



An ISO 9001
Company

Bharat Heavy Electricals Limited

(High Pressure Boiler Plant)

Tiruchirappalli – 620014, TAMIL NADU, INDIA

MATERIALS MANAGEMENT / CAPITAL EQUIPMENT

ENQUIRY

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Enquiry Number:	Enquiry Date:	Due date for submission of quotation:
2620900030	28.01.2009	03.03.2009

You are requested to quote the Enquiry number date and due date in all your correspondences. This is only a request for quotation and not an order

Item	Description	Quantity	Delivery (Item required at BHEL on)
10	Oxygen and Nitrogen analyser as per the technical specification & commercial conditions applicable (to be downloaded from web site www.bhel.com or http://tenders.gov.in)	1 No.	25.06.2009

BHEL commercial terms & conditions with Price Bid and Bank Guarantee formats 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 Enquiry reference “2620900030”.

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 BHARAT HEAVY ELECTRICALS LIMITED

Sr.Manager / MM / Capital Equipment

MMF-ATP-I-09 - OXYGEN & NITROGEN ANALYSER
PART A

QUALIFYING CRITERIA FOR THE SUPPLY OF O2-N2 ANALYSER

SECTION – I

The BIDDER / VENDOR has to necessarily provide the following details, for making an assessment of the firm's capability and competency:

The BIDDER is expected to give complete details against each clause in the table given below and wherever necessary an additional sheet may be attached giving clear reference number to cover the required details.

Sl.No	PARTICULARS	VENDOR'S RESPONSE
1.0	Number of Years of Experience of the BIDDER/VENDOR in 'Gaseous Elements (O2 & N2) Analyser'	
2.0	Number of O2 & N2 Analyser Supplied, erected commissioned till date.	
3.0	Number of O2 & N2 Analyser Supplied, erected commissioned till date in the following category of CUSTOMERS: a) Central Government Organizations b) Public Sector Enterprises c) Private Sector Enterprises [Large Scale Industries]	
4.0	Number of O2 & N2 Analyser Supplied, erected & commissioned till date in the following category a) Universities b) R&D Labs c) Heavy Engineering Works.	
5.0	Details of Design Set-Up	
6.0	Details on International Standards followed in Design	
7.0	Details of Manufacturing Facilities	

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Sl.No	PARTICULARS	VENDOR'S RESPONSE
8.0	Comprehensive Details on Performance Testing-	
9.0	Details of Quality System followed	
10.0	Details on AFTER –SALES-SERVICE Set-Up	
11.0	Any Additional Data to Supplement the manufacturing capability of the BIDDER	

SECTION – II

The BIDDER / VENDOR has to compulsorily meet the following requirements to get qualified for submitting an offer for the Optical emission Spectrometer

Sl.No	REQUIREMENTS	VENDOR'S COMMENTS
12.0	The BIDDER / VENDOR Shall have a minimum of FIVE Years of Continuous Experience in O2 & N2 Analyser [Design, Manufacture & Supply]	
13.0	The BIDDER / VENDOR might have supplied at least one number O2 & N2 Analyser in the last FIVE Years	
14.0	Reference list of Customers and Performance Certificate from CUSTOMERS (minimum 2 to 3 Customers) with details of CONTACT PERSON.	
15.0	The BIDDER / VENDOR should have sound financial position and should furnish the Finance Statement (Summary of P & L Statement and Balance Sheet) for the immediate past three Years.	
16.0	In Case of short listing by the Purchaser, the BIDDER / VENDOR has to co-ordinate for the visit of Assessing Team, to the WORKS of the BIDDER/VENDOR with a notice period of 10 days.	

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SECTION – III

The BIDDER / VENDOR has to comply with the following, for accepting the Technical Offer for scrutiny by the Purchaser:

Sl.No	REQUIREMENTS	VENDOR'S COMMENTS
17.0	The BIDDER / VENDOR shall submit the offer in TWO PARTS – Technical & Commercial and Price Bid. The Technical Offer shall be in line with the BHEL Technical Specifications and the Guidelines or Annexure mentioned, wherever applicable.	
18.0	The Technical Offer shall Contain a comparative statement of Technical Specifications given by BHEL and the Offer Details submitted by the BIDDER, against each clause of the Specifications.	
19.0	A just 'CONFIRMED' or 'COMPLIES' or 'yes' or 'NO-DEVIATION' or similar words in the technical comparative statement may lead to disqualification of the Technical Offer	
20.0	The Technical Offer Shall be Supported by product Catalogue and Data Sheets in ORIGINAL and complete technical details of 'Bought-Out-Items' with copies of product catalogue and Selection Criteria	
21.0	The Commercial Offer (given with the Technical Offer) shall CONTAIN THE Scope of Supply and the unpriced Part of the Price-Bid, for confirmation	
22.0	The reference List of Customers Shall be accompanied with the details (Phone Number /e-Mail ID) of the CONTACT PERSON for cross reference.	

MMF-ATP-I-09 - TECHNICAL SPECIFICATION FOR OXYGEN AND NITROGEN ANALYSER

PART-B

Sl.No	PARTICULARS	BHEL SPECIFICATION	BIDDER'S OFFER [With complete Technical Details]
1.0	Area of Application	Oxygen & Nitrogen analyser is meant for analyzing N ₂ &O ₂ in Specimens prepared from Test Plates taken out for Critical Pressure Parts coming in High Pressure Boilers, Industrial Valve Components, Castings, Welding Qualification Test Plates, Procedure Qualification test coupons covering a wide range of materials from plain Carbon Steel, Low Alloy & High Alloy Steels, Quenched & Tempered Steels, Austenitic & Martensitic Stainless Steels; Nickel & Titanium Alloys.	
2.0	Principle of Operation	Inert gas Fusion in impulse furnace in graphite crucible under Helium atmosphere & the N ₂ measured in TCD detector. O ₂ is measured in NDIR(Non-dispersive Infrared Absorption)	
3.0	Design Base	This should be a simultaneous O₂&N₂ analyzer The Determinator and exterminator with built in electrode Furnace Windows based OS.	
4.0	Equipment Configuration	The minimum desired features are enlisted below	
4.1	Testing capacity	Oxygen-0 to 1000 ppm Nitrogen-0 to 5,000 ppm	

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Sl.No	PARTICULARS	BHEL SPECIFICATION	BIDDER'S OFFER [With complete Technical Details]
4.2	Balance	Built-in or external Range =0- 100 gm Sensitivity=0.001gm with interface cable to the equipment	
4.3	Furnace	Electrode Furnace with programmable temperature to minimum of 2800°C.	
4.4	Test results display mechanism	External PC latest specification with HP laser printer To provide a suitable PC System (Computer and Accessories) with SOFTWARE compatible to Windows XP for acquiring and compiling of test data ,and printing Computer (PC) Configuration (minimum):- Intel Pentium core 2 duo Processor;(2MB L2 Cache,3.00 Ghz,800 MHz FSB); Intel Mother Board;2GB DDR RAM, 160 GB SATA Hard disk ; DVD writer,17”TFT Monitor,56.6 KBPS Internal modem; Multi-media Keyboard ,Optical Mouse etc. UPS for 30 minutes back-up.	
4.5	Input Electric Power Supply	230 ± 10 % V , 50Hz, Single Phase AC through a 3 wire system [Phase ,Neutral & Protective Earthing]	
5.0	Accuracy, Precision and Sensitivity	Following features are to be compulsorily built – in a) Accuracy:±0.005 ppm or 2% reading whichever is greater b) Precision:±0.01 ppm or 0.1% reading whichever is greater c) Sensitivity:0.01 ppm	

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Sl.No	PARTICULARS	BHEL SPECIFICATION	BIDDER'S OFFER [With complete Technical Details]
6.0	Spares for Main Equipment & essential spares.	BIDDER has to list down the SPARES. BIDDER to QUOTE with UNIT RATE for all the listed SPARES, to be procured with the equipment.	
7.0	Calibration Calibration standards: For Ti base & alloy steels	Multipoint calibration To provide suitable calibration standards ranging from 5 ppm to 100 ppm of N2 & O2 both steel and Titanium	
8.0	Accessories	BIDDER to list down (with UNIT RATE) the various ACCESSORIES to be procured with the EQUIPMENT to enhance the Operating Efficiency and Features of the OFFERED EQUIPMENT, over and above those mentioned in the SPECIFICATIONS. Suitable Voltage stabilizer- indigenous supply	
9.0	Consumables	Consumables for 1000 operations UNIT RATE for all the listed consumables, to be procured with the equipment.	
10.0	Inspection	The equipment & Accessories Shall be offered for Inspection by BHEL Engineers and performance prove –out ,at the works of the Supplier, Prior to Dispatch.	

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Sl.No	PARTICULARS	BHEL SPECIFICATION	BIDDER'S OFFER [With complete Technical Details]
11.0	Installation and Commissioning	The Equipment with all Accessories is to be installed & commissioned at BHEL works , FREE OF COST , by the Service Engineer of the SUPPLIER.	
12.0	Performance prove out at BHEL	The Supplier's Service Engineer has to calibrate the Equipment & Accessories by Direct and Indirect Methods and to carry-out Performance Prove-Out as per BHEL Specifications.	
13.0	Documentation in ENGLISH language	3 Copies of the Operation & Maintenance Manuals containing Electric Schematics, Circuit diagrams, PCB Drawings, Trouble Shooting Charts, Mechanical Sub-Assemblies, Rating of Bought-Out Items, etc. shall be supplied, at the time of inspection, by BHEL Engineers In addition, one SOFT COPY in CD to be supplied.	
14.0	Performance Guarantee	The Equipment & Accessories (including Bought-Out Items) are to be guaranteed for its performance for a minimum period of one year from the date of performance acceptance at BHEL Works.	

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Sl.No	PARTICULARS	BHEL SPECIFICATION	BIDDER'S OFFER [With complete Technical Details]
15.0	Training on operations & Maintenance	Complete Training for 2 BHEL Engineers is to be given on operation & Maintenance of the OFFERED EQUIPMENT at SUPPLIER'S Works, FREE OF COST. Similar Training has also to be provided at BHEL works, after the successful commissioning of the Equipment & Accessories.	
16.0	Service support Requirements.	Vendor shall ensure AMC service facilities in India after the guarantee period , through trained service personnel in India.	
17.0	Annual Maintenance Contract	The BIDDER has to QUOTE for AMC under two patterns given below ,for a period of THREE YEARS after the expiry of Original WARRANTY period:	
18.1	AMC – CASE I	Technical service for preventive Maintenance, Trouble Shooting and Re- Commissioning of the Equipment EXCLUDING the Cost of SPARES and Consumables [BHEL will not be responsible for the timely availability of spares & Consumables]	

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Sl.No	PARTICULARS	BHEL SPECIFICATION	BIDDER'S OFFER [With complete Technical Details]
18.2	AMC – CASE II	Technical service for preventive Maintenance, Trouble Shooting and Re- Commissioning of the Equipment INCLUDING the Cost of SPARES and Consumables [BHEL will not be responsible for the timely availability of spares & Consumables]	
18.3	AMC - RESPONSE	The bidder has to furnish / indicate the response time for the service engineer to be at BHEL works , from the time of reporting breakdown through e-mail or telefax.	
18.4	AMC – Service Calls	The BIDDER has to furnish details on service calls for preventive maintenance (number of calls and intervals) and break-down maintenance.	