

NOTICE INVITING QUOTATIONS

Date: 22 February 2014

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Subject: Purchase of Biaxial Testing Machine.

Indian Institute of Technology Delhi invites Bids (Technical bid and Commercial bid) from eligible and experienced OEM (Original Equipment Manufacturer) OR OEM Authorized Dealer for supply of **Biaxial Testing Machine** with three years on site comprehensive warranty from the date of successful installation as per terms & conditions specified in the tender document, which is available on CPP Portal <https://eprocure.gov.in/eprocure/app>

TECHNICAL SPECIFICATION:

Minimum Technical specifications of **Biaxial Testing Machine** are as follows:

- (i) **Loading Capacity:** ± 100 kN along each axis (Synchronized Tensile/Compressive Loading along two perpendicular directions). Rigid Loading Frame (Frame Stiffness > 550 MN/m).
- (ii) **Displacement along each axis:** ± 50 mm along each axis at 0.01 Hz Loading Frequency and ± 1 mm at 25 Hz Loading Frequency.
- (iii) **Loading Frequency:** Static (ramp) to 25 Hz.
- (iv) **Minimum space for specimen mounting:** 500 mm x 500 mm (pin to pin distances).
- (v) **Specimen Loading Control:** Options for both displacement and load control loading independently along each axis.
- (vi) **Load Cells:** ± 100 kN, ± 10 kN dynamic capacities along each axis, accuracy: 1% readout or better, Resolution: 0.05 % of full range or better.
- (vii) **Displacement Transducers: Range** ± 50 mm along each axis, accuracy: 1% of readout or better, Resolution: 0.05 % of full range or better.
- (viii) **Sampling Rate for Load cell and displacement transducers:** Minimum 2 kHz.
- (ix) Data acquisition and analysis, signal conditioning and control hardware and software.
- (x) **Loading rate:** 0.01 mm/sec – 5 mm/sec (displacement control) and 0.01 kN/sec – 1 kN/sec (Load Control) or better.
- (xi) Grips (Tension/Compression)
- (xii) Programmable Frequency, amplitude, phase difference and waveform of loading along each axis with standard waveforms – Sine, Triangular, Square and Ramp Signal.
- (xiii) Necessary accessories.

Optional Items:

- (i) **Load Cell:** ± 50 kN dynamic capacity along each axis, accuracy: 1% of readout or better, Resolution: 0.05 % of full range or better.
- (ii) Video extensometer suitable for strain measurement over 5 cm x 5 cm area, resolution: 1 micro meter.



Terms and conditions:

- (1) **Preparation of Bids:** 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 item wise price for the items mentioned in the technical bid. The Technical bid and the financial bid should be submitted in 2 Envelopes.
- (2) **Pricing:** Quote prices at FOB/ CIF New Delhi, inclusive of installation and training charges.
- (3) **Terms of Payment:** Payment will be made on the basis of an invoice after delivery and satisfactory installation. If different conditions exist, please specify.
- (4) **Validity:** Quotations should be valid at least for a period of 90 days.
- (5) **Dealership Certificate:** Letter from manufacturer should be attached for authenticity of dealership/agency.
- (6) **Proprietary Certificate:** If the items are proprietary, furnish a copy of the certificates.
- (7) **Compliance statement:** Include a statement of compliance of all the specifications.
- (8) Warranty (minimum three years) should be clearly mentioned.
- (9) Brochure detailing technical specifications and performance, list of industrial and educational establishments where the items enquired have been supplied must be provided.
- (10) The technical bid will be opened first and it will be examined by a technical committee which will decide the suitability as per our specification and requirement. The financial offer/bid will be opened only for the offer/bid which technically meets all our requirements as per the specification
- (11) The Institute/Committee reserves the right to reject any or all offers without assigning any reason.
- (12) The offer/bid should be exclusive of taxes and duties, which will be paid by the purchaser as applicable. However the percentage of taxes & duties shall be clearly indicated. The price should be quoted without custom duty and excise duty, since IIT Delhi is exempted from payment of Excise Duty and is eligible for concessional rate of custom duty. Necessary certificate will be issued on demand.
- (13) **Submission of Quotations:** Technical and commercial bids in separate envelopes should be submitted to “**The Head, Applied Mech. Dept., Indian Institute of Technology Delhi, Hauz Khas, New Delhi – 110 016, India**” latest by **4.00 PM on 17 March 2014**. The offers received after the due date and time will not be considered.


(Prof. A. K. Jain)

Chairman, Purchase Finalization Committee