

No	Description	Required	Offered
0	<b>Application:</b> The Portable Handheld Hardness tester is intended to be used in shop floor for hardness testing of turbine blades, governing parts, spindle of turbines.		Vendor to comply in this format column
2.0	<b>Specific application :</b> Minimum tip radius of inlet edge of blade=3mm Minimum thickness of blade=6mm Diameter of spindle=50 to 150mm Hardness value to be tested = >230BHN, >=150HV, >=35HRC Surface finish of job = Ra 0.4micron or more	Suitable tester to meet clause 2.0	
3.0	<b>General requirements</b> Testing equipment and method should be based on UCI method as per ASTM A 1038 or any international standard. Conversion of Hv, HB, HRC as per DIN 50150 or ASTM E 140 Suitable probe for above application at 2.0 & 1.0 and probe of HV10 load for blade application. Minimum 4 digits display should be on LCD or others for good visibility. Portable, handy and light weight not more than 500gm. Rechargeable standard batteries Suited in working temperature of 0-50 deg. C	Suitable tester to meet clause 3.0	
4.0	<b>Accessories:</b> Probe assesories i.e. cable, test supportings fixtures, guiding devices, calibration test blocks should be provided. Attachment for flat surface as well as narrow curved surface should be provided. Suitable Devices to guide probe movement in order to avoid hand holding on specific application. Battery chargers	Suitable tester to meet clause 4.0	
5.0	<b>General Conditions:</b> Vendors to comply that quotation covers all the items (i.e software, cables, Connectors, Adapters, etc.) even it is not specified in item list. The price quotation at 4.0 must be on single piece basis. Vendors to comply that they shall commission the instruments at our works. During commissioning Party should also demonstrate interfacing of instrument & details of software. The party will provide service in future if any problem arises during operation. The party will provide operation, service and trouble shooting manuals containing detailed circuit diagram. The party will quote necessary spare parts / accessories items for minimum 05 years of satisfactory operation of Equipment even if not included at clause 4.0 The party shall provide calibration certificate of instruments and explain the calibration procedures of instrument during commissioning. The party should quote for a contract of calibration in future. The party shall provide details of customers containing addresses, telephone & e-mail ,model supplied, year of commissioning etc to examine the performance of instruments and also the party can demonstrate the instrument at our works. Guarantee period of instrument should not be less than 18 months counted from date of dispatch or 12 months counted from the date of commissioning.		

<b>Spares:</b>		
Rechargeable batteries		
Cables		
Battery charger.		

7.0	<p><b>QUALIFYING CONDITIONS:</b></p> <p><b>Only those vendors(OEMs) should quote who have supplied and commissioned at least one portable hardness tester of same size in the past ten years(on the date of opening of tender) and referred equipment is presently working satisfactorily for more than one year after commissioning(on the date of opening of tender).</b></p> <p><b>The following information is to be submitted by the vendor about the companies where similar equipments have been supplied. This is required for all vendors for qualification of their offer.</b></p>
1.21.2	Name of the customer / company, where referred machine(s) is(are) installed.
1.21.3	Complete postal address of the customer.
1.21.4	Month & Year of Commissioning.
1.21.5	Application for which the machine is supplied.
1.21.6	Name and designation of the contact person of the customer.
1.21.7	Phone , FAX no. and email address of the contact person of the customer.
1.21.8	<p>Original/authenticated Performance Certificate from the customer regarding satisfactory performance of the machine supplied to them ( Original certificate or through E-mail directly from the customer). The original performance certificates may be returned after verification by BHEL, if required.</p> <p>BHEL reserves the right to verify the information provided by vendor. In case the information provided by vendor is found to be false/incorrect, the offer shall be rejected.</p>