



Department of Metallurgical and Materials Engineering
Indian Institute of Technology, Madras, Chennai – 600 036

Enquiry No.

MET	2013	009	NVRK
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Date: 27.11.13
Due Date: 9.12.13

Dear Sirs,

1. Quotations are invited **in duplicate** for the various items shown below / overleaf / enclosed list.
2. The Quotations duly sealed and superscribed on the envelope with the reference No. and due date, should be addressed to the undersigned so as to reach him on or before the due date stipulated above.
3. The Quotations should be valid for sixty days from the due date and the period of delivery required should also be clearly indicated.
4. If the item is under DGS & D Rate contract, Rate Contract Number and the price must be mentioned. It may also please be indicated whether the supply can be made direct to us at the Rate contract price. If so, please send copy of the R.C. (Please note that we are not Direct Demanding Officers).
5. Relevant literature pertaining to the items quoted with full specifications (and drawing, if any) should be sent along with the Quotations, wherever applicable. Samples if called for, should be submitted free of charges, and collected back at the supplier's expenses.
6. **Local Firms:** Quotations should be for free delivery to this Institute. If Quotations are for Ex-Godown, delivery charges should be indicated separately.
7. **Firms Outside Chennai :** Quotations should be for F.O.R Chennai. If F.O.R. consignor station, freight charges by passenger train / lorry transport must be indicated. If Ex-Godown, packing, forwarding and freight charges must be indicated.
8. The rate of Sales / General Taxes and the percentage of such other taxes legally leviable and intended to be claimed should be distinctly shown along with the price quoted. Where this is not done, no claim for Sales / General Taxes will be admitted at any stage and on any ground whatsoever. **The taxes leviable should take into consideration that we are entitled to have Concessional Sales Tax applicable to non-Government Educational Institutions run with no profit motive for which a concession. Sales Tax Certificates will be issued at the time of final settlement of the bill.**
8. Goods should be supplied carriage paid and insured.
9. Goods shall not be supplied without an official supply order.
10. Payment: Every attempt will be made to make payment within 30 days from the date of receipt of bill / acceptance of goods, whichever is later.

Yours faithfully,

1) 10KN Universal Testing Machine - 1 No.
Specification enclosed.

(Handwritten initials)

(Signature)
for The Head of the Department
The Project Co-ordinator
Met. & Materials Engineering
IIT Madras, Chennai – 600 036

*Strike Out whichever is not applicable.

Summary of specs/features for 10 kN Universal Testing Machine

S.No	Specification/Features(by IIT)	Compliance	Remarks
1.	<p>Standard features – Compression/flexure testing</p> <p>Digital crosshead drive system with fully variable speed control & crosshead extension and load measurement channels</p> <p>Closed-loop control and data acquisition electronics integrated with the machine</p> <p>Test speed range: 0.005 (min) to 800 mm/min & crosshead return speed: 800 mm/min or below</p> <p>Pre-loaded ballscrew drive and crosshead guidance columns.</p> <p>Maximum crosshead travel of atleast 1100 mm</p> <p>Strain measurement accuracy: Meets or exceeds ASTM E 83, BS 3846, ISO 9513 and EN 10002-4 standards.</p> <p>Load measurement accuracy: Meets or exceeds ASTM E 4, BS 1610, DIN 51221, ISO 7500/1, EN 10002-2, JIS B7721, JIS B773 and AFNOR A03-501 standards.</p> <p>Minimum horizontal test space: 400 mm</p> <p>Automatic recognition and calibration of transducers and user selectable system of units: SI/metric/US</p> <p>Voltage 250 V</p>		

Compression anvils/platens

- Hardened and chrome plated stainless steel which includes LVDT mounting holes.
- Should sustain 100 kN

Load cell

Tension/Compression Load Cell, Capacity: 10 kN with a Type O female fitting.

Computer Interface

Materials testing software with a windows operating system & graphical user interface designed for ease of use & flexibility. The minimum features expected in the software must include:

- Live runtime test plots
- Report generation & saving and retrieval of test methods and data
- On-line help and reference guide
- CD for interactive user-learning
- Automatic calibration and balancing of transducers
- Compression Test Application Package
- Data Viewer for displaying raw data points during test & use defined ASCII export of raw data.
- Any other features may be explicitly mentioned.

Installation & training

- *Complete Installation* must be done by the service engineer/representative of the company

	<ul style="list-style-type: none">• Demonstration of the functioning of the machine• Installation of the software and integrating with the machine• Calibration procedures, compliance correction procedures• Testing of specimens to confirm/verify test method.• Review of test method results <p>Service after sale & Warranty</p> <ul style="list-style-type: none">• First-year free service and technical support agreement• Guaranteed availability of service after sale in India preferably in Chennai• Software updates during the agreement period <p>Video recording and playback module</p> <p>If available, may be separately quoted</p> <p>Payment: Terms and conditions</p> <p>May be cleared ^{by} specified in the quotation</p> <p>Miscellaneous</p> <p>Any other relevant features may be mentioned</p>		
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