



## Bharat Heavy Electricals Limited

(High Pressure Boiler Plant)

Tiruchirappalli – 620014, TAMIL NADU, INDIA

CAPITAL EQUIPMENT / MATERIALS MANAGEMENT

<b>ENQUIRY</b> <b>NOTICE INVITING TENDER</b>	Phone: +91 431 257 76 53 Fax : +91 431 252 00 31 Email : <a href="mailto:skaruna@bheltry.co.in">skaruna@bheltry.co.in</a> Web : <a href="http://www.bhel.com">www.bhel.com</a>
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<b>TWO PART BID</b> Tender to be submitted in two Parts	<b>Enquiry Number:</b> <b>2631400029</b>	<b>Enquiry Date:</b> <b>19.09.2014</b>	<b>Due date for submission of quotation:</b> <b>18.10.2014</b>
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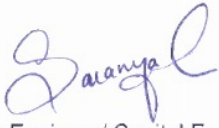
You are requested to quote the Enquiry number date and due date in all your correspondence. This is only a request for quotation and not an order.  
Please note that under any circumstances both delayed offer and late offers will not be considered. Hence vendors are requested to ensure that the offer is reaching physically our office before 14.00 hrs on the Date of tender opening.

Item	Description
10	Electronic Work Bench (02 Nos.) per the technical specification & commercial conditions applicable (to be downloaded from web site <a href="http://www.bhel.com">www.bhel.com</a> or <a href="http://tenders.gov.in">http://tenders.gov.in</a> )

**Important points to be taken care during submission of offer:-**

1. The Compliance Form for Commercial Terms & Conditions to be filled and enclosed along with the offer failing which, the offer will not be considered for evaluation.
2. All updates, amendments, corrigenda, etc., (if any), for each tender will be posted only on the above websites from time to time, as and when required, until each tender is opened. There will be no publication of such updates, amendments, corrigenda, etc., through newspapers or any other media

**BHEL's General guidelines / instructions (refer MM/CE/GENL/001) including bank guarantee formats and list of consortium banks, commercial terms check-list can be downloaded from BHEL web site <http://www.bhel.com> or from the Government tender website <http://tenders.gov.in> (public sector units > Bharat Heavy Electricals Limited page) under above Enquiry reference.**

Tenders should reach us before 14:00 hours on the due date Tenders will be opened at 14:30 hours on the due date Tenders would be opened in presence of the tenderers who have submitted their offers and who may like to be present	Yours faithfully, For <b>BHARAT HEAVY ELECTRICALS LIMITED</b>  Senior Engineer/ Capital Equipment / MM
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**Specification for ELECTRONIC WORK BENCH**

Sl. No.	Product Description	BHEL's Specification/ Requirement	Vendor's Confirmation*	Deviation, if any
<b>1.0</b>	<b>General Specification</b>			
1.1	General assembly with accessories	<p>The electronic work bench shall consists of,</p> <ul style="list-style-type: none"> <li>Free standing metallic structure with lockable castor wheel in all the legs, hard treated plywood table top with antistatic laminate and side drawers.</li> <li>Metallic power panel box to accommodate AC incoming power with indicators, protective devices etc.</li> <li>Instrument panel box on the top of power panel box to accommodate DC power supplies, Instruments viz: Signal Generator, Oscilloscope etc.</li> <li>Revolving work stool without backrest</li> </ul>		
<b>2.0</b>	<b>Material</b>			
2.1	Structural Frame work & Finish	MS square / rectangular tubular sections of 16 gauge or better. Colour & Finish : Light Gray / Off white powder coating with matte finish.		
2.2	Table Top & Finish	Hard treated ply wood with a minimum thickness of 17mm and Antistatic laminate on the top. Colour & Finish : Light Gray / Off white laminate with matte finish.		
2.3	Storage drawers & Finish	3nos. of drawers [Size: 600mm(L) x 400mm (W) x 200mm(H)] with lock & draw handle made of metallic sheet steel. Colour & Finish : Light Gray / Off white powder coating with matte finish.		
<b>3.0</b>	<b>Overall dimension</b>			
3.1	Dimension	Overall minimum dimension of the table shall be 1200mm (L) x 750mm (W) x 1325mm (H) excluding caster wheel.		
<b>4.0</b>	<b>Power In &amp; outlet requirement</b>			
4.1	Power input (P, N and Earth)	230V AC $\pm$ 10%, 1ph, 50 Hz to be terminated at an unbreakable terminal block		
4.2	Protective device	Input supply shall be routed through a MCB or protective switch gear		

Sl. No.	Product Description	BHEL's Specification/ Requirement	Vendor's Confirmation *	Deviation, if any
4.3	Type & Number of power outlets	6nos. of 15/5A combination socket with switch, fuse and indicator.		
<b>5.0</b>	<b>Instruments and Power supplies which shall be part of and mounted in the workbench</b>			
5.1	DC Power supply	Approved Make: APLAB, MASTECH, KUSAM-MECCO, ELNOVA Output voltage : 0 to 30VDC Ripple : Less than 2mv rms Regulation : Line & Load 0.01% or better Output current : 10A minimum		
5.2	Multifunction Digital Meter	Approved Make : EXTECH, Motwane , Rishabh, TENMA, DIGIMESS No of digits : 3 ½ or better Display : LCD panel Measure functions : AC / DC Volt, AC / DC current, Resistance, Capacitance, Frequency etc. Measuring ranges: DC Volt: Ranges of 200mV to 1000V with resolution of 100uV to 1V. Accuracy : 2% or better AC Volt: Ranges of 2V to 750V with resolution of 1mV to 1V. Accuracy : 2% or better DC Current: Ranges of 20mA to 20A with resolution of 10uA to 10mA. Accuracy : 5% or better AC Current: Ranges of 20mA to 20A with resolution of 10uA to 10mA. Accuracy : 5% or better Resistance: 2000ohm to 20Mohn. Accuracy :5% or better Capacitance: 20nF to 200uF, with resolution of 10pF to 100nF. Accuracy : 3% or better Frequency:2KHz, 200Khz with resolution of 1Hz, 100Hz. Accuracy of 3% or better		
5.3	LCD Digital Storage Oscilloscope	Approved Make : TEKTRONIX, TENMA, DIGIMESS, AGILENT, SCIENTIFIC, GWINSTEK Display :7.8" Colour LCD or better Measuring range :25MHz Input coupling / impedance : DC & AC / 1M or better		

Sl. No.	Product Description	BHEL's Specification/ Requirement	Vendor's Confirmation *	Deviation, if any
	Function Generator / Counter	Sampling rate :10S/s to 100MS/s or better Recording length : 6000 samples or better Approved Make : TEKTRONIX, TENMA, DIGIMESS, AGILENT, SCIENTIFIC, GWINSTEK Generator Waveforms : Sine, Triangle, Square, Pulse, Ramp Generator Frequency : 30Hz to 3MHz or better Generator Accuracy : ±1% or better Output voltage level : -20Vpp to 10Vpp or better Counter Frequency : 50MHz or better		
5.4				
<b>6.0</b>	<b>Service Stools to be supplied with workbench</b>			
6.1	<b>Steel revolving stool</b>	Two per workbench shall be supplied The stools shall have round rotary cushioned seat without backrest		
<b>7.0</b>	<b>Spares</b>			
	Mandatory spares	Spares as required viz. Power / control fuses pertaining to Instruments and power outlets		
<b>8.0</b>	<b>Guarantee / Warranty</b>			
8.1	Period	12 months from the date of commissioning or 18 months from the date of supply whichever is earlier.		

**Qualifying Criteria:**

The vendor should have supplied similar Electronic Work Bench to any Government / PSU organization / Engineering Institutes.

Copy of P. O executed shall be attached along with the offer.

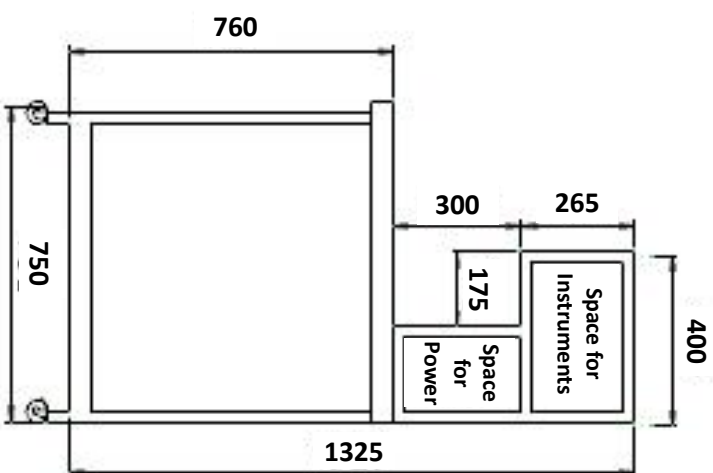
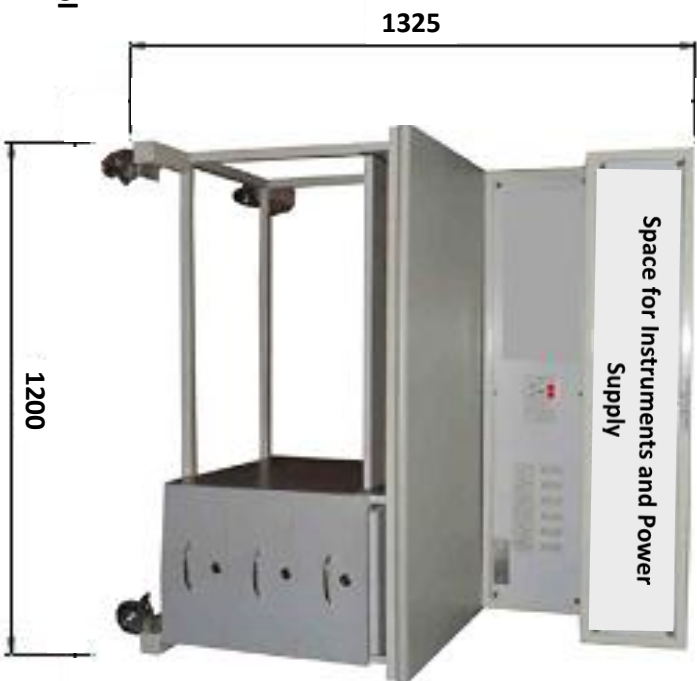
**Note:**

**Vendor confirmation\*** must be clearly spelt out with detail. **Yes / No answers will be treated as disqualified.**

All instruments shall be operable on 85-264 VAC 1ph., 50 Hz.



**Adjustable Revolving Stool**  
Height : 450-550  
Seat Diameter : 400  
Seat Thickness : 90



**All Dimensions are in mm**

**Sketch for Electronic  
Work Bench**

Ref:TDC:TCI:RPD:01:EWB Rev00