

Sr. No	Description	Required	Offered
1.0	Application:		
	The Portable Surface Roughness tester is intended to be used in shop floor for checking of surface finish on curved surface of Governing and Bearing components i.e. Sealing rings, torus, spherical support etc. of turbines.		Vendor to comply in this column
2.0	Specific application:		
	Surface finish of job = Ra 0.02 micron or higher	Suitable tester to meet clause 2.0	
	Evaluation length up to pprox.. 12.5mm is desired or more can be considered.		
	Cut off length up to 0.25mm (or lesser) to 2.5mm (or higher).		
	Measuring capability on Primary, Roughness, Waviness, W-Motif Profiles & R-Motif profiles, with measurement on curved surfaces of radius 60mm or more, with skid-less measurement.		
	Instrument should have the capability to print the reports.		
3.0	General requirements:		
	Testing equipment and method should meet ISO 4287 or any international standard.		
	Evaluation shall be on parameter Ra, Rz, Ry, W at least.	Suitable tester to meet clause 3.0	
	Suitable attachment for cylindrical job, holes and suitable adopter for height gauge mounting.		
	Display should be on LCD or others for good visibility.		
	Portable, handy and light weight.		
	Rechargeable long life batteries.		
	Suited in working temperature of at least 05-50°C.		
	Extension rod shall be provided.		
	Data storage capacity and appropriate tools (software and hardware) to transfer data to any computer.		
	Specimen of Ra=0.4		
4.0	Accessories and Spares:		
		Suitable tester to meet clause 4.0	
4.1	Essential Accessories:		
	Manual Column Stand, Stylus for long length Deep groove measurement minimum 15mm depth, Adaptor for height gauge, Extension rod up to 80mm,		
4.2	Mandatory spares :		
	Printer paper and AC adapter		
5.0	General Conditions:		
	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.		
6.0	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 operation and trouble shooting manuals .		
	The party will quote necessary accessories items of Equipment even if not included at clause 4.1		
	The party shall provide calibration certificate of instruments and explain the calibration procedures of instrument during commissioning.		
	Warranty period of instrument should not be less than 12 months counted from the date of commissioning. .		
	If instrument comes under maintenance during warranty period, supplier shall provide backup instrument for smooth functioning during the diagnosis/repair period. Supplier has to provide and take back the standby and original instrument by personal transit.		

7.0	Qualifying Conditions :		
7.1	Only those OEMs or its authorized agencies that have supplied and commissioned at least one number of surface roughness testers of same quoted model in the past ten years (counting from the date of tender opening), should quote. Quoted model should be of OEM's standard catalogue item and such model had been successfully installed at customer's works for more than one year (counting from the date of tender opening).		
7.2	To prove the above criteria, Supplier must submit following documents/information. This is required for all vendors for qualification of their offer :-		
7.2.1	Self declaration certificate (incase of OEM or subsidiary) or authorisation certificate (incase of Agent)		
7.2.2	Photocopy or softcopy of minimum one purchase order of same model as being offered to BHEL		
7.2.3	Photocopy of minimum one number of Installation/service reports which was counter signed by clients at the time of commissioning. Report should bear the date of installation, status of installation .		
7.2.4	Copy of Standard catalogue detailing the quoted model .		
7.2.5	Name of quoted model .		
7.3	Following information in excel format shall be supplied with the offer for verification by BHEL (if required) of above claim:		
7.3.1	Name of the customer / company, where such machine(s) is(are) installed.		
7.3.2	Complete postal address of the customer.		
7.3.3	Application for which the machine is supplied.		
7.3.4	Name and designation of the contact person of the customer.		
7.3.5	Phone , email address of the contact person of the customer.		
7.3.6	Supplied model name.		
7.3.7	Year of installation.		

Sr. No	Description	Required	Offered
1.0	Application:		
	The Portable Surface Roughness tester is intended to be used in shop floor for checking of surface finish on flat surface of blades, Rotor etc. of turbines.		Vendor to comply in this column
2.0	Specific application:		
	Surface finish of job = Ra 0.02 micron or higher	Suitable tester to meet clause 2.0	
	Evaluation length up to approx. 12.5mm is desired or more can be considered.		
	Cut off length up to 0.25mm (or lesser) to 2.5mm (or higher).		
	Measuring capability on Primary, Roughness, Motif Profiles, with skid or skid-less measurement.		
3.0	General requirements:		
	Testing equipment and method should meet ISO 4287 or any international standard.		
	Evaluation shall be on parameter Ra, Rz, Ry at least.	Suitable tester to meet clause 3.0	
	Suitable attachment for cylindrical job, holes and suitable adaptor for height gauge mounting.		
	Display should be on LCD or others for good visibility.		
	Portable, handy and light weight.		
	Rechargeable long life batteries.		
	Suited in working temperature of at least 05-50°C.		
	Extension rod shall be provided.		
	Specimen in Ra from 0.3 to 0.5		
4.0	Toolings:	Suitable tester to meet clause 4.0	
4.1	Accessories :		
	Height gauge adaptor (9x9mm), Extension Rod 50mm, Small Hole Detector for dia 6mm or more, Stylus for long length Deep groove measurement minimum 15mm depth.,		
4.2	Spares		
	Standard detector, AC adapter		
	General Conditions:		
5.0	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.		
6.0	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 operation and trouble shooting manuals .		
	The party will quote necessary tooling items 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.		
	Warranty period of instrument should not be less than 12 months counted from the date of commissioning. .		

	If instrument comes under maintenance during warranty period, supplier shall provide backup instrument for smooth functioning during the diagnosis/repair period. Supplier has to provide and take back the standby and original instrument by personal transit.		
7.0	Qualifying Conditions :		
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