

No	Description;- LASER TRACKER	Required	Offered
	<b>Application:</b> The Laser Tracker is intended to be used in shop floor for checking the flow path of LP Rotor.		Vendor to comply in this column
2.0	<b>Specific application :</b>		
	LINEAR MEASUREMENT --- MIN 30 meter	Suitable laser tracker to meet clause 2.0,3.0&4	
	POWER LOCK --- MIN 25 meter		
	ACCURACY --- MAX 10-15 micron		
	MIN MEASUREMENT RANGE --- ≤ 1 meter		
	SPHERICALLY MOUNTED RETROREFLECTOR (SMR) SIZE & QTY) --- 1.5 In( 3nos ) & 0.5 In ( 2 nos )		
	ANGLE ROTATION ---- UPTO 360 deg		
	ELEVATION ---- MIN +75 deg./-50 deg		
	ANGULAR RESOLUTION ---- ± 0.018 arc sec.		
	FIELD OF VIEW ---- 30 deg. diagonal		
	SYSTEM RESOLUTION ---- 0.10 micron		
	LATERAL TARGET SPEED ---- 4 mt/sec		
	MAX ACCELARATION ---- >2g		
	INTERNAL LEVEL ACCURACY ---- Max ± 2 arc sec		
	LASER ---- Class-II (eye safe)		
	WT (KG) ---- 7 -18 Kg		
	LAPTOP SYSTEM ---- YES (COMPATABLE TO SYSTEM) OF REPUTED COMPANY WITH ANTI VIRUS LICENCED SOFTWARE		
	TRACKER PORTABLE STAND WITH CASE ----yes		
	AIR TEMPERATURE 0° - 45°C		
	HUMIDITY 0-95%		
3.0	<b>General requirements</b>		
	A- COMPATBLE TO WIRELESS PROBE		
	B- IT SHOULD HAVE IN BUILT LEVELING FEATURE & BE ABLE TO CREAT GRAVITATIONAL LEVEL PLANE FOR REFERENCE.		
	C- HIDDEN POINT AREA SHOULD BE REACHABLE WITH HAND HELD DEVICE WITH DIFFERENT PROBE EXTN. UPTO 50MM,950MM,100MM,250MM & 500MMO		
	D- IT SHOULD BE CAPABLE OF MEASURING ALL GEOMETRIC FEATURES i.e. POINT,LINE,PLANE,CIRCLE,SPERE,CONE , CYLIDER AND CO-CENTRICITY, PARALLELISM, PERPENDICULARITY, ANGLE & FLATNESS		
	E- IT SHOULD BE CAPABLE OF ALIGNING THE ALIGNMENT POINTS AT X,Y& Z PLANES		
	F- CAPABLE FOR ALL GEOMETRIC DEVIATION CALCULATION.		
	G- CAPABLE TO GENERATE CUSTOMIZE REPORT AND CAN BE		

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	EXPORTED TO PDF,MS EXCLE,MS WORDS FOR WINDOW BASE SOFTWARE		
	H- COMPATABLE TO FUTURE UPGRADATION		
	J- FIRM SHOULD HAVE FACILITY IN INDIA FOR SUPPORT , SPARES AND MAINTENANCE PURPOSE OF THE SYSTEM AT LEAST FOR 10 YRS AFTRE WARRANTY PERIOD.		
	K- VENDOR SHOULD DEMONSTRATE THE CAPABILITY OF THE SYSTEM FOR CHECKING BLADE TIP DIAMETER OF LP ROTOR .		
	L- VENDOR SHOULD PROVIDE ANNUAL MAINTENANCE CONTRACT FOR 5 YEARS OVER & ABOVE THE NORMAL GUARANTY / WARRANTY PERIOD. VENDER SHOULD QUOTE THE ABOVE AMC RATES SEPARATELY.		
	M- VENDOR SHOULD PROVIDE STANDBY EQUIPMENTY DURING BREAKDOWN THROUGH OUT GUARANTY/WARRANTY AND AMC PERIOD. IF EQUIPMENT NEEDS ANY REPAIRED AND TAKENOUT OF PLANT ,THE SAME SHALL BE DONE BY VENDOR AFTER PROVIDING A STANDBY EQUIPMENT OR EQUIVALENT BANK GUARANTEE.		
4.0	<b>Accessories:</b>		
	Necessary Cables, test supporting fixtures, guiding devices, calibration test specimen, Carrying case should be provided.		
5.0	<b>General Conditions:</b>		
	A. Vendor should offer in its quote for calibration charges for two years (Minimum 2 times after supply of equipment)		
	B. Confirmation of product support including accessories and spares for at least 10 years from the date of acceptance of the equipment.		
	C. Vendors should mention -the availability of calibration facilities for the equipment with contact details.		
	D. Spare availability/support for the entire products and accessories to be provided by the supplier.		
	E. Vendor will provide measurement templates for all variant of LP Rotors during commissioning of equipment.		
	F. Spare items shall be quoted on single piece basis price for entire AMC		
	G. Vendors to comply that they shall commission the instruments at our works. During commissioning. Vendor should also demonstrate interfacing of instrument and provide on job training at BHEL, HWR on application software of Laser Tracker and operating of device for the period of min 6 days for complete measurement of LP rotor.		
	H. The party will provide operation, service and troubleshooting manuals containing detailed circuit diagram.		
	J. The party shall provide calibration certificate of instruments and explain the calibration procedures of instrument during commissioning.		
	K. Guarantee /Warranty period of instrument should not be less than 24 months counted from date of commissioning.		
	L. The party will quote necessary spare parts / accessories items for minimum 05 years of satisfactory operation of Equipment if not already included at clause 4.0		
	M. Vender should provide all the maintenance documents, wiring diagram, installation soft wares, Parameter and program backup on DVD after final acceptance. If hard disk is used for storing program and parameters, a <b>spare hard disk</b> fully loaded with finally modified parameters and soft wares to be provided. Communication cables to be used to load program and parameters from USB port of laptop is to be provided.		

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