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NATIONAL INSTITUTE OF TECHNICAL TEACHERS' TRAINING AND RESEARCH



Taramani P.O., Chennai – 600 113.
(Government of India, Ministry of Human Resource Development)

No. NITTTR/Civil dept /CTM/2017-18/

Date:12.02.2018

To

Delivery required by :

QUOTATION DUE DATE

- (a) Please send your quotation within the due date on sealed envelope on or before:
26.02.2018
- (b) write the Ref.No on the envelope

Sl.No.	Description of Items	Approximate Quantity Required	Price Rs. P
1.	<p>Automatic compression testing machine, capacity 2000KN touch screen Indicator, with Analysis & Report Generation Instruments.</p> <p>(Details of Specification enclosed)</p> <p>Note:</p> <p>i) Mention warranty period for the item. ii) GST Registration No. must be furnished. Sales Tax & any other charges should be mentioned separately in each item. iii) GST 5% is applicable for our institute. iv) Indicate the reference and the last date on the envelop. (Enclose Pamphlets, if any for Automatic compression testing machine).</p>	1 NO	

Cover should be addressed:

Name: **Professor & Head of Civil Engg. Dept.**
National Institute of Technical Teachers Training and Research,
Taramani P.O., Chennai – 600 113.
(For terms and conditions please see overleaf)

for DIRECTOR
12/02/18

Terms & Conditions

1. The quotation must specify the period within which the supply could be effected from the date of receipt firm orders.
2. Quotation received after the due date mentioned on the reverse will not be considered.
3. Your quotations should be for materials strictly in accordance with the specifications shown. In case you are offering substitutes state clearly the exact specification etc, of the materials offered Drawing sketches or any other technical data should be submitted separately.
4. The prices quoted should clearly specify charges for delivery of the goods to destination indicated overleaf.
5. The prices quoted should include all packing costs and it will be assumed that packing materials (cases etc..) are non-returnable unless otherwise stated.
6. Sales tax or any other taxes if applicable should be shown separately giving the full rate of taxes for each items giving ex-incident of such levies.
7. The Director reserves the right to accept the whole or part of any quotation without assigning any reason and the lowest or any quotation, will not necessarily be accepted, and the Director's decision shall be the final.
8. Samples must accompany the quotation when so specified or within two days when asked for later.
9. If it is discovered that the materials supplied are not exactly according to the specification, the entire stock will be rejected.
10. We reserve the right to inspect the goods offered at any stage of manufacture / supply at your premises.
11. Any dispute arising out of or relating to this Enquiry shall be deemed to have arisen in Madras and is subject to adjudication of the Madras Courts.
12. Rates quoted once will remain firm for that particular dealing.
13. The quotation should be kept valid for a period of 60 days from the date of opening for acceptance.
14. Payment will be made after confirmation on receipt of the materials in good condition at this Institute (normally within 30 days.) Advance payment will not be entertained at any circumstances.
15. Printed conditions of the firm sent along with the quotation form if any, shall not be binding on us.
16. In case of Printing the Proof should be got approved before final strike.
17. Materials should be supplied at this institute in good condition.
18. Price quoted by the suppliers accepted by the Director is final, and no deviation therefrom will be accepted without the Director's agreement in writing.
19. If the rates are under D.G.S. & D. Please specify the same clearly enclosing necessary documents.

Specification for fully Automatic Concrete testing Machine

System should be fully automatic operated through Desktop/Laptop.

- Should have provision for automatically turning the pump on & off, controlling the set pace rate & switching the machine off under predetermined conditions.
- System should release the pressure at the end of every run & reinitialize at the beginning of every test.
- The pace rate should be maintained by full three term PID feedback control using high torque stepper motors & driver sets.
- Should have fully automated Data acquisition, storage, management & analysis

System should have the following Technical Specifications

- Should meet specifications of IS: 516 & IS: 14858 capacity- 2000KN
- Fully Auto Controlled – operation through Enhanced Digital Indicator (EDI) with touch screen:
 - Laptop or Desktop or Standalone EDI
 - Heavier frame with higher stiffness & better aesthetics
 - DC motor powered dual stage pump effective rapid approach for daylight closure
 - Pace rate accuracy measured & displayed in the form of bar graph
 - Noiseless sound operation
 - Oil filled ball seating with heavy duty upper platen for increased stability
 - High degree of control from start to finish
 - Door closed safety feature
 - 10.1 inch TFT LED backlit display, Resolution: 800x4800
 - internal memory should have capacity >1500 completed tests, export to USB & wi-fi based cloud storage possibility
 - Display of load Vs. time graph in real time
 - Wi-fi enabled for data transfer which allows operation in standalone mode
 - Capable of 2 way communication through FTP
 - Automatic pace rate control at a preset value
 - Automatic stress determination & display
 - Overload safety protection
 - Self-aligning platen with fast accessory change capability
 - Configurable engineering unit for machine selection
 - Pre-defined machine capacities for each engineering unit should be selective from the menu
 - Flexible calibration points
 - Peak load, peak stress, unique record number in the display
- EDI should have provision to configure more than one mode, mode-1- compression / mode-2- flexure / mode-3- prism testing / mode-4- split tensile. Each mode should have independent calibration points & it should be flexible
- Dynamic calibration should be possible
- Menu driven sample details
- Data downloading through pen drive
- Option to set break point
- Record View and Print

- Peak stress calculation based on sample type & shape
- Password protection for system & calibration setup
- 2% overload facility to calibrate the machine up to full capacity
- Calibrated operating range from 10% to 100% of the machine capacity, , accuracy $\pm 1\%$ of the applied load.
- Start, stop, pause & reset
- Over travel safety protection
- Should have provision for integrating with online monitoring software with following features:
 - ✓ Online monitoring during test
 - ✓ test with a live graph & ends with a report & online data transfer
 - ✓ Dynamic cube status report, Dynamic strength reports (max., min., & avg.)
 - ✓ Comprehensive date wise/plant wise report

Maximum clearance between platens- 320mm to 370mm

Maximum distance between side plates -290mm to 340mm

Platen size -222mm dia

Piston diameter -222 mm dia

Piston stroke -50mm

Specimen size to be tested -100mm, 150mm cube & 100mm,150 mm dia cylinder

Complete unit should comprises of:

Loading unit:

Should have fully welded construction having a top cross head, base & solid side plates with precision ground hydraulic piston fixed to the base. The platens of the machine should be hardened, ground & polished. Heavy duty upper platen with oil filled ball seating arrangement for increased stability. Various size specimens, suitable size spacers should be provided.

Pumping Unit: Should be dual stage pump allowing fast approach of the platens, for daylight closure & also should allow precise control over the load application; Feedback on the loading rate by pace rate bar on the display. System should be compatible to flexural test attachment upgrade in future. Prices should include Installation, Commissioning and Training at NITTR Chennai, Bidder should comply the each point by mentioning the offered system's specification. Terms like Complied, Yes, etc., should not be mentioned

Enhanced Digital Indicator (EDI):

10.1 inch TFT LED backlit touch display with resolution: 800x480 (RGB) & features with integral load pacing bar display, maximum load & stress result display, USB output & should be Wi-Fi enabled. >1500 completed tests storage in the internal memory & these results in English, Metric of SI units. Down load able to PC through USB.
Online monitoring software

TERMS AND CONDITONS

1. The bidder should be the manufacturer or authorized dealer of the manufacturer. Copy of Authorization certificate should be enclosed along with the bid. Tenders without authorization will summarily be rejected
2. The bidder/manufacturer should provide user's list & at least three performance certificates of similar instruments from the clients, preferably govt. dept. / CSIR lab. / Educational institute etc to prove installation base of manufacturer's instruments.
3. The supplier / manufacturer (whose instruments are being offered), should have full-fledged service set-up in Tamil Nadu for maintenance of the supplied instruments through Annual maintenance contract also. The detailed address should be produced with technical bid and proof should be attached.
4. The instruments should be minimum of warranty period for One year including calibration & charges for the Annual Maintenance contract should be mentioned separately.
5. The manufacturer / supplier should have ISO 9001 certification.
6. The annual turnover of the manufacturer, whose instruments are being offered, should be more than Rs. 50 Cr. in last three years. Copy of auditor's certificate should be enclosed.
7. The instruments should be supplied with NABL accredited calibration certificate, wherever applicable.
8. The manufacturer should have to provide training at our premises for data analysis & result interpretation of the instrument at free of cost.
9. Bidder/Manufacturer should enclose details of service engineers