

Department of Materials Science & Engineering
Indian Institute of Technology Kanpur

Enquiry: MSE/KM/05 dated 19-01-2018

Closing Date: 08-02-2018 (before 2:00 PM)

We need a standard digital fully automatic Rockwell hardness and Rockwell Superficial tester:

Basic Needs:

1. Machine should be designed for measuring hardness of metals & alloys of all kinds (hard or soft).
2. Nose mounted indenter with data logging software. Digital microprocessor based panel where we can get hardness in digital mode.
3. Three modes of operation viz. Motorized automatic mode, Motorized mode & Manual mode.
4. Automatic weight selection on the basis of different scales.
5. It is preferred to have both the systems (Rockwell hardness and Rockwell Superficial tester) in an integrated one. If not, please give two separate quotes for both the systems. Committee have right to purchase both the system or any one system.
6. Committee can reject the tender without giving any justification.

Additional desirable needs:

1. Motorised lead screw
2. Optional for plastic hardness

Technical Specification

Test Loads (kgf)	60, 100, 150 (Rockwell)	60, 100, 150 (Rockwell) & 15, 30, 45 (Rockwell Superficial)
Initial Loads (kgf)	10	10 (Rockwell) & 3 (Rockwell Superficial)
Max. Test Height (mm)	295	295
Depth of Throat (mm)	148	148
Scales	Rockwell A, B, C, D, E, F, G, H, K, M, P, R, S, V, L in Nos. 1 to 15 resp.	Rockwell A, B, C, D, E, F, G, H, K, M, P, R, S, L, V, 15N, 30N, 45N, 15T, 30T, 45T in Nos. 1 to 21 resp.
Least Count	0.01 to 0.1	0.1-0.01 For Rockwell & 0.02 to 0.2 For Rockwell Superficial
Load Control	Automatic (Loading, Dwell, Unloading for major load)	
Dwell Time	1 to 99 seconds selectable	

Power Supply	220 V, Single Phase, 50 Hz, AC, (3 Wire System)	
Standard Accessories	Rockwell Diamond indenter (4) Testing Table and V groove arrangement Steel Ball Indenter (4) Test Blocks (standards for different scales) 2 sets , Cover (2) ,Manual etc	Superficial Rockwell Diamond indenter (4) Testing Table and V groove arrangement Steel Ball Indenter (4) Test Blocks (standards for different scales) 2 sets , Cover (2) ,Manual etc

Instrument is for research and teaching purpose and it should have suitable safe precaution.

You are requested to send quotation (Sealed and in two bid system) for the above mentioned equipment with all details. All cost, terms and conditions should be clearly mentioned in the quotation. If you are the only authorized company to provide the services then please enclose proper authorization with the quotation in this regard. Proprietary certificate should be enclosed with the quotation. Minimum warranty will be two year. Prior experience of supply in IIT/NIT system is essential. Local (Kanpur/Lucknow/Delhi) authorised person/authorised service centre will be given preference.

The quotation in a sealed envelope with two bid system (technical & financial separate), in all its completeness, should reach us by **08/02-2018 (before 2:00 PM)** to

Following address:

Incharge
Physical Metallurgy Lab
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Kanpur 208016