

	<b><u>BHARAT HEAVY ELECTRICAL LIMITED</u></b>								
	<b><u>UNIT'S ADDRESS:</u></b>							<b>Enquiry No. :</b>	
	<b><u>UNIT'S PHONE NO.:</u></b>							<b>Due Date :</b>	
	<b><u>CONTACT PERSON'S NAME/DESIGN./PHONE NO./E-MAIL</u></b> <b><u>(FROM PURCHASE DEPT.)</u></b>							<b>Supplier Qtn. No.:</b>	
								<b>Date :</b>	
<b><u>SPECIFICATION CUM COMPLIANCE CERTIFICATION FOR</u></b>									
<b><u>DEAD WEIGHT TESTER</u></b>									
	<b>NOTE:-</b>								
	1. Vendor must submit complete information against all clauses. The offer meeting clause no.3 would only be processed.								
	2. The "Offered" Column and where applicable, the "Deviations" & "Remarks" Column of this format shall be filled in by the Vendor and submitted along with the offer. Inadequate / incomplete, ambiguous, or unsustainable information against any of the clauses of the specifications/requirements shall be treated as non-compliance.								
	3. The offer and all documents enclosed with offer should be in English language only.								
	<b>ADDRESS OF THE SUPPLIER :</b>			<b>ADDRESS OF LOCAL (BHOPAL) AGENTS :</b>					
	<b>TELEPHONE NOS.:</b>			<b>TELEPHONE NOS.:</b>					
	<b>FAX NOS.:</b>			<b>FAX NOS.:</b>					
	<b>E-MAIL ADDRESS :</b>			<b>E-MAIL ADDRESS :</b>					
<b>SCOPE: SUPPLY, OF DEAD WEIGHT TESTER AS SPECIFIED BELOW</b>				<b>Quantity: 1 no.</b>					

SNO	DESCRIPTION FOR BHEL REQUIREMENT	SPECIFIED / TO BE CONFIRMED BY	OFFERED	DEVIATIONS	REMARKS
<b>1.0 PURPOSE :</b>					
1.1	Purpose : Hydro laboratory BHEL Bhopal tests hydro turbine model. Pressure measurement is one of the critical parameters to measure. Dead weight tester is required to calibrate the transducers used to measure these pressure.				
<b>2.0 SPECIFICATION :</b>					
<b>2.1 CONFIGURATION and SCOPE OF SUPPLY</b>					
2.1.1	The dead weight tester consists of pressure generator, a cylinder piston unit including a given section "S" and a set of weights with an accurate given value "m" which allow the establishment of the relation $P=(m \times g)/S$ and thus comply with the units of SI system. It should be sturdy, easy to operate and have excellent long term stability providing a high metrological property. The tester is equipped with an oil reservoir and a reservoir isolation valve. The volume adjuster activated compressor allows adjustment of pressure bringing to balance piston and weights. The pressure generated on the instrument is proportional to the value of the applied weights.	Vendor to confirm			
2.1.2	Calibration fluid should be mineral oil of functional relevance & good quality. Vendor to specify and give names of equivalent to it.	Vendor to confirm and specify			
2.1.3	Measuring range 0.5 bar to 30 bar Accuracy : better than 0.02 % of Pressure reading	Vendor to confirm			
2.1.4	Type of material Tubes and fittings- copper or brass or stainless steel Frame : non rusting alloy like aluminium alloy etc Carrying Case: Properly painted, of suitable material	Vendor to confirm and specify			

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2.1.5	Piston cylinder unit material : Suitably Treated (hardened) stainless steel or tungsten carbide	Vendor to confirm and specify			
2.1.6	A spirit level indicator and four adjustable integrated feet for proper level. Dead Weight tester should be stable while kept on top of the table.	Vendor to confirm			
2.1.7	System for pressurization	Vendor to specify			
2.1.8	Piston cylinder unit	Vendor to confirm			
2.1.9	Standard set of weights with carrying case properly marked to cover the entire range of pressure measurement. Type of material : Stainless steel or light alloy Shape: suitable Weight value: The standard weight set should cater for application of pressure at 0.25 bar increment or lesser in the range of 0.5 to 5 bar and at 0.5 bar increment or lesser in the range of 5 to 30 bar.	Vendor to confirm & specify			
2.1.10	Suitable motorized arrangement for rotation of cylinder for proper application of pressure.	Vendor to specify			
<b>3.0</b>	<b>QUALIFICATION</b>				
3.1	The supplier should be OEM or authorised dealer and should have supplied earlier atleast 5 No. dead weight tester under clause 2.0. A list of customers is to be given by supplier with offer.	Vendor to Confirm			
3.2	Copy of purchase order (P.O.) of dead weight tester from atleast one Customer listed in clause 3.1, with date of purchase order within last three years.If the vendor has supplied item as per clause 3.1 to BHEL, then copy of P.O. may be attached.	Vendor to Submit			

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<b>4.0</b>	<b>OVERALL DIMENSIONS</b>	Vendor to Specify			
<b>5.0</b>	<b>TESTING</b>				
5.1	Certificate of accuracy : A Testing and accuracy certificate complying to NABL/NKO or international standards to be provided. The Certificate should be traceable globally.	Vendor to Confirm and specify			
<b>6.0</b>	<b>DOCUMENTATION</b>				
6.1	Documents, detail drawing and operation/maintenance manual 4 Sets	Vendor to Confirm			
<b>7.0</b>	<b>ACCESSORIES</b>				
7.1	Oil for 1 <sup>st</sup> filling and 1 spare bottle of required quantity for one filling. Grade of the oil should be Indian or equivalent standard.	Vendor to Confirm			
7.2	1 horizontal outlet adapter with quick mount fittings.	Vendor to Specify			
<b>8.0</b>	<b>GUARANTEE :</b>				
8.1	Satisfactory performance in 12 months from the date of acceptance. Any defects or improper performance would be addressed by supplier free of cost.	Vendor to confirm			