



पदार्थ विज्ञान एवं अभियांत्रिकी विभाग
भारतीय प्रौद्योगिकी संस्थान कानपुर
Department of Materials Science and Engineering
Indian Institute of Technology Kanpur
कानपुर - 208 016 Kanpur-208 016

Enquiry Letter for Quotation of Vickers Micro-indenter

Enq. No.: STC/MET/2015096/VMI

Enquiry Dated: Oct. 09, 2015

Closing Date: Oct. 30, 2015

Sealed quotations (in two separate envelopes namely “TECHNICAL ONLY” and second ‘FINANCIAL’ bid) are required for **Vickers Micro-indenter (Automated)**. The specifications for the equipment are in the addendum. The closing date for the above item is Oct. 30, 2015. The prospective suppliers are required to send quotation in two parts in sealed envelopes, as “**Technical Bid**” and “**Financial Bid**”. The two separate and sealed envelopes should be clearly marked appropriately as “Technical Bid” and “Financial Bid”.

(i) The **Technical Bid** should contain detailed technical specification of the product being offered (with model number and make/brand) and should not mention any price. This should also mention the guarantee and complete spare parts must be included that are required for functioning of the unit.

(ii) The **Financial Bid** should include the detailed price quotation clearly including the cost of the equipment (with model number and make/brand name), taxes, service charges if any, shipping and handling charges.

Terms and Conditions:

1. Maximum educational discount, if any should be offered
2. Validity of quotation should be at least for 60 days
3. Prices should be on CIF and FOB separately (if imported)
4. Prices should include the installation and training cost
5. Warranty should be for at least two years after installation
6. Normal payment terms for the Institute will be applicable (70%-30% or 90%-10% on delivery of the remaining after satisfactory installation/ inspection)
7. Quotation should carry proper agency certificate, proprietary certificate, etc.
8. An undertaking that the vendor will supply all the spares and services for the equipment for at least 5 years from the date of commissioning
9. Delivery must be within 3 months

Kindly send the Technical and Financial bids in sealed envelopes latest by Oct. 30, 2015 by 5pm, to:

Dr. Kantesh Balani
Faculty Building, Room 412,
Dept. of Materials Science and Engineering
IIT Kanpur, U.P. 208016, India.
e-mail: kbalani@iitk.ac.in

Technical Specifications for Vickers Micro-indenter (Automated)

Parameter	Specifications*
Indenter Type	Vickers Micro-indenter (Automatic)
Load Range	1 gf – 2kgf (0.0098 -19.6N) → Required 10 gf - 10 kgf (0.098-98 N) → Desired (Optional Component)
Dwell time	1 – 60 s
Loading speed	15-70 $\mu\text{m/s}$
Tip Type	Diamond
Imaging/ Camera	<ul style="list-style-type: none"> - Results should be displayed on computer screen - Must be able to capture indent images - Need attached CCD camera (minimum 3.2 mega-pixels)
Calibration samples	Must provide calibration standard samples (ISO, ASM/ ASTM, DIN standard) for three hardness ranges(low, medium and high hardness)
Optics	Optical objectives of 5X, 10X, 40X/50X, and 100X Eyepiece of 10X
Stage control	Automatic as well as knob controlled stage (1 μm) Stage movement size 55 x 55 mm
Spares	An additional Vickers indenter tip must be provided with the system
Software	<ul style="list-style-type: none"> - Complete set to provide automatic indents or choosing the number of indents and providing their locations - programmable - The instrument should be installed with latest available version of software for control, operation and analysis. - The supplier should upgrade the software as and when the upgradations become available for at least five years from installation - Should have intelligent calibration logic.
Data Output/ Display	<ul style="list-style-type: none"> - Results should be displayed - Raw data and results MUST be exportable in ASCII or Excel or any other format.
Repeatability	<ul style="list-style-type: none"> - 0.5% or less for 500 Hv at 500 gf
Computer/printer/ UPS	<ul style="list-style-type: none"> • The equipment should come with a high performance computer (i3 equivalent ~3.7 GHz processor, with min 500 GB hard-disk, and 24" or more LED HD screen, with all the requisite software installed on it. • Automatic duplex laser printer (b/w) is also to be supplied along with the system • Required UPS must also be supplied with system
Safety Norms	<ul style="list-style-type: none"> • The instrument should be compliant with international norms for safety and environment

Installation, Commissioning and Training	<ul style="list-style-type: none"> •The delivery of the equipment should be considered complete only after successful commissioning of the instrument •The pre-installation requirements should be communicated to IIT Kanpur well in advance of the installation •The Installation, commissioning and training should be done only by well-trained factory engineers at NO ADDITIONAL COST. •The supplier should provide training to at least two candidates at the installation site to make them familiar with smooth operation of the instrument
After-sales Service	<ul style="list-style-type: none"> •The supplier should provide a prompt after-sales service such as regular instrument maintenance, troubleshooting and fixing •The list of service centers in India should be included.
Spares	<ul style="list-style-type: none"> •An undertaking that the vendor will supply all the spares and services for the equipment for at least 5 years from the date of commissioning
Warranty	Warranty of 2 years with 1 year AMC must be provided at no additional cost with the system.
Annual Maintenance Cost	Include the cost of annual maintenance for each year for time period after three years after the guarantee/ warranty period. Provide the amount and the terms, Note that those providing better after sales service and support with written evidence will be given preference
Other	Please provide the quotation of the “FULL SYSTEM” that system MUST FUNCTION with the listed items, and should be able to utilize all its features.
<p>*Additional optional accessories should be indicated separately along with their price. The above specs are desirable and the actual numbers achievable for your system should be indicated.</p>	