



NATIONAL INSTITUTE OF TECHNOLOGY

ROURKELA-769008 (ODISHA)

An Institute of National Importance under Ministry of Education, GOI

NOTICE INVITING TENDER

Tender Notification No: NITR/PW/ME/2020/215

Dated:22/12/2020

The National Institute of Technology, Rourkela invites bids from the eligible bidders for procurement and installation of **A COMPLETE UNIT OF RECIPROCATING PUMP TEST RIG** at NIT Rourkela.

Last date of Submission of Bid : **12/01/2021 by 03:00 PM**

Date of opening of technical-commercial bid : **13/01/2021 at 03:00 PM**

For Details:

http://nitrkl.ac.in/OldWebsite/Jobs_Tenders/9Equipment/Default.aspx

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Bidding through: <https://eprocure.gov.in/eprocure/app>

**Sd/-
REGISTRAR**



**NATIONAL INSTITUTE OF TECHNOLOGY
ROURKELA-769008, ODISHA**

OPEN TENDER NOTICE NO.: NITR/PW/ME/2020/215

Dated:22/12/2020

(Procurement of a Complete Unit of Reciprocating Pump Test Rig)

Item No	Description	Quantity
1	A Complete unit of Reciprocating Pump Test Rig	1 Unit

1. Quantity required : **As mentioned above (All information regarding technical specification of a Complete Unit of Reciprocating Pump Test Rig)**
2. Delivery : Within **90 days** from the date of the purchase order
3. **Last date of submission of bid : 12/01/2021 by 03:00 PM**
4. **Date of opening of technical bid : 13/01/2021 at 03:00 PM**
5. The firm should not have been black listed at any time.
6. The submission of the following bids by the tenderer should be through <https://eprocure.gov.in/eprocure/app> Please follow the guidelines as per the portal.

**Procurement and installation of a complete unit of Reciprocating Pump Test Rig
(Tender Notice No.: NITR/PW/ME/2020/215 Dated: 22/12/2020)
Due on 12/01/2021 at 03:00 PM**

7. **The Liquidated damage clause** will be charged for any delay in the supply of goods.
8. The validity of the tender shall be **90 days** from the date of opening of techno-commercial bids.
9. Detailed advertisement, including all tender documents, is also available on our website at http://nitrkl.ac.in/OldWebsite/Jobs_Tenders/9Equipment/Default.aspx .
10. NIT reserves the right to qualify or deny prequalification of any or all applicants without assigning any reasons.

**(REGISTRAR)
NIT, Rourkela
Fax No- 0661-2462022
Ph. No -0661-2472021**

Specifications of the complete unit of Reciprocating Pump Test Rig

Technical Specification

The objective is to effectively understand the construction and operation, performance characteristics of a reciprocating pump. The unit should contain an electric motor as the drive unit. Optionally, it should have the facility for varying the motor's speed to get various performance parameters for better understanding. The unit should contain a facility to measure the power consumed. Self-explanatory operating manuals must be provided with each system. Detailed theory, as well as practical exercises, should be included in the manual.

A compact, comprehensive set of Reciprocating Pump test rig is required for the

1. Study of the construction and operation of a reciprocating pump
2. Determination of total head for a reciprocating pump
3. Determination of power input and efficiency of a reciprocating pump
4. Study of the performance characteristics of a reciprocating pump.

The setup must have the following components

1. Reciprocating pump
2. Pressure gauges
3. Flow measurement unit
4. An electric motor as the drive unit
5. Sump tank
6. Input power measuring arrangement
7. Additional unit for PC operation of the test rig

Minimum specification:

PUMP: Double acting reciprocating pump of size approximately 25 × 20 mm with Air Vessel to discharge about 20 LPM at 20 meters total head.

MOTOR: 1 HP, 1400Rpm, Single-phase, 200/220 volts, AC Supply.

SPEED VARIATION: Stepped pulley reduction "V" belt drive to run the pump at three different speeds.

ELECTRICAL PANEL: Switch and Energy meter for the measurement of input power input.

SUMP TANK: M.S Unit with FRP lining to store sufficient water for independent circulation through the unit.

MEASURING TANK: M.S Unit with FRP lining unit of the suitable size should be provided with standard fittings for measuring water discharge.

STOPWATCH: Digital stopwatch should be provided.

OTHERS: A piping system consisting of pipes, pressure relief valve, gate valve, and fitting with pressure gauge must be provided.

Installation and Training: A 2-day installation post-training should be provided by the bidder.

Other Qualification Criteria:

1. Complete technical specification of the instrument and its necessary parts and accessory items required for running the instrument
2. Scanned copy of the technical brochure and website reference of the same must be included in the bid.
3. There must be a local maintenance center with the availability of the spares in India. The registered address of the local maintenance center should be provided.
4. A declaration from the Principal stating that the spares will be made available for the equipment for at least 5 years from the date of installation.
5. The average turnover of the bidder in the last 3 Financial Years should be at least Rs. 2.0 crores. Relevant documents to be provided.
6. The bidder should have proven track record in Govt. Sector at least for 7 years. POs in favor of the bidder to be provided as proof.
7. A duly signed detailed User List (at least 5) with the concerned person's valid contact details, in India where the instruments are still in the operational condition must be provided for each of the instrument.
8. Copies of at least 5 POs/installation certificates of similar or higher specifications than the quoted instrument from Govt. organizations/ labs/ institutes should be provided. The POs/installation certificate should not be older than 5 years.
9. A copy of the Authorization Certificate issued by the Principal in favour of the Indian agent along with a certified copy of the Agency Agreement between the foreign Principal and Indian agent. Both these certificates must be up-to-date.
10. In case of imported items, a letter in the official letterhead of the principal declaring the Indian agent as their authorized agency to bid. The letter must contain the official tender enquiry number as depicted in the e-portal, must be included with the technical bid. (This must not be clubbed with Authorization Certificate)
11. A duly signed separate compliance sheet of the specification (at every point) mentioned in the technical part along with the deviation (if any). This compliance sheet will not be considered as the technical specification of the instrument.
12. Profit and loss statements and balance sheets of the financial year 2018-2019 (as on year ended, i.e., 31.03.2020) must be provided along with the technical bid.
13. Income tax return (ITR) of the assessment year 2018-2019 must be provided along with the technical bid.
14. Dealership Certificate and Proprietary Nature Certificate (If applicable) must be provided along with the technical bid.
15. Price should include installation.