

# Indian Institute of Technology Delhi

## Department of Chemical Engineering

Date: 29<sup>th</sup> August, 2014

**Subject:** Purchase of a lab-scale autoclave (450 mL volume)

PFC (Purchase finalization Committee), Indian Institute of Technology Delhi, Hauz Khas, New Delhi-110016 on behalf of Director invites online Item Rate Quotation from the following work in two parts (Part-A Technical cum Commercial Bid, Part- B Price/ Financial Bid).

### Technical Specifications:

Sr. No.	Specifications & Parameters	Requirements
1	Volume & M.O.C	450 ml, net filling capacity made from SS 316 teflon coated solid bar stock (no welding) & all wetted parts of SS 316.
2	Design Pressure	100 Barg
3	Design Temperature	250 °C.
4	Nozzles & Fittings	i) External Fittings: Pressure gauge, Vent valve, safety rupture disc (Inconel) (Certified by original manufacturer), gas inlet- valve & liquid sampling valve mounted on common dip tube. ii) Internal Fittings: Internal cooling coil, thermowell (with RTD PT-100 ,temp. sensor),dip tube.
5	Body & Head Sealing	Teflon Gasket with split clamp type quick opening system with clamp bolts. Body clamps shall be with clut / latches to prevent flying off of clamps in case of over pressure.
6	Motor & drive	¼ H.P. AC Motor and variable frequency drive with 100-1450 RPM infinitely variable speed & digital RPM indication. Motor shall have 3 piece quick & maintenance free connect/disconnect motor coupling for ease of operation. (In place of spring loaded clutching).
7	Shaft Sealing	Zero leakage Magnetic drive coupling. ( Maintenance free )
8	Stirrer	6 bladed turbine stirrer with stirrer clamp & bush for the shaft (to prevent wear & run out of shaft at high rpm)
9	Control Panel	External electrical ceramic band heater with insulation & with high temperature steel cladding & provision to connect heater temperature sensor. It shall have Insulated heater plate to prevent thermal shock to operator. SS control panel with Microprocessor based Programmable P.I.D temperature controller (Make: PPI / WEST / SELEC, Programs: 16 ramp/soak with OSIH over shoot inhibit parameter to control overshoot with standby mode to cut off heating & cooling) with high temperature alarm system &

		motor speed controller mounted on it. The panel shall be Screw less design with push lock enclosure, PVC Cable tray for internal wiring, safe & rugged metal clad military grade lockable plug sockets for all the sensors, heaters & motors (for tight connection & safety).
10	Mains Power Supply	220 V AC $\pm$ 10%, 50Hz
11	Mounting	Table top
12	SS Pr. Regulator	With pressure gauge & 4m long flexible hose pipe with NRV (viton 'o' ring) for 0-140 bar O/P pressure for H <sub>2</sub> gas cylinder & adaptor for N <sub>2</sub> , O <sub>2</sub> or Air.
13	Digital pressure indicator	In bar & psi (Make: PPI, Model: Neuro 100a/ N100ac) with SS-316 Pr. Transmitter (Non-FLP) & high pressure alarm in addition to analog pressure gauge with high Pressure Safety Heater cut off.

### Terms and Conditions:

1. The last date for the submission of the submission of the bids is 19<sup>th</sup> September, 2014. The tender has to be submitted before the due date. The offers received after the due date and time will not be considered
2. The offer/bid should be submitted in two bid systems (i.e.) Technical bid and financial bid. The technical bid should consist of all technical details along with commercial terms and conditions. Financial bid should indicate total price for the items mentioned inclusive of all the taxes and other applicable charges. The Technical bid and the financial bid should be submitted in two separate envelopes.
3. The bids will be opened by a committee duly constituted for this purpose.
4. The Committee reserves the right to reject any or all offers without assigning any reason.
5. (i) Bidders should be the manufacturer / authorized dealer. Letter of Authorization from original equipment manufacturer (OEM) on the same and specific to the tender should be enclosed.  
(ii) An undertaking from the OEM is required stating that they would facilitate the bidder on a regular basis with technology/product updates and extend support for the warranty as well.  
(iii) OEM should be internationally reputed Branded Company.  
(iv) Non-compliance of tender terms, non-submission of required documents, lack of clarity of the specifications, contradiction between bidder specification and supporting documents etc. may lead to rejection of the bid.
6. In 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 the other source on the total risk of the supplier under risk purchase clause.
7. Delivery of the goods should be made within a maximum of 06 to 10 weeks from the date of placement of purchase order.

8. If the delivery is not made within the due date for any reason, the Committee will have the right to impose penalty 1% per week and the maximum deduction is 10% of the contract value / price.
9. Wherever applicable, supplier shall regularly intimate progress of supply, in writing, to the Purchaser as under:
  - i. Quantity offered for inspection and date;
  - ii. Quantity accepted/rejected by inspecting agency and date;
  - iii. Quantity dispatched/delivered to consignees and date;
  - iv. Quantity where incidental services have been satisfactorily completed with date;
  - v. Quantity where rectification/repair/replacement effected/completed on receipt of any communication from consignee/Purchaser with date;
  - vi. Date of completion of entire Contract including incidental services, if any; and
  - vii. Date of receipt of entire payments under the Contract (In case of stage-wise inspection, details required may also be specified).
10. Inspection and tests prior to shipment of Goods and at final acceptance are as follows:
  - i. After the goods are manufactured and assembled, inspection and testing of the goods shall be carried out at the supplier's plant by the supplier, prior to shipment to check whether the goods are in conformity with the technical specifications attached to the purchase order. Manufacturer's test certificate with data sheet shall be issued to this effect and submitted along with the delivery documents. The purchaser shall be present at the supplier's premises during such inspection and testing if need is felt. The location where the inspection is required to be conducted should be clearly indicated. The supplier shall inform the purchaser about the site preparation, if any, needed for installation of the goods at the purchaser's site at the time of submission of order acceptance.
  - ii. The acceptance test will be conducted by the Purchaser, their consultant or other such person nominated by the Purchaser at its option after the equipment is installed at purchaser's site in the presence of supplier's representatives. The acceptance will involve trouble free operation and ascertaining conformity with the ordered specifications and quality. There shall not be any additional charges for carrying out acceptance test. No malfunction, partial or complete failure of any part of the equipment is expected to occur. The Supplier shall maintain necessary log in respect of the result of the test to establish to the entire satisfaction of the Purchaser, the successful completion of the test specified.
  - iii. In the event of the ordered item failing to pass the acceptance test, a period not exceeding one weeks will be given to rectify the defects and clear the acceptance test, failing which the Purchaser reserve the right to get the equipment replaced by the Supplier at no extra cost to the Purchaser.
  - iv. Successful conduct and conclusion of the acceptance test for the installed goods and equipment shall also be the responsibility and at the cost of the Supplier.

11. The place of jurisdiction would be New Delhi (Delhi) INDIA.
  12. If after delivery, acceptance and installation and within the guarantee and warranty period, the operation or use of the goods proves to be unsatisfactory, the Purchaser shall have the right to continue to operate or use such goods until rectifications of defects, errors or omissions by repair or by partial or complete replacement is made without interfering with the Purchaser's operation.
  13. The Supplier is responsible for and obliged to conduct all contracted activities in accordance with the Contract using state of the art methods and economic principles and exercising all means available to achieve the performance specified in the contract.
  14. The Supplier is required to provide training on training to the designated Purchaser's technical and end user personnel to enable them to effectively operate the total equipment.
  15. The supplier is required to done the installation and demonstration of the equipment within one month of the arrival of materials at the IITD site of installation, otherwise the penalty clause will be the same as per the supply of materials.
  16. For delivery of goods at the purchaser's premises, the insurance shall be obtained by the
  17. Supplier in an amount equal to 110% of the value of the goods from "warehouse to warehouse" (final destinations) on "All Risks" basis including War Risks and Strikes. The insurance shall be valid for a period of not less than 3 months after installation and commissioning. ***In case of orders placed on FOB/FCA basis, the purchaser shall arrange Insurance. If orders placed on CIF/CIP basis, the insurance should be up to IIT Delhi.***
  18. The incidental services also include:
    - i. Furnishing of 01 set of detailed operations & maintenance manual.
    - ii. Arranging the shifting/moving of the item to their location of final installation within IITD premises at the cost of Supplier through their Indian representatives.
  19. Warranty period shall be 36 months from date of installation of Goods at the IITD site of installation. The Supplier shall, in addition, comply with the performance and/or consumption guarantees specified under the contract. If for reasons attributable to the Supplier, these guarantees are not attained in whole or in part, the Supplier shall at its discretion make such changes, modifications, and/or additions to the Goods or any part thereof as may be necessary in order to attain the contractual guarantees specified in the Contract at its own cost and expense and to carry out further performance tests. **The warranty should be comprehensive on site.**
- Note:
- i. If a different period of warranty has been specified in the 'Technical Specifications' then the period mentioned above shall stand modified to that extent.
  - ii. The Purchaser shall promptly notify the Supplier in writing of any claims arising under this warranty. Upon receipt of such notice, the Supplier shall immediately within in 02 days arrange to repair or replace the defective goods or parts thereof free of cost at the

ultimate destination. The Supplier shall take over the replaced parts/goods at the time of their replacement. No claim whatsoever shall lie on the Purchaser for the replaced parts/goods thereafter. The period for correction of defects in the warranty period is 02 days. If the supplier having been notified fails to remedy the defects within 02 days, the purchaser may proceed to take such remedial action as may be necessary, at the supplier's risk and expenses and without prejudice to any other rights, which the purchaser may have against the supplier under the contract.

20. The contract shall be written in English language. English language version of the Contract shall govern its interpretation. All correspondence and other documents pertaining to the Contract, which are exchanged by the parties, shall be written in the same language.
21. The Contract shall be interpreted in accordance with the laws of the Union of India and all disputes shall be subject to place of jurisdiction.
22. Any notice given by one party to the other pursuant to this contract/order shall be sent to the other party in writing or by cable, telex, FAX or e mail and confirmed in writing to the other party's address. A notice shall be effective when delivered or on the notice's effective date, whichever is later.
23. Suppliers shall be entirely responsible for all taxes, duties, license fees, octroi, road permits, etc., incurred until delivery of the contracted Goods to the Purchaser. However, VAT in respect of the transaction between the Purchaser and the Supplier shall be payable extra, if so stipulated in the order.
24. Before the goods and equipment are taken over by the Purchaser, the Supplier shall supply operation and maintenance manuals. These shall be in such details as will enable the Purchaser to operate, maintain, adjust and repair all parts of the works as stated in the specifications.
25. The supplier shall inform to the Institute about the site preparation, if any, needed for the installation of equipment, immediately after the receipt of the purchase order. The supplier must provide complete details regarding space and all the other infrastructural requirements needed for the equipment, which the Institute should arrange before the arrival of the equipment to ensure its timely installation and smooth operation thereafter. The supplier shall visit the Institute and see the site where the equipment is to be installed and may offer his advice and render assistance to the Institute in the preparation of the site and other pre-installation requirements.
26. The equipment or machinery has to be installed or commissioned by the successful bidder within 30 days from the date of receipt of the item at IITD. In case of any mishappening/damage to equipment and supplies during the carriage of supplies from the origin of equipment to the installation site, the supplier has to replace it with new equipment/supplies immediately at his own risk. Supplier will settle his claim with the insurance company as per his convenience. IITD will not be liable to any type of losses in any form.

27. The Supplier may be required to provide any or all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the Supplier:
- i. Such spare parts as the Purchaser may elect to purchase from the Supplier, providing that this election shall not relieve the Supplier of any warranty obligations under the Contract; and
  - ii. In the event of termination of production of the spare parts:
  - iii. Advance notification to the Purchaser of the pending termination, in sufficient time to permit the Purchaser to procure needed requirements; and
  - iv. Following such termination, furnishing at no cost to the Purchaser, the blueprints, drawings and specifications of the spare parts, if requested.
  - v. Supplier shall carry sufficient inventories to assure ex-stock supply of consumable spares for the Goods, such as gaskets, plugs, washers, belts etc. Other spare parts and components shall be supplied as promptly as possible but in any case within six months of placement of order.
28. If any of the equipment supplied by the Tenderer is found to be substandard, refurbished, un-merchantable or not in accordance with the description/specification or otherwise faulty, the committee will have the right to reject the equipment or its part. The prices of such equipment shall be refunded by the Tenderer with 18% interest if such payments for such equipment have already been made. All damaged or unapproved goods shall be returned at suppliers cost and risk and the incidental expenses incurred thereon shall be recovered from the supplier. Defective part in equipment, if found before installation and/or during warranty period, shall be replaced within 45 days on receipt of the intimation from this office at the cost and risk of supplier including all other charges. In case supplier fails to replace above item as per above terms & conditions, IIT Delhi may consider "Banning" the supplier.
29. The Purchaser may, without prejudice to any other remedy for breach of contract, by written notice of default sent to the Supplier, terminate the Contract in whole or part:
- i. If the Supplier fails to deliver any or all of the Goods within the period(s) specified in the order, or within any extension thereof granted by the Purchaser; or
  - ii. If the Supplier fails to perform any other obligation(s) under the Contract.
  - iii. If the Supplier, in the judgment of the Purchaser has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.
30. For the purpose of this Clause:
- i. **“Corrupt practice”** means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution.
  - ii. **“Fraudulent practice”** means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Borrower, and includes collusive practice among Bidders (prior to or after bid submission)

designed to establish bid prices at artificial non-competitive levels and to deprive the Borrower of the benefits of free and open competition;”

31. In the event the Purchaser terminates the Contract in whole or in part, the Purchaser may procure, upon such terms and in such manner, as it deems appropriate, Goods or Services similar to those undelivered, and the Supplier shall be liable to the Purchaser for any excess costs for such similar Goods or Services. However, the Supplier shall continue the performance of the Contract to the extent not terminated.
32. The warranty period should be clearly mentioned. The maintenance charges (AMC) under different schemes after the expiry of the warranty should also be mentioned. **The tender must be quoted with three (03) years on-site comprehensive warranty / guarantee which will commence from the date of the satisfactory installation / commissioning of the equipment against the defect of any manufacturing, workmanship and poor quality of the components.** After the warranty period is over, Annual Maintenance Contract (AMC)/Comprehensive Maintenance Contract (CMC) up to next two years should be started. The AMC/CMC charges will be included in computing the total cost of the equipment.
33. The supplier shall be required to undertake to provide the technical training to the personnel involved in the use of the equipment at the Institute premises, immediately after completing the installation of the equipment for a minimum period of one week at the supplier's cost.
34. 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 New Delhi.
35. This certificate must be provided indicating conformity to the technical specifications.
36. It is hereby acknowledged that we have gone through all the conditions mentioned above and we agree to abide by them.
37. Quotation must indicate a delivery schedule, which in no case should exceed 12 weeks from the date of placement of order.
38. Final prices should include all taxes, delivery and installation charges. Please note that IIT Delhi is exempt from excise duty and Custom Duty.
39. Suppliers shall be entirely responsible for all taxes, duties, license fees, octroi, road permits, etc., incurred until delivery of the contracted Goods to the Purchaser. However, VAT in respect of the transaction between the Purchaser and the Supplier shall be payable extra, if so stipulated in the order.
40. For the purpose of all notices, the following shall be the address of the Purchaser and Supplier.  
Purchaser: Prof. K. K. Pant, Department of Chemical Engineering, IIT Delhi, Hauz Khas, New Delhi – 110016.