

# CSIR-INDIAN INSTITUTE OF PETROLEUM

DEHRADUN (U.K.) INDIA



## BID DOCUMENT

Under TWO BID System  
For

**"HIGH PRESSURE BATCH REACTOR"**

Ref No. PUR/1/19-20/SR/BFD/106/PO

Date: 16.07.2019

Last Date/Time of submission: upto 15:00 hrs (IST) on 06.08.2019

Date/Time of opening: at 15:00 hrs (IST) on 07.08.2019

To Be Submitted To

Stores & Purchase Officer  
CSIR-INDIAN INSTITUTE OF PETROLEUM

P.O. IIP, MOHKAMPUR,  
HARDWAR ROAD, DEHRADUN (U.K), India

Ph: 0135-2525762, 2525945

Telefax:+91-135-2660202-203

website: [www.iip.res.in](http://www.iip.res.in)

## INVITATION FOR THE BIDS

Ref No. PUR/1/19-20/SR/BFD/106/PO

Date: 16.07.2019

Bids in two parts shall be submitted on CPP Portal (<https://etenders.gov.in>) , Part A(Technical Bid) : containing scanned copy of Earnest Money Deposit (EMD), Documents in support of "Eligibility Criteria", checklist & "Technical Bid" and Part B (Financial Bid): containing Financial Bid valid for 120 days are invited from eligible bidders for supply of "**HIGH PRESSURE BATCH REACTOR**" for the INDIAN INSTITUTE OF PETROLEUM (CSIR-IIP), Dehradun as per detail specification provided at the Schedule of Requirement.

### **1.0 Eligibility Criteria/ Pre-qualification Requirement**

- I. The Bidder should be a manufacturer or a dealer specifically authorised by the manufacturer to quote on their behalf for this tender as per manufacturer authorisation form and Indian agents of foreign principals, if any who must have designed, manufactured, tested and supplied the equipment(s) similar to the type specified in the "Technical Specification".
- II. Details of service support facilities that would be provided after the warranty period should be submitted in the Service Support Details Form.
- III. In the case of a Bidder not doing business in India, the Bidder is/or will be (if successful) represented by an Agent in India who shall be equipped and able to carry out the Supplier's maintenance, repairs and spare parts, stocking obligations prescribed by the conditions of the contract.
- IV. The Bidder will assume total responsibility for the fault-free operation of equipment, application software, if any.
- V. Bidders who meet the criteria given above are subject to be disqualified, if they have made untrue or false representation in the forms, statements and attachments submitted in proof of the qualification requirements or have a record of poor performance, not properly completing the contract, inordinate delays in completion or financial failure, etc.
- VII Bidder should submit valid documentary proof of GSTN and the details of income tax registration (PAN).
- VIII Bidder should have to submit earnest money deposit (EMD) of Rs 84,000.00 (Rupees Eighty Four Thousand only) in the form of Bank Guarantee or Demand Draft drawn in favour of 'The Director, I.I.P., Dehradun,' on a scheduled/ nationalized bank payable at Dehradun on or before the Tender submission date and time. Delay in submission of EMD may lead the bid as non-responsive. Only online quotations will be entertained from the registered bidders of CPP Portal ([www.etenders.gov.in](http://www.etenders.gov.in)) and the original EMD should be physically furnished in our institute on or before tender submission date.
- IX. Bidders should submit quotations in Indian Currency only (INR) for Open Tender.

- 1.1 CSIR-IIP reserves the right to verify/seek confirmation of all original documentary evidence submitted by vendors in support of above mentioned clauses of eligibility criteria. In case any information furnished by the bidder is found to be false /incorrect at any stage, the bid shall be summarily rejected and no correspondence on the same shall be entertained.
- 1.2 The vendor must fulfil the above eligibility criteria/ pre-qualification conditions. Technical bid of vendors fulfilling the pre-qualification conditions will only be evaluated by the duly constituted technical evaluation committee. Bid of vendors not fulfilling the Eligibility– Criteria given above will be summarily rejected. Undertaking for subsequent submission of any of the above documents will not be entertained under any circumstances.
- 1.3 ***Part –A of the bid comprising documents in support of “Eligibility Criteria”, “Technical Bid”, “Earnest Money Deposit” and check list and Part – B “Financial Bid” should be submitted on Central Public Procurement Portal (<https://etenders.gov.in>) in accordance with the instructions/terms & conditions of the tender. .***
- 1.4. An Envelope containing EMD in original addressed to the Director, I.I.P., Dehradun should reach by hand/post at the following address **on or before the Tender submission date and time:**

**The Director,  
(K/A: Stores & Purchase Officer),  
CSIR-INDIAN INSTITUTE OF PETROLEUM  
P.O. IIP, MOHKAMPUR, HARDWAR ROAD  
DEHRADUN- 248005, U.K., India**

- 1.5. The “Part A (Technical Bid)” of bid will be opened in the Purchase Section of the CSIR-IIP on the next day (last date of submission of the Bid) at 15:00 hours (IST) in the presence of bidders who choose to be present.
- 1.6 CSIR-IIP will make its purchasing decision based on the ability of the bidder to meet its Labs/Institutes long term needs, technical expertise of the bidder, delivery capability, customer references and price. However, specific criterion used to evaluate bid response is listed in the chapter “Instruction to bidders”.
- 1.7. The Director, CSIR-Indian Institute of Petroleum, P.O. IIP, Mohkampur, Hardwar Road, Dehradun- 248005 (U.K) India, CSIR-IIP reserves the right to waive any minor irregularities; accept the whole, accept part of or reject any or all bids.

  
(Section Officer, Stores & Purchase)

## Schedule of Requirements & Technical Specifications

### 1.1 Scope of the Work:

Supply, Installation, Testing, Commissioning, Support Services and on-Site Comprehensive Warranty Maintenance of the equipment as per detail technical specification given below.

**Note:** The bidder should undertake to provide support for the supplied systems/sub-systems for **warranty period of one year from the date of installation**. The bidders shall be required to confirm their willingness to accept the contract and indicate the terms and conditions in their technical bid along with the corresponding charges in the financial bid.

1.2 Potential suppliers should provide detailed activities time schedule, which represents the shortest practical time to complete all necessary tasks and meet the obligations of the requirements. All significant activities must be included, including those associated with the delivery, acceptance testing, installation and commissioning of the equipments/ products and quality certifications.

### 1.3 Technical Specifications:

The detailed technical specifications of the equipments/ systems are specified below:

Sl. No	Description	Quantity
1.	<b>HIGH PRESSURE BATCH REACTOR</b> (The detailed description of the instrument is given in attached document)	01 (One No.)

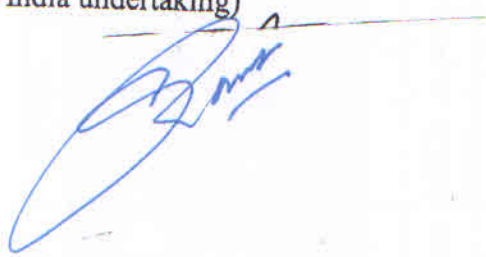
Please note that complete set of "Standard Bid Document" is available in our website [www.iip.res.in](http://www.iip.res.in) at free of cost. The same may be downloaded and used while preparing your bid. A copy of the same may be attached along with the bid, duly signed and stamped. EMD should be in favour of Director, I.I.P., Dehradun in form of Demand Draft or Bank Guarantee. The scanned copy of EMD should be attached with your Technical Bid.

  
(Section Officer, Stores & Purchase)

## Technical Specification of High pressure batch reactor

1. Reactor size/capacity: 900-1000 mL
  2. Maximum temperature: 350° C
  3. Design pressure: 2900psi (200bar)
  4. Working pressure: 2610 psi (180 bar)
  5. Cylinder, head, and internal wetted components made of Alloy C-276; External valves and fittings constructed of T316 Stainless steel
    - a. Vessel Type (Reactor vessel should be made from Solid bar stock of C276 alloy): Fixed head, removable vessel and bolted closure
    - b. Internal parts: Cooling coil with solenoid valve module, gas inlet port, liquid sampling port, stirrer and thermowell
    - c. External parts: Safety head assembly with rupture disc, gas inlet and vent, liquid sampling valve and Pressure gauge
  6. Pressure gage: 250 bar or better
  7. Cooling coil with solenoid valve module for cooling control
  8. Gaskets for high (RT to 350 C) and low temperature (RT to 250 C) operation should be provided.
  9. Magnetic stirrer drive:
    - a. General purpose variable drive speed ( made of Alloy C-276)
    - b. Stirrer speed: variable speed, 0-2000RPM or higher; Stirring speed should be based on the actual agitator speed (*variable frequency drive based calculated rpm, based on motor ratings is not acceptable*)
  10. Thermocouples for process temperature and furnace temperature measurement
  11. Heater: Calrod type/ ceramic band heater with heating rate 5-10 °C/min
  12. Controller: PID Controller for temperature programming, motor speed control, Tachometer/RPM display module, Pressure display module
  13. Provision for semi batch mode operation.
  14. Back pressure regulator for semi batch operation
  15. Spare parts for 2 years hassle free operation
  16. Power requirement: 230 VAC
  17. ASME certificate must be supplied along with the offered reactor for the rated pressure, temperature and Material of construction
- 18. Installation, warranty and Training**
- a) Warranty : 1 year onsite warranty
  - b) A certificate from the vendor is required stating that it will provide compulsory ten year service support with required spares after the supply of the instrument.
  - c) Full installation and commissioning at the cost of supplier.

- e) Necessary-pre installation advice should be sent immediately before shipping the instrument.
- f) Two sets of operation, service manual and electronic circuit diagram of controller have to be provided free of cost (hard copy and soft copy)
- g) All relevant calibration certificates must be provided
- h) Onsite user and maintenance training troubleshooting and operation training of the instrument at user site for 2-5 persons at no cost to IIP
- i) The supplier must demonstrate that they have appropriate set-up and capability to provide after-sales service effectively in India for prompt service support along with number of service engineers specially trained on the offered system.
- j) Supplier must provide a PO copy for at least one other installation for the rated (or better) pressure, temperature, volume and MOC (preferably CSIR labs, PSUs, Govt. of India Institutions or Govt. of India undertaking)

A handwritten signature in blue ink, consisting of a large, stylized loop followed by several smaller, less distinct strokes, positioned below the list of requirements.