

## CENTER FOR RURAL DEVELOPMENT AND TECHNOLOGY

Date: 03/03/2015

The technical and financial bids of the equipment in a sealed envelope should be send to Prof. S.N. Naik, Room No. 389, Block III, Center for Rural Development and Technology, IIT Delhi, HauzKhas, New Delhi-110016 before 18/03/2015.

### FERMENTOR

#### **The equipment should meet the following technical requirements**

1. The system should be compact, autoclavable, bench top with 3 L Capacity designed for growth of bacteria, yeast, fungi, mammalian and plant cell
2. Glass vessel (made of borosilicate) with working capacity of 0.8 to.2.2 litres, easily interchangeable vessels of any size any time
3. Easy to-use controller to easily integrate multiple external devices including scales, analyzers or sensors for optimized yields with large touch screen display capable of supporting more than one fermentor.
4. Batch, fed-batch and continuous modes for growing a wide variety of cell cultures. The equipment should be able to operate at the following parameters
5. pH: Range 2-12 pH with digital display in 0.01 increment
6. Temperature: Range 4°C to 80°C with digital display in 0.1°C increment via platinum RTD sensor
7. Agitation range: 50-1200 RPM by direct drive with high torque output via PI control with digital display in 1 RPM increment
8. Aeration: By 1 thermal mass flow controller (TMFC) with 4 gas control (4 solenoid valve)
9. DO: 0-200% via P.I. control with polarographic DO sensor with digital display in 0.01% increment
10. Oxygen Transfer Rate(OTR): 350 mM O<sub>2</sub>/L/Hr or More
11. Equipped with Foam/level sensor and Redox or second pH and second DO sensor
12. Inbuilt 3 assignable, peristaltic pumps with provision of external pump
13. The equipment should operate with 220V 50 Hz, single phase supply
14. The quote must accompany original printed catalogue of the equipment
15. At least 10 units of this equipment must be installed in India. Letter of satisfactory working of the equipment must be attached from these users

## **Other Terms and conditions covering submission of quotations**

1. TECHNICAL and FINANCIAL bids are to be provided in **separate** sealed envelopes. Mark the two envelopes clearly as “Technical Bid” and “Financial Bid”. Both the sealed envelopes should be sent in a single sealed envelope, clearly marked as “Quotations for FERMENTOR”
2. Please quote prices at FOB/ CIF New Delhi, inclusive of installation charges.
3. Quote should be valid for at least three months.
4. Clearly indicate the tax component of the prices quoted. If prices are inclusive of tax, please mention.
5. Please include any shipping/transport costs in the price.
6. Payment will be made by wire transfer on the basis of an invoice after delivery and satisfactory installation. If different conditions exist, please specify.
7. One year comprehensive on-site warranty (Parts and labour) required from the date of installation. Extended warranty may be quoted separately.
8. Standard accessories may be quoted separately.
9. Indicate if a special discount/ rebate, wherever admissible, is provided in view of the fact that the supplies are being purchased for academic purposes in a Public Institution of national importance.
10. If the items quoted are proprietary in nature, please enclose proprietary certificate from the principals stating “Certified that ----- is a proprietary item of M/s and no other manufacturer makes these items”.
11. Should a purchase order be placed, please state schedule of delivery and installation.
12. The equipment should be delivered and installed by the supplier as part of the supply process in the Center for Rural Development and Technology, IIT Delhi.
13. In case of service related orders the vendor authorizes IIT Delhi to deduct the service tax at prevalent rates while releasing payment.
14. If the quote is being submitted by the representative of the Principals/ manufacturers themselves, a valid Agency ship/ Dealership Certificate authorizing the agent to quote to IIT Delhi on behalf of Principals should be enclosed.
15. If the bidder is Indian agent, the agency certificate should be enclosed.
16. The Institute/ Purchase Committee has the right to accept/reject any/all bid/quotations without assigning any reasons whatsoever.