

**SPECIFICATION FOR MICRO HARDNESS TESTER
SPECIFICATION NO.MECH/M&P/3100/GM/08**

1.0 IMPORTANT INSTRUCTIONS TO TENDERERS FOR FILLING TECHNICAL BID

- 1.1 Bidders are required to give clause wise comments on the technical specifications, confirming compliance/non-compliance with details of deviations if any along with their effect on the performance. Back references to be avoided, offers are likely to be ignored in case of non-compliance of these instructions for furnishing the information.
- 1.2 Unless otherwise stated, latest alterations/ revisions of specifications/ standards/ drawings shall be applicable. In respect of safety standards and environmental standards relevant to the machine, the machine manufacturers shall ensure compliance with international (CE/ISO/DIN/JIS)/National standards (IS) (where applicable).
- 1.3 Tenderers should offer and quote for all the specified concomitant accessories, as these are considered essential for commissioning and utilization of the machine. Even if bidder does not recommend the purchase any of these accessories, the price must be quoted for comparison purposes and their recommendation/suggestion indicated in the offer. Tenderers should also quote for optional accessories, spares and consumable spares as asked in the specifications.
- 1.4 In case, any item is required in sets, please specify nos./pieces per set. This is essential for proper technical evaluation of the offer. Offers received without this may be considered as incomplete and liable to be rejected.
- 1.5 The bidder should quote only for the specified make of sub-assemblies and equipment wherever specified. Makes of sub-systems other than the specified ones will normally not be acceptable. In case, some other make is quoted, specific reasons for the same including its features/advantages over specified makes must be brought out in the offer.
- 1.6 In case there is a contradiction in any information provided (some parametric values given in the specification and those given in the brochure or some other document enclosed by the tenderer), unless specifically mentioned in the deviation cum confirmation statement the values as given in the specification shall be taken as confirmed by the tenderer and offer evaluated accordingly.
- 1.7 The Purchaser may accept internationally accepted alternative specifications which ensure equal or higher quality than the specifications mentioned in the Technical Specification. However, the decision of the Purchaser in this regard shall be final.
- 1.8 Purchaser reserves the right to verify the details submitted by the bidder by actual site visits.
- 1.9 Other terms & condition of the contract will be as per Indian Railway Standard conditions of contract.

PREPARED BY	CHECKED BY	APPROVED BY
JE/M&P	SSE/M&P	DY.CPE-I

2.0 PURPOSE :-

Micro hardness tester is required for testing hardness of small components like tapping screw, drill bits etc which cannot otherwise be tested using available hardness testing machines. Hardness tester shall be capable of testing hardness in scales especially HV, HB and HRC.

3.0 DESCRIPTION AND SCOPE OF SUPPLY :-

The scope of supply covers design, supply installation and commissioning of Micro hardness tester and application for testing hardness of small components like tapping screw, drill bits etc as per the specifications. Other concomitant accessories / equipment which the manufacturer considers essential to make the machine fully operational when installed and commissioned with requirement of utilities, etc if any, should be clearly indicated by tenderer in the offer.

- 3.1 The total value of the offer will be calculated on.
 - a. The cost of the basic machine.
 - b. Cost of the concomitant accessories according to tenderer specification.
 - c. Cost of any other accessory treated as concomitant accessory.
 - d. Application duties and taxes, insurance, freight installation and commissioning.

4.0 GENERAL FEATURES :-

- 4.1 The instrument shall be portable in nature.
- 4.2 It shall be capable to measure hardness in BHN, HRC and HV.
- 4.3 It shall be suitable for various ferrous and non-ferrous metals like Steel, Cast iron, Stainless steel , Brass, Bronze, Aluminum and aluminum based alloys.
- 4.4 It shall be suitable to measure hardness of drill bits, steel shots, nuts, bolts, case carburizing.
- 4.5 The machine should be capable of operating in severe workshop conditions of dust, temperature between 0° C to 50° C and humidity up to 98%.The system should be capable of working under these conditions.
- 4.6 The following literature in English should accompany the machine on delivery.
 - a) 02 copies of operating and services manuals.
 - b) 02 copies of spares catalogue and part list.

5.0 CONCOMITANT ACCESSORS

- 5.1 The tenderer shall supply a list of concomitant accessories, which will be supplied along with the machine. The cost of each listed concomitant accessory should be quoted separately. Wherever for any reason the cost of any concomitant accessory is included in the basic price of the machine, the same should be specifically mentioned.
- 5.2 Any other accessory, which in the opinion of the tenderer can contribute to higher production rates, should be indicated and quoted separately.

6.0 SPARES :-

- 6.1 The tenderer should furnish details of spares covered under warranty.
- 6.2 The tenderer should be furnishing the price list of spare parts required for two years normal maintenance of the equipment.

PREPARED BY	CHECKED BY	APPROVED BY
JE/M&P	SSE/M&P	DY.CPE-I

6.3 List of recommended spares for normal maintenance after expiry of warranty period to till useful life of the equipment.

6.4 Life estimated/expected for each equipment and its sub assembly.

7.0 COMMISSIONING AND PROVING OUT :-

7.1 The Successful tenderer shall have to commission the machine within 15 days from the date of receipt of machine at RCF, Kapurthala.

7.2 The successful tenderer shall have to prove out the performance of the machine at RCF premises to the entire satisfaction of the consignee.

8.0 DEVIATION:

Any deviation from the above stipulations shall be brought out clearly giving advantages of the proposed deviation and approval shall be taken from Dy.CQM-II before supply of material to RCF.

9.0 ELIGIBILITY CRITERIA:

9.1 The tenderer shall be registered on IREPS website (www.ireps.gov.in) to participate in the tendering process.

9.2 The tenderer shall have established quality control system and organization to ensure adequate control at all stages of the manufacturing process.

9.3 The tenderer shall provide a performance statement giving a list of major supplies of same/similar equipments effected in last 5 years to the reputed organizations giving details of the order no. and date and the quantity supplied and whether the supply was made within the delivery schedule. Such period shall be reckoned from the date of opening of tender.

Tenderer not submitting the requisite information may note that his offer is liable to be ignored.

10.0 TECHNICAL LITERATURE:-

10.1 One copy of the printed illustrative catalogue showing isometric view/sketch & features of the machine and its elements must be enclosed with each copy of the bid.

10.2 The successful tenderer will have to furnish for each machine 02 copies of spare parts catalogue giving the part list number of each component with exploded views and assembly drawings, maintenance manual, trouble shooting guide, operational manual of the machine.

11.0 SPECIAL FEATURES :-

Special features incorporated into the machine, if any shall be indicated separately by the tenderer, clearly indicating the advantage of these features.

12.0 WARRANTY :-

The warranty condition of contract will be as per IRS conditions or as quoted by the tenderer whichever is later.

Note: Tenderer to furnish following detail of the Micro Hardness Tester offered

S.no.	Technical Parameter	Offered by Tenderer

PREPARED BY	CHECKED BY	APPROVED BY
JE/M&P	SSE/M&P	DY.CPE-I

PREPARED BY	CHECKED BY	APPROVED BY
JE/M&P	SSE/M&P	DY.CPE-I