



BHARAT HEAVY ELECTRICALS LIMITED
 Heavy Power Equipment Plant, Ramachandrapuram,
 Hyderabad - 502 032. INDIA.
 Purchase Dept. : 040 - 23184325
 E-mail: asailoo@bhelhyd.co.in :

Date : _____
 Due Date : _____
 Supplier Qtn. No.: _____
 Date : _____

TENDER DOCUMENTS TO BE FILLED BY THE SUPPLIER FOR SUPPLY OF PORTABLE HARDNESS TESTER - QTY - 1 No

ADDRESS OF THE SUPPLIER :


TELEPHONE NOS.:

E-MAIL ADDRESS :

Sl.No.	Description for BHEL Requirement.	Offered	Deviations	Remarks
	PURPOSE: The instrument is required for checking hardness for the accuracy of castings, forgings and heat treatment processes during the inspection of NI-hard rolls, HI-chrome liners, impeller forgings, spacer forgings etc.,			
1.0	PREQUALIFICATION REQUIREMENT : a) The suppliers shall give a list of atleast two customers with contact numbers/email id's to whom similar instruments are supplied, preferably Govt./ public Sector b) Performance certificate from the customers for the similar kind of instrument from atleast ONE customer has to be submitted.			
	Technical Details of the Portable Hardness Tester:			
2.0	Principle	: Leeb hardness measurement		
3.0	Accuracy	: $\pm 0.5\%$ @ HL = 800 / ± 4 HL		
4.0	Display	: Large graphic LCD with EL backlight		
5.0	Hardness Scale	: HRC, HRB, HB, HV, HRA etc., (If in case HL, shall be auto convertible to these units)		
6.0	Measuring range	: up to 650 BHN up to 950 HV up to 70HRC up to 100 HRB		
7.0	Impact Device	: D type (Standard)		
8.0	Materials	: Almost all ferrous & non ferrous materials		
9.0	Memory	: To be specified		
10.0	Statistics function	: Average / Max / Min / Value		
11.0	Indicator	: Lowbattery		
12.0	To be inline with ASTM A 956 standard	: vendor to agree & conform		
13.0	Power Supply	: Pen batteries (vendor to specify type)		
14.0	Working environment	: 0 to + 45°		
15.0	surface hardness to be measured : flat as well as curved	: vendor to agree & conform		
16.0	Dimension in mm (shall be portable carrying & handheld type)	: vendor to specify		
17.0	Net weight in gms	: Vendor		
18.0	Standard accessories to be the part of main equipment which includes the following (and the price shall be included in main equipment price):			
18.1	Digital display unit	: vendor to agree & conform		
18.2	Brush for cleaning probe	: vendor to agree & conform		
18.3	Carrying case for impact device & main equipment	: vendor to agree & conform		
18.4	Reference block for D type impact device-01 No	: vendor to agree & conform		

	A set of rings for hand testing on curved surfaces (dia 10 mm to 500 mm)	vendor to agree & conform	
18.5	Impact device can be used in all directions as per ASTM A 956 STANDARD		
19.0	In case of the offer from dealer/agents, authorisation letter shall be submitted from the OEM for the supplies & servicing of hardness tester		
20.0	Supplier shall furnish technical leaflet of the Poratable hardness tester.		
21.0	Supplier shall submit the calibration certificate along with the equipment		
22.0	Two sets of operating instructions and maintenance manuals along with a softy copy shall be furnished along with		
23.0	Pre-inspection at vendors works by BHEL engineers before despatch. Vendor shall demonstrate all features of the Poratable hardness tester		
24.0	After receipt of the Poratable hardness tester at BHEL, service engineer of supplier shall take responsibility to Commission and demonstrate its features to BHEL 's technical personnel.		
25.0	The Poratable hardness tester shall be guaranteed for satisfactory performance for atleast one year from the date of commissioning at BHEL.		
26.0	Delivery Period.		
27.0			


 B. RAMAKRISHNA
 AGM/TD


 THIRUMALESH KANDULA
 Sr. Engineer/ M&S(CWS)


 MANOJ KUMAR
 Engineer/ QC (F&P, CW)