

Specification No.: QC-T/B/14/01

Indent no : 20140769

Sr.No	Description	Required	Offered
1.0	<b>Application:</b>		
	The Portable Compound Angle Sine Table is intended to be used in shop floor for checking of Radial Taper Angle/Ex/Ey of blades of turbines.		Vendor to comply in this column
2.0	<b>Specific application :</b>		
	Used for precise measurement, setting of double directional angle of steam turbine blade.	Suitable sine table to meet clause 2.0	
3.0	<b>General requirements</b>		
	Sine Table should be as per IS: 5943-1970.	Suitable sine table to meet clause 3.0	
	Centre Distance between rollers is within tolerance of 0.005mm.		
	Evaluation size: 500mm x 300mm.		
	Table made from high quality alloy steel hardened (Hardness 60±2 HRC) and tempered. Roller & slip gauge platform should also be hardened.		
	Angle can be set within ±5 seconds.		
	Portable, handy and light weight.		
	Firm hinged clamp to reduce possibility of distortion.		
	Accuracy for flatness & parallelism within 0.005mm.		
	Top of work table should be electromagnetic. Minimum Magnetic force should work to hold blade up to 10kg but should not <b>CREATE</b> residual magnetism in blade.		
	Control unit having facility of ON/OFF with input voltage 230V.		
	Sine table shall be sufficiently rigid so that the maximum deflection of work table under a vertical central load of 10kg shall not exceed 0.003mm.		
	Lead screw arrangement shall be provided for lifting of table in both direction for the purpose of putting slip value under roller.		
	Slot of size 500x10x10 should be provided at middle of top surface of table.		
4.0	<b>Accessories:</b>		
	Necessary Cables, test supporting fixtures, guiding devices, calibration test block etc. should be provided.	Suitable sine table to meet clause 4.0	
5.0	<b>General Condition</b>		
	Vendors to comply that quotation covers all the items 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.. 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 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( for reference only).		
	The party can demonstrate the instrument at our works if required.		
	Guarantee/Warranty period of instrument should not be less than 24 months counted from date of dispatch or 18 months counted from the date of commissioning whichever is later.		

*Prabhat*  
02/05/14  
(PRABHAT KR.)

*Kamal Sehgal*  
2/5/14  
(KAMAL SEHGAL)

*T.K. Saha*  
2/5/14  
T.K. Saha

6.0	<b>Qualifying Conditions :</b>	
	Only those vendors(OEMs or its authorized agencies), who have supplied and commissioned at least one number of sine table of same size and accuracies within the past 10 years (on the date of opening of tenders) and the referred instrument is presently working satisfactorily for more than one year (on the date of opening of tenders) after commissioning, should quote.	
	The following information should be submitted by the vendor about the companies where referred instruments have been supplied. This is required from all vendors for qualification of their offer.	
	Name of the customer / company, where referred instrument(s) is(are) installed.	
	Complete postal address of the customer	
	Month & Year of Commissioning.	
	Specific application if any for which the instrument is supplied.	
	Name and designation of the contact person of the customer.	
	Phone, FAX no. and email address of the contact person of the customer.	
	Performance certificate from the customer regarding satisfactory performance of instruments supplied to them (original certificate or through e-mail directly from the customer). Original certificate may be returned after verification by BHEL, if required.	
	BHEL reserves the right to verify information submitted by vendor. In case the information is found to be false /incorrect, the offer shall be rejected.	

*Signature*  
T.K. Saha 2/5/14

*Prashant K.*  
PRASHANT KR.

*Kamal Sehgal*  
02/5/14  
(KAMAL SEHGAL)