



BHARAT HEAVY ELECTRICAL LTD.

COPROPRATE R&D, VIKASNAGAR

HYDERABAD 500093

SPECIFICATION FOR PORTABLE SURFACE ROUGHNESS TESTER

SPECIFICATION NUMBER: QE-2016-827-RD39-SPEC-03

A. Application:

The Portable Surface Roughness tester is intended to be used in shop floor for checking of surface finish of blades, Rotor, impellers etc. for turbines and compressors. The surface finish of components on which surface roughness is to be measured is 0.1 micron or higher.

B. Technical Requirements

Sr. No.	Description	Specification	Vendor Compliance
1	Measurement Range	Portable surface roughness tester shall be suitable for measuring surface finish of components from 0.1 μm to 25 μm Ra	
2	Standard	Testing equipment and methods should meet ISO 4287 or any international standard.	
3	Evaluation parameters	Ra, Rz, Ry, Rt at least.	
4	Display	LCD (minimum 6 cm) with good visibility	
5	Portability	Portable, handy and light weight. Drive Unit shall be separable from the display unit and attachment to display unit shall be through a cable.	
6	Power Supply	Rechargeable batteries and AC adapter	
7	PC interface	USB port	
8	Temperature	Working temperature: 5°C - 50°C	
9	Extension rod	50 mm (minimum) extension rod shall be provided.	
10	Attachment	Suitable adopter for height gauge mounting shall be provided.	

C. General Requirements:

Sr. No.	Description	Vendor Compliance
1	Vendors shall quote all necessary items/accessories required for functioning/operation of the equipment (i.e. software, cables, connectors, charger, adapters, calibration/roughness specimen, carrying bag, etc.) even it is not explicitly specified. The quotation must be on single piece basis.	
2	Vendors shall provide training for four persons at our works. During training the vendor shall also demonstrate interfacing of equipment and details of software and	
3	The vendor shall provide calibration certificate of instruments and explain the calibration procedures of instrument during training.	
4	The vendor shall provide one set of operation manual.	
5	Copy of Standard catalogue detailing the quoted model	
6	Warranty period of instrument should not be less than 12 months counted from the date of commissioning.	