating the Cost, Insurance, Freight separately) and indicating the mode of shipment.

- V. **Agency Commission:** - Agency commission, if any, will be paid to the Indian agents in Rupees on receipt of the equipment and after satisfactory installation. Agency Commission will not be paid in foreign currency under any circumstances. The details should be explicitly shown in Tender even in the case of 'Nil' commission. The tenderer should indicate the percentage of agency commission to be paid to the Indian agent. The foreign Principal should indicate about the percentage of payment and it should be included in the originally quoted basic price, if any.
- VI. **Terms of Delivery:** - The item should be supplied to our Departments as per Purchase Order. In case of import supply, the item should be delivered at the cost of the supplier to our Institution. The Installation/Commissioning should be completed as specified in our important conditions.
- VII. **Technical Bid Opening:** The technical bid will be opened on **08.01.2019, 4:00pm** at the **Department of Chemical Engineering**, IIT Madras and the financial bids of those tenders who are technically qualified will be opened at a later date under intimation to them.
- VIII. IIT Madras reserves the full right to accept / reject any tender at stage without assigning any reason.

Yours sincerely,

Prof. Raghunathan Rengasamy,
Department of Chemical Engineering,
IIT Madras
Chennai - 600 036.

SCHEDULE

Important Conditions of the tender

1. The due date for the submission of the tender is **07.01.2020, 5:00pm**.
The offers / bids should be submitted in two bids systems (i.e.) Technical bid and financial bid. The Technical bid should consist of all technical details / specifications only. The Financial bid should indicate item-wise price for each item and it should contain all Commercial Terms and Conditions including Taxes, transportation, packing & forwarding, installation, guarantee, payment terms, pricing terms etc. The Technical bid and financial bid should be put in separate covers and sealed. Both the sealed covers should be put in a bigger cover. The Limited Tender for supply of “**SYRINGE PUMPS WITH SOFTWARE SUPPORT**” should be written on the left side of the Outer bigger cover and sealed.
2. If an Indian agent is involved, the following documents must be enclosed:
Foreign principal's proforma invoice indicating the commission payable to the Indian Agent and nature of after-sales service to be rendered by the Indian Agent.
 - ✓ Copy of the agency agreement with the foreign principal and the precise relationship between them and their mutual interest in the business.
3. The offer/bids should be sent only for a machine that is available in the market and supplied to a number of customers. A list of customers in India and abroad with details must accompany the quotations. Quotations for a prototype machine will not be accepted.
4. Original catalogue (not any photocopy) of the quoted model duly signed by the principals must accompany the quotation in the Technical bid
5. Compliance or Confirmation report with reference to the specifications and other terms & conditions should also be obtained from the principal.
6. **Validity:** Validity of Quotation not less than 60 days from the due date of tender.
7. **Delivery Schedule:** - The tenderer should indicate clearly the time required for delivery of the item. In case there is any deviation in the delivery schedule, liquidated damages clause will be enforced or penalty for the delayed supply period will be levied. If there is delay, the penalty will be @1% per week of delay subject to a max of 10% of the value of purchase order and if the delay is more than accepted time frame by IITM, the PO would be cancelled, and liquidated damages will be enforced.
8. **Risk Purchase Clause:** - In the event of failure of supply of the item/equipment within the stipulated delivery schedule, the purchaser has all the right to purchase the item/equipment from other sources on the total risk of the supplier under risk purchase clause.

9. **Payment:** -

- i. No Advance payment will be made for Indigenous purchase. However, 90% Payment against Delivery and 10% after installation are agreed to wherever the installation is involved. In case of import supplies the payment will be made only through 100% Letter of Credit i.e. (90% payment will be released against shipping documents and 10% after successful installation wherever the installation is being done).
- ii. **Advance Payment:** - No advance payment is generally admissible. In case of specific percentage of advance payment is required, the Foreign Vendor has to submit a Bank Guarantee equal to the amount of advance payment and it should be routed through the Beneficiary Bank to the end user Bank. Otherwise, the Indian Agent of the foreign vendor has to submit a Bank Guarantee through a Nationalized Bank of India.

10. **On-site Installation:** - The equipment or machinery has to be installed or commissioned by the successful bidder within number of days (as prescribed by PI's) from the date of receipt of the item at site of IIT Madras.

11. **Warranty/Guarantee:** - The offer should clearly specify the warranty or guarantee period for the machinery/equipment. **Minimum One-year warranty.**

12. **Late offer:** - The offers received after the due date and time will not be considered. The Institute shall not be responsible for the late receipt of Tender on account of Postal, Courier or any other delay.

13. **Acceptance and Rejection:** - I.I.T. Madras has the right to accept the whole or any part of the Tender or portion of the quantity offered or reject it in full without assigning any reason.

14. **Do not quote the optional items or additional items unless otherwise mentioned in the Tender documents / Specifications.**

15. **Disputes and Jurisdiction:** -

- a. **Settlement of Disputes:** Any dispute, controversy or claim arising out of or in connection with this PO including any question regarding its existence, validity, breach or termination, shall in the first instance be attempted to be resolved amicably by both the Parties. If attempts for such amicable resolution fails or no decision is reached within 30 days whichever is earlier, then such disputes shall be settled by arbitration in accordance with the Arbitration and Conciliation Act, 1996. Unless the Parties agree on a sole arbitrator, within 30 days from the receipt of a written request by one Party from the other Party to so agree, the arbitral panel shall comprise of three arbitrators. In that event, the supplier will nominate one arbitrator and the Project Coordinator of IITM shall nominate one arbitrator. The Dean IC&SR will nominate the Presiding Arbitrator of the arbitral tribunal. The arbitration proceedings shall be carried out in English language. The cost of arbitration and fees of the arbitrator(s) shall be shared equally by the Parties. The seat of arbitration shall be at IC&SR IIT Madras, Chennai.

- b. **The Applicable Law:** This Purchase Order shall be construed, interpreted and governed by the Laws of India, Court at Chennai shall have exclusive jurisdiction subject to the arbitration clause.
- c. Any legal disputes arising out of any breach of contract pertaining to this tender shall be settled in the court of competent jurisdiction located within the city of Chennai in Tamil Nadu.

16. All Amendments, time extension, clarifications etc., will be uploaded on the website only and will not be published in newspapers. Bidders should regularly visit the above website to keep themselves updated. No extension in the bid due date/ time shall be considered on account of delay in receipt of any document by mail.

Acknowledgement: - It is hereby acknowledged that the tenderer has gone through all the conditions mentioned above and agrees to abide by them.

**SIGNATURE OF TENDERER
ALONG WITH SEAL OF THE COMPANY WITH DATE**

TECHNICAL SPECIFICATION**Scope of supply:**

Single/ multiple syringe pumps for independent and simultaneous operation of 4 syringes and required software support.

Quantity:

Single/ multiple syringe pumps: **Minimum number required to serve the purpose detailed in the technical specifications.**

Software for operating from computer: **1 No.**

High precision glass syringe of largest volume (with tubing connector) compatible with the quoted pump: **4 Nos.**

Technical Specifications:

1. Pump should be able to operate 4 syringes independently and simultaneously without fluctuations (If single pump cannot do this, multiple number of pumps may be quoted). Independent control means that flow in one syringe should not depend on the flow in other syringes. In other words, there should be separate pushing mechanism for each syringe.
2. Both infusion and withdrawal options should be available with all the pumps.
3. The working range of each pump should be at least 100 nm/min to 300 mm/min in terms of pusher rate.
4. The maximum force supplied by each pump should be at least 290 Newtons.
5. The fluctuations in pusher velocity should be less than 10 nm/min.
6. All pumps should be compatible with softwares such as C, C++, MATLAB, PYTHON, LABVIEW etc. For example, starting/ stopping the pump, setting up flow rates and flow rate profiles should be possible from the commands from the above software.
7. In order to use the pumps for different applications, we expect the availability of library support (list of commands for operating the pump through COM port or ethernet).
8. Each pump should be able to communicate with other pumps for synchronization purpose.
9. All pumps should have the facility to mount syringes having diameter from 6 mm to 40 mm.
10. Facility for automatic refilling of the syringe (without sucking air) is highly appreciated.
11. Also, quote for 4 no. s of high precision glass syringes of largest volume compatible with the pump.
12. Quote should be inclusive of any other items, which are essential for operating all the pumps from computer.
13. The warranty period for the equipment should be at least a year.

We would like to receive a **table indicating conformance or not for the specifications** and details as given below. Without this, the quotation will be rejected.

Serial number	Query	Response
1.	Number of syringes that can be mounted on single syringe pump (Specify the number)	
2.	If multiple numbers are possible in (1.), is independent operation of multiple syringes possible? (Yes/No)	
3.	Number of pump modules required to independently operate 4 syringes (Specify the number)	
4.	Both infusion and withdrawal options available for all the pumps? (Yes/No)	
5.	Minimum pusher velocity (Specify the value and unit)	
6.	Maximum pusher velocity (Specify the value and unit)	
7.	Accuracy of the pushing rate (nm/min)	
8.	Maximum force supplied by the pump (Specify value in Newtons)	
9.	Size of smallest mountable syringe (Specify the diameter of the syringe)	
10.	Size of largest mountable syringe (Specify the diameter of the syringe)	
11.	Can the pump be operated from computer? (Yes/No)	
12.	Bidirectional communication interface with a computer – USB and/or RS-232 (Specify compatibility- USB, RS-232 or both)	
13.	Can the pump be operated from the following softwares?	
	C (Yes/No)	
	C++ (Yes/No)	
	MATLAB? (Yes/No)	
	PYTHON? (Yes/No)	
	LABVIEW? (Yes/No)	
14.	Specify the operations possible from the above platforms (e.g. Start/Stop, Set the flow rate, Set flow rate profile etc)	
15.	Is there facility for automatic refilling of syringe? (Yes/No)	
16.	If Yes for (17), give details.	
17.	Operating voltage (Specify the voltage)	
18.	Warranty period of the machines?	
19.	Do you have customer support in India? (Yes/No)	