



BHARAT HEAVY ELECTRICALS LIMITED
Heavy Power Equipment Plant, Ramachandrapuram,
Hyderabad - 502 032. INDIA.
Phones :
Purchase Dept:
E-mail : technicalbid_hyd@bhel.in

Indent No. :
Date :
Enquiry No. :
DueDate :
Vendor Qtn. No.:
Date:

**Tender documents to be filled by the Vendor for supply of
SUB ZERO bath-01 No**

ADDRESS OF THE Vendor :		ADDRESS OF THE INDIAN AGENTS	
TELEPHONE NOS.:		TELEPHONE NOS.:	
FAX NOS.:		FAX NOS.:	
E-MAIL ADDRESS :		E-MAIL ADDRESS:	
NOTE:			
1. Vendor shall submit complete information against each clause of the specification given below point by point.			
2. The Vendor should fill the "Offered" Column in compliance to specified requirements and also "Deviations" column, where there is deviation from the requirement. Duly filled specification cum compliance certificate should be submitted along with the bid. Inadequate, incomplete, ambiguous or unsustainable information against any of the clauses of the specifications/requirements shall be treated as non-			
3. The offer and all the documents enclosed with bid should be in English language only.			
4. Vendor shall submit answers and details (if req) to each & every clause as per this spec document format in other caser offer			
Sl.No.	Description for BHEL Requirement	Offered	Deviations
1	PURPOSE: Subzero bath is required in our E&I labs for calibration of RTD's/thermometers.		
2	PREQUALIFICATION REQUIREMENT : a) The suppliers shall give a list of atleast two PO copies or customers list with contact numbers/email id's to whom similar Subzero bath's are supplied b)The vendor shall be OEM or authorised distributor and the supporting documents need to be submitted		
3	Technical requirements of Subzero bath:		
4	Temperature Range: -20 to +50 °C (vendor to note & confirm)		
5	Display resolution: - ± 0.1 °C or better (vendor to note & confirm)		
6	Stability: - ± 0.1 °C or better (vendor to note & confirm)		
7	Uniformity: - ± 0.2 °C or better (vendor to note & confirm)		
8	Cooling time: 1.5 hours (vendor to note & confirm)		
9	Heating time: 1 hour (vendor to note & confirm)		
10	The bath shall have PID Controller for setting of temperature. The controller shall have resolution of 0.1°C or better. The sensor of the controller shall be Class-A PT100 RTD. The Display shall have an LED display (vendor to note & confirm)		
11	The temperature Controller shall be Eurotherm or yokogawa make.: Vendor to note and conform		

Sl.No.	Description for BHEL Requirement	Offered	Deviations	Remarks
12	Automatic high temperature safety cut-off to prevent samples from high temperature heating (vendor to note & confirm)			
13	Calibration Area: - Minimum requirement 90mmX 90mm and Depth 150 mm. (vendor to note & confirm)			
14	Stirrer motor for uniformity of temperature with in the tank or any other better process to maintain the uniformity of the bath (vendor to note & confirm)			
15	Built in long life, fully balanced, less noise refrigeration system with hermetically sealed compressor and air-cooled condenser. Filled with CFC Free Refrigerant or any other better cooling facility but the noise level does not exceed 60 db(vendor to note & confirm)			
16	model no: (vendor to mention)			
17	Heating Facility shall be available for heating to higher temperatures having long life and electrically insulated heater assembly (vendor to note & confirm)			
18	Removable tray with holes for holding different diameter sensors or thermometers is provided (vendor to note & confirm)			
19	Power Supply: 230 V AC single phase supply with 50 HZ Frequency (vendor to note)			
20	5 Liter or more depend on tank capacity (considering clause 13) , liquid medium Methanol shall be supplied along with the bath (vendor to note & confirm)			
21	There shall be better provision available for removal of liquid from the bath tank (vendor to note & confirm)			
22	The supplier shall provide Calibration Certificate of bath and sensor from any recognized calibration lab (vendor to agree)			
23	Vendor should submit the detailed catalog along with the offer (vendor to submit)			
24	Supplier shall demonstrate the working of the Bath to Lab personnel at BHEL works (vendor to note & confirm)			
25	GUARANTEE: The sub zero bath shall work within all the specified parameters with out any issues for at least 12 months from the date of commissioning and final acceptance. :Vendor to note and conform			
26	DOCUMENTATION: Three sets of operating instruction manuals has to be supplied: Vendor to confirm			
27	PACKING : Rigid packing to be made for all items of complete machine, all accessories and other supplied items to avoid any damage/loss in transit. When machine is dispatched in containers, all small loose items shall be suitably packed in boxes. Packing list to be provided in the box			
28	Delivery period to be indicated by the supplier			