

BHARAT HEAVY ELECTRICAL LIMITED, JHANSI

Specification No.	7187
Item No.	ME-1/6/2736/2
Location	BAY-8
Quantity	2 Nos

NOTE :

- 1 VENDOR must submit complete information against clause No. 9.0 (Qualifying condition). The offer meeting this clause
- 2 The offer and all documents enclosed with offer should be in English language only.
- 3 The " offered" Column and where applicable, the " Deviations" Column of this format shall be filled in by the Vender and

NAME & ADDRESS OF THE SUPPLIER	
TELEPHONE NOS.	
FAX NOS./E-MAIL ADDRESS	

SCOPE :

SUPPLY , ERECTION & COMMISSIONING OF ELECTRIC HEATING OVEN COMPLYING AS PER SPECIFICATION BELOW

SPECIFICATION CUM COMPLIANCE CERTIFICATE OF ELECTRICAL HEATING OVEN


S.NO.	DESCRIPTION FOR BHEL REQUIREMENT	SPECIFIED / TO BE CONFIRMED BY	OFFERED	DEVIATIONS
1.0	PURPOSE & WORK PIECE MATERIAL:			
1.1	Electrical Heating Oven shall be used for heating of active parts of Transformers in an autoclave.	Vendor To Confirm		
1.2	The heating up temperature of drying equipment shall be 110 (Appx) degree C.	Vendor To Confirm		
1.3	The Heating Oven is to be designed to take a payload of 5Tons capacity which is provided with wire rope and sheave pulleys for trolley movement in shop floor by shop floor crane.	Vendor To Confirm		
2.0	SPECIFICATION:	Vendor To Confirm		
2.1	Length -Min 4000 mm	Vendor To Confirm		
2.2	Width - Min 3000 mm	Vendor To Confirm		
2.3	Height - Min 2500 mm	Vendor To Confirm		
2.4	Maximum loading - 5 Tons	Vendor To Confirm		
2.5	Type of loading -Horizontal (Front loader)	Vendor To Confirm		
2.6	Heating capacity - 36 KW(Approx)	Vendor To Confirm		
2.7	Operating temperature - 110 (Appx) degree C.	Vendor To Confirm		
3.0	EQUIPMENT CONFIGURATION :- Electrical Heating Oven shall consist of an autoclave. The autoclave is loaded / unloaded by manual trolley.	Vendor To Confirm		
3.1	THE PLANT WILL BE DESIGNED FOR COMPLETE MANUAL CONTROL			
3.1.1	The electric control system will be provided with Digital Temperature indicator cum controller and Temperature scanner.	Vendor To Confirm		
3.1.2	Suitable number of Air circulating fans are to be provided for rapid and equi - distribution of heat for thorough heating of charge inside the vessel. The air circulating fans are to be designed for operation at 110 deg C.	Vendor To Specify		
3.1.3	Dry hot air entry and exit ports located suitably on the vessel for the supply of dry air for scavenging the humid air during heating phase. Alternate system to be provided for opening the door directly with out dry hot	Vendor To Confirm		
3.1.4	All seals, gaskets, light fitting, and wiring should be able to with stand variation of pressure and	Vendor To Confirm		


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3.1.5	<p>A. Oven door opening required in two part(equele size) which is supported on hinges mounted on side wall of oven</p> <p>B. Mechanical door locking system (operated by handle) to be provided</p> <p>C. Vender should ensuore the leak proof door closing system with incorporation of BAFFLE PLATE arrangment.</p>	Vendor To Confirm		
3.2	TROLLEY:			
3.2.1	<p>The supply of Electriacal Heating Oven with M.S Fabricated trolley(provided with wire rope and sheav pullyes for trolley movement in shop floor))</p> <p>TROLLEY Loading capacity - 05 ton.</p> <p>TROLLEY Size -Height-. 250mm,Width-. 2700mm,Length - 3200mm</p> <p>Square bar of min 40 mm is required for the movment of trolley in side oven and 05 meter out side oven will be in the scope of vender.</p>	Vendor To Confirm		
3.3	LAGGING AND CLADING OF THE VESSEL:			
3.3.1	The vessel is to be lagged by a suitable heat insulating material so as to keep the temperature in the neighborhood of vessel not to exceed 5 degree centigrade over the ambient and finally covered with Aluminium cladding.	Vendor To Confirm		
3.4	CONTROL PANEL AND GUAGES:	Vendor To Confirm		
3.4.1	To ensure processing of job as per the desired process parameter, a dust proof control panel having the following items shall be provided. On the panel:	Vendor To Confirm		
	(i) All necessary control / switch gears & fuse gears.	Vendor To Confirm		
	(ii) Indicating lamps, various types of switches etc.	Vendor To Confirm		
	(iii) Voltmeter, ammeter with selector switches.	Vendor To Confirm		
	(iv) Six point data logger to log various process parameters like temperature etc.	Vendor To Confirm		
	(v) Temperature controllers along with blind controllers/ for overriding control.	Vendor To Confirm		
3.4.2	All cables inside control panel and out side control cable shall be of copper conductor of suitable rating. The colour of control cable should be red and all cables for power shall be RED/Yellow/Blue for phases and green for neutral.	Vendor To Confirm		
3.4.3	All Electrics used in the plant shall be suitable for operation on 415Volts, 3 Phase , 4 wire , 50HZ A.C. Supply.	Vendor To Confirm		
4.0'	INSTALLATION:			
4.1	The vessel is to be installed on our prepared foundation, details of which will be furnished by manufacturer. Suitable ladders and platforms should be provided to reach top of the vessel and various equipments fitted at height.	Vendor To Confirm		
5.0'	ERECTION AND COMMISSIONING:			

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5.1	The offer should include the charges for complete transportation, erection and commissioning of the vessel and ancillary equipments with duration. Your commissioning engineer's services should also be available at site for setting all controls while demonstrating the working of the plant.	Vendor To Confirm		
6.0 LOAD TEST:				
6.1	Load test at full load shall be carried out for complete one cycle of processing of transformer and various parameter shall be checked like Time taken to complete the cycle of processing, Measuring of various parameter in transformer which have been processed .	Vendor To Confirm		
6.2	At no load with all the heaters (Powe consumed by the oven)on the heating capacity of the oven as well as the time taking by the empty oven to reach a temprature of 110 deg. c from ambient will be recorded.	Vendor To Confirm		
6.3	After this the oven witll be put under load test and the above two parameters as indicated above will again be noted and recorded.	Vendor To Confirm		
7.0 MISCELLANEOUS:				
7.1	The offer should be descriptive and complete. Details of all equipments and accessories like , Vessel and door heating system, and sealing arrangement, Job loading and movement system with general arrangement drawings and catalogues to be enclosed with the offer. Offer with out complete details are liable to be rejected.	Vendor To Confirm		
7.2	Firm should give breakup prices of all major items and activities.	Vendor To Confirm		
7.3	The following drawings and information are to be furnished along with the offer:			
7.3.1	Details and drawing of trolley, door supporting, and sealing arrangement including Locking of door.	Vendor To Confirm		
7.3.2	Details of various controls (Electric/ Mechanical), instrumentation, safety devices etc.	Vendor To Confirm		
7.3.3	Electrical control and power schematic diagram.	Vendor To Confirm		
7.3.4	Notwithstanding anything, the details in this specification, if any thing else is required for its functioning, the same shall be Specifically brought out & indicated.	Vendor To Confirm/ Specify		
8.0 DOCUMENTATION :				
8.1	Three sets of following documents (Hard copies) in English language should be supplied along with the plant	Vendor To Confirm		
8.2	Operating manuals of plant	Vendor To Confirm		
8.3	Detailed Maintenance manual of plant with all drawings	Vendor To Confirm		
8.4	Detailed specification of all rubber items and hydraulic/lube fittings	Vendor To Confirm		
9.0 QUALIFYING CONDITIONS:				

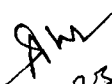
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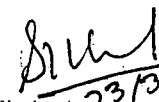
NO.	DESCRIPTION FOR BIHEL REQUIREMENT	SPECIFIED / TO BE CONFIRMED BY	OFFERED	DEVIATIONS
9.1	Only those vender, who have supplied and commissioned at least two Electrical Heating Oven for similar application in the past ten years and such oven is presently working satisfactorily for more than one year (more than six month if supplied to BIHEL) after commissioning should quote. The following information is to be submitted by the vender about the companies where similar heating oven have been supplied. This is required from venders for	VENDER TO CONFIRM		
9.2	Name of the customer / company where similar Vacuum Vessel is installed. (copy of purchase order to be furnished)	VENDER TO SPECIFY		
9.3	Complete postal address of the customer.	VENDER TO SPECIFY		
9.4	Year of suppling / commissioning.	VENDER TO SPECIFY		
9.5	Application for which heating oven vacuum is supplied with details of accuracies achived on the job.	VENDER TO SPECIFY		
9.6	Name and designation of the contact person of the customer.	VENDER TO SPECIFY		
9.7	Phone, FAX, no andE-mail address of the contact person of the customer.	VENDER TO SPECIFY		
9.8	Performance certificate from the customer regarding satisfactory performance of vacuum vessel supplied to them	VENDER TO SPECIFY		
10	BIHEL reserves the right to verify information submitted by vender. In case the information is found to be false/ incorrect, the offer shall be rejected.	VENDER TO CONFIRM		


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