

## Tender document

Department of Chemical Engineering  
Indian Institute of Technology Kanpur  
Kanpur (UP) 208016 India

Enquiry date: **10-05-2019**

Enquiry No: **IITK/CHE/YMJ/2019/01**

Quotations are invited for **Syringe Pump system**. The detailed specification of the **Syringe Pump system** is described below. Quotation must be reach below address latest by 24 May 2019.

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### Terms and Conditions:

1. Only authorized venders may quote. Your quotation shall contain Authorization letter from the manufacturer.
2. Maximum Academic/Educational discounts should be applied.
3. The validity of the quotation should be at least for 30 days.
4. The Rate offered should be free delivery and proper Installation in IIT Kanpur.
5. Institute is exempted for payment of Excise Duty under notification. 10/97
6. Normal payment terms for the Institute will be applicable, 90% on delivery of the items and the remaining 10% after satisfactory installation/ inspection.
7. The delivery period should be specifically stated. Earlier delivery may be preferred.
8. The indenter reserves the right to withhold placement of final order. The right to reject all or any of the quotations and to split up the requirements or relax any or all of the above conditions without assigning any reason is reserved.
9. Please clearly mention the product warranty (**with 2 years or higher**) details.
10. Institute is exempted for partial custom duty (C D applicable to IIT Kanpur is 5.15%). Prices quoted should be FOB (indicating port of shipment) and CIF (IIT Kanpur) values separately if requires import

### **Specifications of the Syringe Pump system:**

1. Single mode pumping: **Pump system that can deliver through one syringe, at high pressure and used for flow of concentrated paste-like materials. The pump should be programmable with temperature and pressure control options.**
2. Maximum Flow rate: **300 ml/min or higher.**
3. Minimum Flow rate: **200 pL/min or lower.**
4. Linear Force: **250 lb or higher.**
5. Accessories: **Stainless steel syringes (20 ml, 50 ml), RS232 Cable, other accessories required for the pump if any.**
6. Infuse/withdraw: **Both infuse and withdraw.**
7. Accuracy: **< 0.05 % of flow rate.**
8. Uncertainty in Reproducibility: **< 0.05 %.**
9. Computer Control: **RS232.**
10. Step Resolution: **0.05 microns or lower.**
11. Operating Temperature: **5°C to 35°C**