



An ISO 9001
Company

Bharat Heavy Electricals Limited

(High Pressure Boiler Plant)

Tiruchirappalli – 620014, TAMIL NADU, INDIA

MATERIALS MANAGEMENT

TITLE : Supplying of Cabin roller for HTF and CDF furnaces.	Phone: +91 431 2577645/2577331 Fax : +91 431 252 07 19 Email : balasund@bheltry.co.in srchandran@bheltry.co.in Web : www.bhel.com , http://tenders.gov.in
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	Reference Number: Enquiry 2680900019	Enquiry Date: 27.03.09	Due date for submission of quotation: 23.04.09
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			

BHEL/Trichy is looking for supply of Cabin roller for HTF and CDF furnaces, as per the technical specification . The vendors fulfilling the pre-Qualification Criteria alone need to apply and shall be considered.

Pre-Qualifying criteria for the Vendors

1.Vendors should have supplied for minimum 3 Ton capacity of High Temperature Furnace with roller hearth and roller for 1000 °C furnace operating temperature. Inadequacy of above experience will call for summarily rejecting the offers.

2.At least one high temp roller hearth furnace / high temp rollers for high temp roller hearth furnaces should have been supplied and commissioned for the operation of 1000 °C, till date and the details of the customers are to be provided

(OR)

If the vendors is not the furnace manufacturer for such application, the vendor shall have adequate experience in supplying such high temperature rollers for the capacity of 3 Ton and above furnace needs only to offer.

BHEL commercial terms & conditions with Price Bid format and Bank Gurantee formats can be downloaded from BHEL web site http://www.bhelcom or from the Government tender website http://tenders.gov.in (public sector units) Bharath Heavy Electricals Limited) under enquiry reference “26800900019”	
Tenders should reach us before 14:00 hours on the due date Technical bid 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 Bharath Heavy Electricals Limited Manager / Capital Purchase/ Manufacturing



ENQUIRY
(INDIGENOUS)

BHARAT HEAVY ELECTRICALS LIMITED

(A Government of India Undertaking)
HIGH PRESSURE BOILER PLANT
PURCHASE DEPARTMENT - FOSSIL BOILERS
THIRUCHIRAPALLI - 620014
TAMILNADU (INDIA)

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PHONE : 2577645
GRAMS : BHARATELEC
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E-mail: balasund@bheltry.co.in
Web:www.bhel.com (or)tenders.gov.in

429-002/A

Enquiry No	Enquiry Date	Due Date for Quotation
2680900019 - 49	27.03.2009	23.04.2009
Please quote Enquiry No, Date and due date in all correspondences. This is only a request for quotation and not an order		

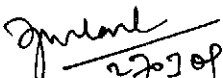
Item	Description	Unit	Quantity	Delivery Quantity	Schedule Date
10	DRIVE ROLLER DRAWING NO. 3M-18B-06-12653 Quantity = 6 nos Specification for cabin Roller of Roller Hearth CDF FURNACE Application: To support the boiler tubular coil and to convey the coil from infeed to discharge at Temperature of the furnace 1100 degree Celsius. Scope of supply:As per Annexure-A (Item No.10) CDF CABIN ROLLER 3M-18B-06-12653	NO	6.000	6.00	30.05.09
20	CABIN ROLLER DRAWING NO. 2M-18B-100-4708 QUANTITY = 10 NOS Specification for cabin Roller of Roller Hearth HTF FURNACE Application: To support the boiler tubular coil and to convey the coil from infeed to discharge at Temperature of the furnace 1100 degree Celsius. Scope of supply:As per annexure-A-Item No.20 HTF CABIN ROLLER 2M-18B-100-4708	NO	10.000	10.00	30.05.09

General Note:

- 1.,,PLEASE SUBMIT YOUR DETAILED OFFER IN TWO PART BID SYSTEM ie. TECHNICAL AND COMMERCIAL UNPRICED) IN ONE SEALED COVER, PRICED OFFER IN ANOTHER SEPARATE SEALED COVER.
2. POINT-TO-POINT CONFIRMATION TO BHEL'S SPECIFICATION AND COMMERCIAL TERMS & CONDITIONS SHOULD BE PROVIDED IN ANNEXURE-II AND WITHOUT FILLING ANNEXURE-III & V, THE OFFER WILL NOT BE CONSIDRED. THE ABOVE TWO ANNEXURES AND ANNEXURE-IV (WITHOUT PRICE) SHOULD BE FILLED AND SUBMITTED ALONG WITH PART-I, i.e TECHNO-COMMERCIAL BID
- 3.,,PAYMENT TERMS STRICLY AS PER OUR PAYMENT TERMS INDICATED IN THE

The offers should reach us before the time of opening of tenders.
The offers will be opened at 14:30 hours on the due date in the presence of the tenderers who may like to be present.
Late tenders are liable to be rejected.

Yours faithfully,
For **BHARAT HEAVY ELECTRICALS LIMITED**


MANAGER / PURCHASE
(FOSSIL BOILERS)



BHARAT HEAVY ELECTRICALS LIMITED

(A Government of India Undertaking)
HIGH PRESSURE BOILER PLANT
PURCHASE DEPARTMENT - FOSSIL BOILERS
THIRUCHIRAPALLI - 620014
TAMILNADU (INDIA)

PHONE : 2577645
GRAMS : BHARATELEC
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E-mail: balasund@bheltry.co.in
Web:

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11458

COMMERCIAL TERMS AND CONDITIONS. OTHER PAYMENT TERMS ARE NOT ACCEPTABLE.

4., OFFERS a) DEMANDING ADVANCE PAYMENT, b) WITH NON-CONFIRMATION OF PBG AND d) WITH OFFER VALIDITY OF LESS THAN 4 MONTHS WILL BE REJECTED.

5., IF THE DUE DATE OF TENDER OPENING HAPPENS TO BE A HOLIDAY, THOSE TENDERS WILL BE OPENED ON NEXT WORKING DAYS.

6., ANY CLARIFICATIONS OR PRE-BID MEETING MAY BE SOUGHT BY BIDDER FROM THE UNDERSIGNED WITH DUE WRITTEN REQUESTS AT LEAST TEN (10) DAYS PRIOR TO TENDER DUE DATE.

GENERAL NOTE FOR THE ENQ ON REVERSE AUCTION

SUBMIT THE QUOTATION IN TWO PARTS I.E FIRST PART TECHNO COMMERCIAL BID EXCLUDING PRICES, TAXES ETC AS PER THE ENCLOSED FORMAT ANNEXURE "V" AND THE SECOND PART PRICE BID TOGETHER , BUT IN SEPARATE SEALED COVERS , ON OR BEFORE THE DUE DATE.

1. THE ENQUIRY NO AND THE TYPE OF BID I.E PRICE BID OR TECHNO COMMERCIAL BID AS APPLICABLE SHALL BE INDICATED CLEARLY IN THE POSTAL COVER AND ALL ENVELOP.

2. BHEL RESERVES THE RIGHT TO GO FOR A REVERSE AUCTION (RA) INSTEAD OF OPENING THE SUBMITTED SEALED BID, WHICH WILL BE DECIDED AFTER TECHNICAL EVALUATION. INFORMATION AND GENERAL TERMS AND CONDITIONS GOVERNING RA ARE GIVEN IN ANNEXURE-I.

3. REVERSE AUCTION IS DONE THROUGH INTERNET/E-MAIL . HENCE VENDORS SHALL MAKE THEMSELVES EQUIPPED WITH EMAIL , FAX AND INTERNET FACILITIES.

4. IN CASE OF GOING FOR REVERSE AUCTION VENDORS WILL BE SUITABLY INFORMED ABOUT THE WORKING PROCEDURES OF REVERSE AUCTION AND BHEL WILL PROVIDE ALL THE RELEVANT DETAILS TO ENABLE THE VENDOR TO PARTICIPATE.


5. TEST CERTIFICATE AND GUARANTEE CERTIFICATE IS REQUIRED ALONG WITH SUPPLY.

List of Attachments

1. Annexure-A Scope of supply and works-9 Pages
2. Annexure-I General terms and conditions of RA-1 Page
3. Annexure-II Commercial terms and conditions-3 Pages
4. Annexure-III Commercial Confirmations-1 Page
5. Annexure-IV Model price bid format-1 Page
6. Annexure-V Check list for conducting RA-1 Page
7. DWG.No.2M18B1004708.pdf
8. DWG.No.3M18B0612653.pdf

The offers should reach us before the time of opening of tenders.
The offers will be opened at 14:30 hours on the due date in the presence of the tenderers who may like to be present.
Late tenders are liable to be rejected.

Yours faithfully,
For BHARAT HEAVY ELECTRICALS LIMITED


27/3/09
MANAGER / PURCHASE
(FOSSIL BOILERS)
Yours faithfully,



BHARAT HEAVY ELECTRICALS LIMITED

(A Government of India Undertaking)
HIGH PRESSURE BOILER PLANT
PURCHASE DEPARTMENT - FOSSIL BOILERS
THIRUCHIRAPALLI - 620014
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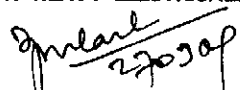
Enclosures:

"LD clause has to be confirmed without fail."

"Payment to vendors will be made only thro E-Payment mode"

The offers should reach us before the time of opening of tenders.
The offers will be opened at 14:30 hours on the due date in the presence of the
tenderers who may like to be present.
Late tenders are liable to be rejected.

Yours faithfully,
For **BHARAT HEAVY ELECTRICALS LIMITED**


MANAGER / PURCHASE
(FOSSIL BOILERS)
Yours faithfully,

S no	DESCRIPTION	BHEL SPECIFICATION	BIDDER'S OFFER	DEVIATION / REMARK																
Item no 10	Nmae of work	DRIVE ROLLER DRAWING NO. 3M-18B-06-12653																		
	Specification for cabin Roller of Roller Hearth CDF FURNACE																			
I	Application:	To support the boiler tubular coil and to convey the coil from infined to discharge at Temperature of the furnace 1100 degree Celsius.																		
II	Scope of supply:	1. Supply & manufacturing includes casting of roller and forging of shaft, welding the shaft, machining and fabrication as per drawing and the entire assembled rollers will be inspected for performance as per .DRAWING NO. 3M-18B-06-12653																		
		2. Quantity required = 6 nos																		
III	.Material	Suppliers scope																		
IV	.Material specification.	A.Sleeves :IS4522 GR-11/ASTM A297 GR-HN having the following chemical composition. <table><tr><td>%C</td><td>%Cr</td><td>%Ni</td><td>%Si</td></tr><tr><td>0.2~0.5</td><td>19.0~23.0</td><td>23.0~27.0</td><td>2.0Max</td></tr><tr><td>%Mn</td><td>%Mo</td><td>%S</td><td>%P</td></tr><tr><td>1.00Max</td><td>0.50Max</td><td>0.050Max</td><td>0.050Max</td></tr></table> C.Shafts:IS-7283 GR-45 C8 D.Plates: IS-2062 GR-FE419WB	%C	%Cr	%Ni	%Si	0.2~0.5	19.0~23.0	23.0~27.0	2.0Max	%Mn	%Mo	%S	%P	1.00Max	0.50Max	0.050Max	0.050Max		
%C	%Cr	%Ni	%Si																	
0.2~0.5	19.0~23.0	23.0~27.0	2.0Max																	
%Mn	%Mo	%S	%P																	
1.00Max	0.50Max	0.050Max	0.050Max																	

S no	DESCRIPTION	BHEL SPECIFICATION	BIDDER'S OFFER	DEVIATION / REMARK
	.Sequence of manufacturing and assembly:	<p>a. The drive roller as per the material specification shall be manufactured by melting of virgin charge with low sulphur and phosphorous content in induction melting furnace to achieve desired chemical composition. Ladle deoxidation with argon purging.</p> <p>b. The casting will be done by centrifugal casting furnace process /equivalent process where the molten metal will be introduced into the mold which will be rotated during solidification of the casting. The centrifugal force produced by rotation will be large compared with normal hydrostatic force and during pouring, the force will be used to distribute liquid metal over the outer surface of the mould, further, there will be a development of high pressure in the casting during freezing. This is in conjunction with directional solidification, will assist feeding and will accelerate the separation of non metallic inculcation and precipitated gases.</p> <p>c. Casting would be duly fettled and visually inspected for surface defects prior to machining. Machining will be done in Precision machines and all burs and sharp edges will be removed. Deviations if any for intoleranced dimensions and mass shall be governed by IS: 4897-76</p> <p>d. Heat treatment shall be carried out as per the required cycle to attain the desired mechanical properties and HT graph chart as to be submitted during inspection to BHEL engineer and submitted along with supply.</p> <p>e. The drive roller shall be manufactured by making ingots of above grade and subsequent forging of rounds of desired dimensions after proper normalizing treatment and with at least 50% reduction. Care would be taken that the flow of grains for the rounds is unidirectional along the entire length during forging operation.</p> <p>f. Normalizing of the rounds will be done in electrically operated Heat Treatment furnace with proper homogenization to ensure refined grain structure and to remove forge stresses. This would be followed by surface conditioning and rough machining.</p>		

S no	DESCRIPTION	BHEL SPECIFICATION	BIDDER'S OFFER	DEVIATION / REMARK
		<p>g. After HT the roller will be checked by UST using 4MHz probe to detect all longitudinal and transverse defects, such as cracks, pipes etc, which are harmful. Complete loss of back wall echo and defect echo of height exceeding 20% of the original back wall echo will be considered unacceptable. After ensuring that the material is perfect the rollers will be machined as per drawing.</p> <p>h. After the vendors checks from your end the components shall be offered to BHEL for inspection along with your internal inspection reports prior to welding of end supports. Fabrication of end supports will be carried out with the help of jigs and fixtures after cutting the V groove to ensure perfect alignment and trueness.</p> <p>i. Welding will be carried out with quality electrodes .During welding the beads will be weaved for uniform deposition and slag will be thoroughly cleaned between passes.</p>		

S no	DESCRIPTION	BHEL SPECIFICATION	BIDDER'S OFFER	DEVIATION / REMARK
	4.Quality Assurance:	<p>a. The input material for the foundry will be checked for chemical composition and verified .After the necessary checks material will be fettled and finished prior to further processing. The weld area will be checked for cracks by dye penetration examination. In case of any raw material from outside if used for manufacturing will also be subjected to checks for chemical composition and for fractures and grain structures. The material after forging will once again be checked for fractures and will be stress relived prior to machining.</p> <p>b. Periodical stage inspection may be carried out by our BHEL authorized personnel with prior intimation.</p> <p>Sub-Assembly Inspection: Individual components shall be inspected after machining to ensure that the material finished is within specified tolerance and will not face any problem during assembly stage.</p> <p>c. Test certificate: Necessary test certificate from Govt. approved Test Laboratory shall be provided for material specification UT,LPI,HT etc as applicable to substantiate the quality of material for trouble free operation.</p>		

S no	DESCRIPTION	BHEL SPECIFICATION	BIDDER'S OFFER	DEVIATION / REMARK
	5. Guarantee Certificate:	The materials supplied by us will be guarantee for satisfactory performance against any mfg defects, raw material defects, bad workmanship etc, for a period of 18 months from the date of dispatch or 12 months from the date of commissioning whichever is earlier. The guarantee certificate to the above will accompany the dispatch documents.		
VI	Note:	The supplier should provide point to point confirmation in the above scope / specifications along with offer .		
Item 20				
	Name of work	Manufacture and supply of CABIN ROLLER DRAWING NO. 2M-18B-100-4708		
	QUANTITY REQUIRED	10 NOS		
SNO	DESCRIPTION	BHEL SPECIFICATION	BIDDER'S OFFER	DEVIATION / REMARK
	Specification for cabin Roller of Roller Hearth HTF FURNACE			
I	Application:	To support the boiler tubular coil and to convey the coil from infed to discharge at Temperature of the furnace 1100 degree Celsius.		
II	Scope of supply:	Supply & manufacturing includes casting of roller and forging of shaft, welding the shaft, machining and fabrication as per drawing and the entire assembled rollers will be inspected for performance.		
	1. Material:	Suppliers scope		

S no	DESCRIPTION	BHEL SPECIFICATION	BIDDER'S OFFER	DEVIATION / REMARK
	2.Material specification.	A.Sleeves :IS4522 GR-11/ASTM A297 GR-HN having the following chemical composition. %C %Cr %Ni 0.2~0.5 19.0~23.0 23.0~27. 0 2.0Max %Mn %Mo %S %P 1.00Max 0.50Max 0.050Max 0.050Max C.Shafts:IS-7283 GR-45 C8 D.Plates: IS-2062 GR-FE419WB		
	3.Sequence of manufacturing and assembly:			
		a.The drive roller as per the material specification shall be manufactured by melting of virgin charge with low sulphur and phosphorous content in induction melting furnace to achieve desired chemical composition. Ladle deoxidation with argon purging.		
		b.The casting will be done by centrifugal casting furnace process /equivalent process where the molten metal will be introduced into the mold which will be rotated during solidification of the casting. The centrifugal force produced by rotation will be large compared with normal hydrostatic force and during pouring, the force will be used to distribute liquid metal over the outer surface of the mould, further, there will be a development of high pressure in the casting during freezing. This is in conjunction with directional solidification, will assist feeding and will accelerate the separation of non metallic inculcation and precipitated gases.		

S no	DESCRIPTION	BHEL SPECIFICATION	BIDDER'S OFFER	DEVIATION / REMARK
		c. Casting would be duly fettled and visually inspected for surface defects prior to machining. Machining will be done in Precision machines and all burs and sharp edges will be removed. Deviations if any for untoleranced dimensions and mass shall be governed by IS: 4897-76		
		d. Heat treatment shall be carried out as per the required cycle to attain the desired mechanical properties and HT graph chart as to be submitted during inspection to BHEL engineer and submitted along with supply.		
		e. The drive roller shall be manufactured by making ingots of above grade and subsequent forging of rounds of desired dimensions after proper normalizing treatment and with at least 50% reduction. Care would be taken that the flow of grains for the rounds is unidirectional along the entire length during forging operation.		

S no	DESCRIPTION	BHEL SPECIFICATION	BIDDER'S OFFER	DEVIATION / REMARK
		f. Normalizing of the rounds will be done in electrically operated Heat Treatment furnace with proper homogenization to ensure refined grain structure and to remove forge stresses. This would be followed by surface conditioning and rough machining.		
		g. After HT the roller will be checked by UST using 4MHz probe to detect all longitudinal and transverse defects, such as cracks, pipes etc, which are harmful. Complete loss of back wall echo and defect echo of height exceeding 20% of the original back wall echo will be considered unacceptable. After ensuring that the material is perfect the rollers will be machined as per drawing.		
		h. After the vendors checks from your end the components shall be offered to BHEL for inspection along with your internal inspection reports prior to welding of end supports. Fabrication of end supports will be carried out with the help of jigs and fixtures after cutting the V groove to ensure perfect alignment and trueness.		
		i. Welding will be carried out with quality electrodes .During welding the beads will be weaved for uniform deposition and slag will be thoroughly cleaned between passes.		

S no	DESCRIPTION	BHEL SPECIFICATION	BIDDER'S OFFER	DEVIATION / REMARK
IV	Quality Assurance:	<p>a. The input material for the foundry will be checked for chemical composition and verified .After the necessary checks material will be fettled and finished prior to further processing. The weld area will be checked for cracks by dye penetration examination. In case of any raw material from outside if used for manufacturing will also be subjected to checks for chemical composition and for fractures and grain structures. The material after forging will once again be checked for fractures and will be stress relieved prior to machining.</p> <p>b. Periodical stage inspection may be carried out by our BHEL authorized personnel with prior intimation.</p>		
V	Sub-Assembly Inspection:	Individual components shall be inspected after machining to ensure that the material finished is within specified tolerance and will not face any problem during assembly stage.		
VI	c. Test certificate:	Necessary test certificate from Govt. approved Test Laboratory shall be provided for material specification UT,LPI,HT etc as applicable to substantiate the quality of material for trouble free operation.		
VII	5.Guarantee Certificate:	The materials supplied by us will be guarantee for satisfactory performance against any mfg defects, raw material defects, bad workmanship etc, for a period of 18 months from the date of dispatch or 12 months from the date of commissioning whichever is earlier. The guarantee certificate to the above will accompany the dispatch documents.		
VIII	Note	The supplier should provide point to point confirmation in the above scope / specifications along with offer		

GENERAL TERMS AND CONDITIONS OF RA

Against this enquiry for the subject item/system with detailed scope of supply as per enquiry specifications, BHEL may resort to "REVERSE AUCTION PROCEDURE" i.e., ON LINE BIDDING ON INTERNET.

1. For the proposed reverse auction, technically and commercially acceptable bidders only shall be eligible to participate.
2. BHEL will engage the services of a service provider who will provide all necessary training and assistance before commencement of on line bidding on internet.
3. BHEL will inform the vendor in writing in case of reverse auction, the details of Service Provider to enable them to contact & get trained.
4. Business rules like event date, time, Start price, bid decrement, extensions etc. also will be communicated through service provider for compliance.
5. Vendors have to fax the Compliance form in the prescribed format (provided by Service provider) before start of Reverse auction. Without this, the vendor will not be eligible to Participate in the event.
6. BHEL will provide the calculation sheet (e.g., EXCEL sheet) which will help to arrive at "Total Cost to BHEL" like Packing & forwarding charges, Taxes and Duties, Freight charges, Insurance, Service Tax for Services and loading factors (for non-compliance to BHEL standard Commercial terms & conditions) for each of the vendor to enable them to fill-in the price and keep it ready for keying in during the Auction.
7. Reverse auction will be conducted on scheduled date & time.
8. At the end of Reverse Auction event, the lowest bidder value will be known on the network.
9. The lowest bidder has to Fax the duly signed Filled-in prescribed format as provided on case-to-case basis to BHEL through Service provider within 24 hours of Auction without fail.
10. Any variation between the on-line bid value and the signed document will be considered as sabotaging the tender process and will invite disqualification of vendor to conduct business with BHEL as per prevailing procedure.
11. In case BHEL decides not to go for Reverse Auction procedure for this tender enquiry, the Price bids and price impacts, if any, already submitted and available with BHEL shall be opened as per BHEL's standard practice.

CAPITAL PURCHASE

COMMERCIAL TERMS AND CONDITIONS

1.0 QUOTATIONS

The Bidders shall submit the offer in **TWO INNER ENVELOPES** as indicated below which shall be sealed in one outer envelope.

Envelope I This sealed envelope should contain all the copies of technical bid together with un-priced commercial bid. This envelope should be clearly marked "**Part I - Technical and commercial bid**", indicating Enquiry No., Due Date and Address & Reference of the Bidder.

Envelope II This sealed envelope should contain **price details**. This envelope should be clearly marked "**Part II - Price bid**", indicating Enquiry No., Due Date and Address & Reference of the Bidder.

Both the envelopes (Part I & II) shall be put in one cover, duly sealed, superscribing as Part I and Part II of Enquiry No., due date of opening and the address and reference of the Bidder.

The above offer should reach this office on or before the due date by 14.00 Hrs (IST). Late offers will not be considered.

Tender should not be addressed to any Individual's name but only by designation to:

**MANAGER / CAPITAL PURCHASE / MM / FB
BHARAT HEAVY ELECTRICALS LIMITED
HIGH PRESSURE BOILER PLANT
TIRUCHIRAPALLI - 620 014
TAMIL NADU, INDIA**

Tenders should be free from **CORRECTION AND ERASURES**, Corrections if any, must be attested. All amount shall be indicated both in words as well as in figures. Where there is difference between amount quoted in words and figures, amount quoted in words shall prevail.

Offers should be in **ENGLISH** and accompanied by detailed technical literature, catalogue and detailed dimensional drawings in **ENGLISH** or otherwise, the offers will not be considered.

2.0 PART I (TECHNICAL & COMMERCIAL BID)

2.1 Technical

This part shall include / indicate the following :

- 2.1.1. Offer should contain complete scope of supply with all technical details, specifications, delivery and other commercial terms and conditions.
- 2.1.2. Point by point confirmation for the Technical Specification enclosed to be provided. if there are any deviation, the same should be clearly specified. Offers received without confirmation to our specification will be rejected.
- 2.1.3. List of customers to whom same or similar equipment have been supplied along with performance certificates to be enclosed.
- 2.1.4. Relevant catalogues to be attached
- 2.1.5. List of spares parts (with part numbers) for two years operation and maintenance should be attached.
- 2.1.6. Information on shipping weight and cubage (length, width & height) to be provided.
- 2.1.7. Incase of foreign bidder offer, the Principal's technical offer should be enclosed.

2.2 Commercial

This part shall include / indicate the following :

- 2.2.1. Port of shipment / Station of despatch
- 2.2.2. Terms of payment
- 2.2.3. Taxes & duties applicable.
- 2.2.4. Delivery Schedule
- 2.2.5. Offer validity
- 2.2.6. Country of origin
- 2.2.7. Percentage of agency commission if any along with a copy of Agency agreement.
- 2.2.8. A copy of "Un-Priced Part II" i.e., a copy of the Price Bid **without the price details** to be enclosed.

3.0 PART II (PRICE- BID)

This part should contain the schedule of price particulars and to be co-related to the technical details provided in Part I.

4.0 OPENING OF TENDERS

The Part I - Technical & commercial bid alone would be opened on the Tender opening date.

The Part II - Price bid of Technically suitable Bidders alone would be opened. The Technically suitable Bidders would be informed about the tender opening date.

Clarifications if any required by BHEL for Technical evaluation would be sought from Bidders before opening of Part II - price bid.

5.0 GENERAL

5.1. Incomplete offers will not be considered.

5.2. **Fixed price:** Prices quoted by the bidder shall be fixed and not subject to any escalation whatsoever during the period of bid validity and execution of the Purchase Order. A bid submitted with an adjustable price will be treated as non - responsive and rejected. Prices shall be written in words and figures. In the event of difference, the price in words shall be valid and binding. Unit prices shall be considered correct in the event of any discrepancy with regard to total price.

5.3. **Bid currency:** Indian bidders should submit the prices only in Indian Rupees. Foreign bidders may submit their bid in their home currency.

5.4. **Terms of Delivery:** Bidders are required to quote their best delivery period. Foreign Bidders should submit their offer for net **FOB / FCA - Nearest Sea Port / Air Port**. Indian Bidders should submit their offer for **FOR Despatching station**. Delivery shall be counted from the date of Letter of Intent.

5.5. **Taxes and Duties :** All Taxes and Duties payable as extra to the quoted price should be specifically stated in offers along with CST & VAT / Tariff No. etc., failing which the purchaser will not be liable for payment of such Taxes and Duties. Our TNGST No. 356005 Dt. 04-04-1995, CST. No. 239383 Dt. 11-06-1991.

5.6. **Validity :** The offers for main equipment and spares shall be kept open for acceptance for **120 days (one hundred and twenty days)** from the date of opening of the tender (Part I).

5.7. Terms of Payment :**5.7.1. Indian Bidders**

5.7.1.1. The preferred payment terms are indicated below :

5.7.1.2. 100% payment, within 45 to 90 days, after receipt / acceptance / commissioning of equipment at BHEL, Tiruchi, against 10% Performance Bank Guarantee on total order value.

or

5.7.1.3. 80% payment against documents through bank within 45 to 90 days, (after pre-despatch inspection) and balance 20% payment after receipt / acceptance / commissioning of the equipment against 10% Performance Bank Guarantee on total order value.

5.7.2. Foreign Bidders

An Irrevocable Letter of Credit shall be established for 80% of the value of the goods. Balance 20% shall be paid on receipt / acceptance / commissioning of the goods at BHEL against 10% Performance Bank Guarantee on total order value. All bank charges outside India are to Vendor's account. Letter of Credit shall be opened through a branch of State Bank of India in the country where order shall be placed. In case, in the country where order is placed, State Bank of India is not there, Letter of Credit will be opened through our bankers or as permitted by Government of India. All bank charges outside India are to supplier's account. Lump sum erection and commissioning charges, if any, shall be payable after satisfactory erection and commissioning of the equipment by sight draft against certificate issued by the competent authority.

5.7.3 Common to both Indian & Foreign Bidders

E&C charges will be released after deduction of Income Tax as per the Govt. of India rules. The TDS certificate will be issued by BHEL. Applicable service tax on E&C charges will be payable extra. The liability of depositing the same to the Govt. will be of the supplier.

- 5.8. **Performance Bank Guarantee (PBG):** The Bidder, in the event of an order, should furnish a bank Guarantee from an Indian Bank approved by BHEL, at no extra cost in a proforma prescribed by BHEL, alongwith the order, for an amount equivalent to **10% (Ten percent)** of the value of the contract. The PBG shall be valid for period of 18 months from the date of despatch or **12 months** from the date of receipt / acceptance / commissioning of the equipment at BHEL, Tiruchi which ever is more, with a claim period of two months.

The Performance Bank Guarantee shall be obtained from any one of the following banks who is a member bank in our consortium of banks.

State Bank of India, 2) State Bank of Hyderabad, 3) State Bank of Travancore, 4) State Bank of Mysore, 5) Canara Bank, 6) Bank of Baroda, 7) Punjab National Bank, 8) Deutsche Bank, 9) HDFC Bank, 10) Standard Chartered Bank, 11) Citi Bank, 12) Standard Chartered Grindlays Bank, & 13) Bank of America or any other Nationalised Bank.

- 5.9. **Liquidated damages :** It is clearly understood among the parties to the contract the “ **Time is the essence of the contract** ”. Therefore, the delivery of the goods specified in the purchase order should be made within the time prescribed. Where the seller supplies or despatches the goods, beyond the delivery period specified the purchaser will have no obligation to accept the goods. If accepted liquidated damages at the rate of 1/2% of the value of goods delayed for each week of delay subject to a maximum of 15% of the order value will be levied.
- 5.10. **Risk purchase :** Alternatively the purchaser at his option will be entitled to terminate the contract and to purchase elsewhere at the risk and cost of the seller either the whole of the goods or any part which the supplier has failed to deliver or despatch within the time stipulated as aforesaid or if the same were not available, the best and the nearest available substitute therefor. The supplier shall be liable for any loss which the Purchaser may sustain by reason of such risk purchases.
- 5.11. **Agency commission :** In case of Foreign Bidders, agency commission if any, payable to their Indian Agents, shall shown separately in the Offer. This will be paid by us in India, in Indian Rupees, on satisfactory completion of the Contract. Copies of current Agency Agreement / Authorization Letter in respect of Agency Commission shall be furnished alongwith offer. For calculation of Rupee equivalent of Agency Commission, exchange rate as prevailing on the date of offer will be taken.
- 5.12. **Inspection & Testing:** All goods shall be subject to inspection by BHEL or its authorized representatives at supplier's works or at BHEL stores or at any other place in India indicated by BHEL as the case may be. The supplier will not charge for the facilities provided for inspection of goods. In case of machine tools, the machine would be inspected and proved at supplier's works prior to dispatch however, final inspection and acceptance of the machine will be carried after installation of the machine at BHEL, Tiruchirappalli.
- 5.13. **Test certificates / Operating and Maintenance manuals :** The Bidders shall clearly mention in their offer, that Test Certificates and Operating Maintenance Manuals, etc., as called for in the Technical Specification, in the required number of copies will be provided at no extra cost.
- 5.14. **Modvat credit :** (for Indian Bidders only) If any Excise Duty is payable, the chapter head / sub-head reference and the rate of the duty should be quoted. If the tender is availing MODVAT credit for his input materials, the effect of proforma credit should be passed on to the purchaser.
- 5.15. **Packing and marking :** The Supplier shall arrange for securely protecting and packing the stores to avoid loss or damages during transit.
- 5.16. BHEL shall be at liberty to reject or accept any tender, part or in full, at their own discretion and any such action is not liable for any question or claim against BHEL.
- 5.17. **BHEL reserves the right to go for a Reverse Auction (RA)** instead of Opening the submitted sealed bid, which will be decided after technical evaluation. Information and general terms and conditions governing RA are given below.

For any queries / clarifications the bidders may contact us through our FAX NO. +91 431 2520719 or through e-mail balasund@bheltry.co.in .

Bharat Heavy Electricals Limited, Trichirapalli – 620 014**Annexure-III****MM : CAPITAL PURCHASE****((Check List - to be filled and submitted along with Offer))**

BHEL Commercial Terms and Conditions for Indigenous Supplies	Vendor's Confirmation / Comments
Technical confirmation to BHEL's Specification as called for in BHEL Format shall be furnished. If needed additional sheets shall be used.	
Prices shall be quoted item wise only as per the model format enclosed.	
Prices shall be quoted on " FIRM PRICE " basis only. The prices should be only on F.O.R / Despatching station basis inclusive of Packing & Forwarding charges if any. Applicable % of ED & Sales Tax , Freight & Insurance, Installation & Commissioning Charges should be clearly indicated.	
Validity of offer shall be for a minimum period of 120 days from the date of Tender opening	
Delivery period from the date of Letter of Intent / Purchase order shall be clearly mentioned in the offer.	
Liquidated damages @ ½% per week subject to a maximum of 15% of the order value shall be applicable for delay in deliveries.	
Following Risk Purchase clause shall be applicable: The purchaser at his option will be entitled to terminate the contract and to purchase elsewhere at the risk and cost of the seller either the whole of the goods or any part which the supplier has failed to deliver or dispatch within the time stipulated or if the same were not available, the best and the nearest available substitute therefore. The supplier shall be liable for any loss which the Purchaser may sustain by reason of such risk purchases.	
Submission of Performance Bank Guarantee (PBG): Vendor should provide a performance bank guarantee(PBG) for 10% of the total Purchase order value valid for a period of 12 months from the date of commissioning (or) 18 months from the date of dispatch whichever is later with an additional claim period of 2 months. This PBG shall form one of the documents for effecting payment. The PBG shall be submitted in non-judicial stamp paper value of not less than Rs.80/- issued by any one of the following banks who is a member bank in our consortium of banks. 1) State Bank of India, 2) State Bank of Hyderabad, 3) State Bank of Travancore, 4) State Bank of Mysore, 5) Canara bank, 6) Bank of Baroda, 7) Punjab National bank, 8) Deutsche Bank, 9) HDFC Bank, 10) Standard Chartered Bank, 11) Citi Bank, 12) Standard Chartered Grindlays Bank 13) Bank of America and 14) Any one of the Nationalised banks.	
Payment terms for supply portion: <ul style="list-style-type: none"> 100% payment will be made within 45 to 90 days after receipt and acceptance / commissioning of goods at BHEL. against submission of PBG for 10% of Order value with required validity. (or) * 80% value of the goods will be paid within 45 to 90 days against dispatch documents negotiated through bank. Balance 20% will be paid within 45 to 90 days from the date of acceptance / commissioning of goods against submission of supplementary invoice and also against submission of PBG for 10% of Order value with required validity. All bank charges are to vendor's account only. 	
Erection / commissioning: Erection / commissioning charges if any has been mentioned in the offer or else confirmation that Erection / commissioning shall be done at free of cost is available in the offer.	
The equipment shall be guaranteed for a period of 12 months from the date of commissioning.	
Equipment will be inspected and proved at vendor's works prior to dispatch. However final inspection and acceptance of equipment will be after installation at BHEL,Trichy.	
The vendor shall provide necessary drawings,Test Certificates and Operating Maintenance Manuals etc., as called for in the Technical Specification, in the required number of copies at no extra cost.	
Any warranty replacement during warranty period shall be supplied free of charge on FOR BHEL, Trichy basis.	
Offers should be submitted only in sealed cover super-scribing clearly the Enquiry reference and due date.	

NOTE:-

- It is confirmed that all the terms and conditions stipulated in the Enquiry have been fully understood by us and all clarifications & details have been obtained.
- Your offer should be indicating applicable if any P&F Charges, % of ED, Sales Tax -CST or VAT, Service Tax), Freight, Insurance and Installation and Commissioning Charges etc., as per our Price Format.
- Your specific acceptance to our Payment terms, LD, Risk Purchase Clause & Submission of PBG for 10% of the order value are essential for consideration of your offer. Other wise your offer is liable for rejection.

Signature & Office Seal of the vendor

MODEL PRICE BID FORMAT FOR INDIAN BIDDERS

Enquiry No. & Date:

Bidder's Offer No. & Date:

SI No.	Description of item	Unit	Quantity	Rate in Rs.	Value in Rs.
	The price indicated shall be inclusive of all accessories, spares etc. as given in the scope of supply. Individual item-wise break-up price shall be attached as an annexure to this price bid format.				
	Ex-Works value in Rs.				
	Packing & Forwarding charges (if any) in Rs (or) percentage				
	FOR Dispatching station value in Rs.				
	Excise Duty (indicate the % as well as value)				
	% Of TAX (TNGST with FORM-17 or CST with C-FORM)				
	% Of TAX (TNGST without FORM-17 or CST with C-FORM)				
	Any other taxes/duties applicable (indicate the % as well as value)				
	Percentage of Freight & transit insurance charges, if any (Lumpsum) Freight charges from Dispatching station to BHEL, Tiruchirappalli (Note: If the delivery terms is Ex Works the materials has to be sent through BHEL approved carrier only, in this case the freight will be borne by BHEL)				
	Erection & Commissioning Charges in Rs				
	% of Service Tax if applicable extra				
	Approximate Net weight of the total consignment				
	Approximate Gross weight of the total consignment				
	Approximate Dimensions of the Consignment				

Signature & Seal of Vendor

The price bid should be submitted only as per the above format. No row shall be left blank.
Please indicate NA, in case the item is "not applicable"

CHECK LIST FOR CONDUCTING RA

Annexure-V

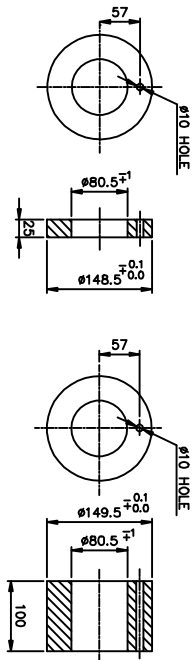
BHEL ENQUIRY NO & DATE

VENDOR OFFER REF NO & DTAE

SL NO.	Commercial Terms	In % or Text	Remarks
01	Delivery Terms (Ex-W Basis or For Destination Basis)		
02	% of Excise Duty		
03	% of Education Cess		
04	% of TAX (CST/VAT) (TNGST with FORM-17 or CST with C-FORM)		
05	% Of TAX (CST/VAT) (TNGST without FORM-17 or CST without C-FORM)		
06	% of Service Tax if applicable		
07	Packing & Forwarding Charges (either in % or lumpsum)		
08	% of Freight & Transit Insurance charges if any (Lumpsum) (Note:If the delivery terms is Ex Works the materials has to be sent through BHEL approved carrier only ,in this case the freight & insurance charge will be borne by BHEL)		
09	Price Validity		
10	Payment Terms		As per Annexure-II
11	LD Acceptance		As per Annexure-II
12	Risk Purchase Clause		As per Annexure-II
13	PBG Acceptance , if applicable		As per Annexure-II
14	Delivery from the date of receipt of PO		
15	Quantity Tolerance, if applicable		
16	Approximate Gross Weight, Net. Weight & Dimensions of the Consignment		
17	As per Clause 5.17 of Commercial terms and conditions acceptance for participation in Reverse auction (RA).		Yes/No to be indicated
18	Name of the person for participating in reverse auction.		
	Land Line Number		
	Fax Number		
	Mobile Number		
	E-mail ID		

Signature & Seal of Vendor

GROOVE SHALL BE MADE
TO SUIT THE GRUB SCREW
OF UCF-213 ON THIS
SIDE ONLY.



ITEM No.05





EQUIVALENT ASTM A297/A297M
GRADE HN.

NOTE:-

FOLLOWING TESTS WILL BE CARRIED OUT

- 1.CHEMICAL ANALYSIS.**
- 2.PNEUMATIC PRESSURE TEST @5kg/cm2(g).**
- 3.D.P TEST FOR ALL WELD JOINTS.**

02	PL25WD, 80, 5X00, 149, 5	Fe-410 WB	IS-2062	5, 05	06
02	PL100KH, 80, 5X00, 149, 5	Fe-410 WB	IS-2062	20, 22	05
01	SHAFT #80X1128L	45 CR	IS-7283	43, 97	03
01	SHAFT #80X1053L	45 CR	IS-7283	41, 05	04
02	TAPER SLEEVE	***	***	48, 08	02
01	ROLLER-#200X3800X25TH	***	***	417, 53	01

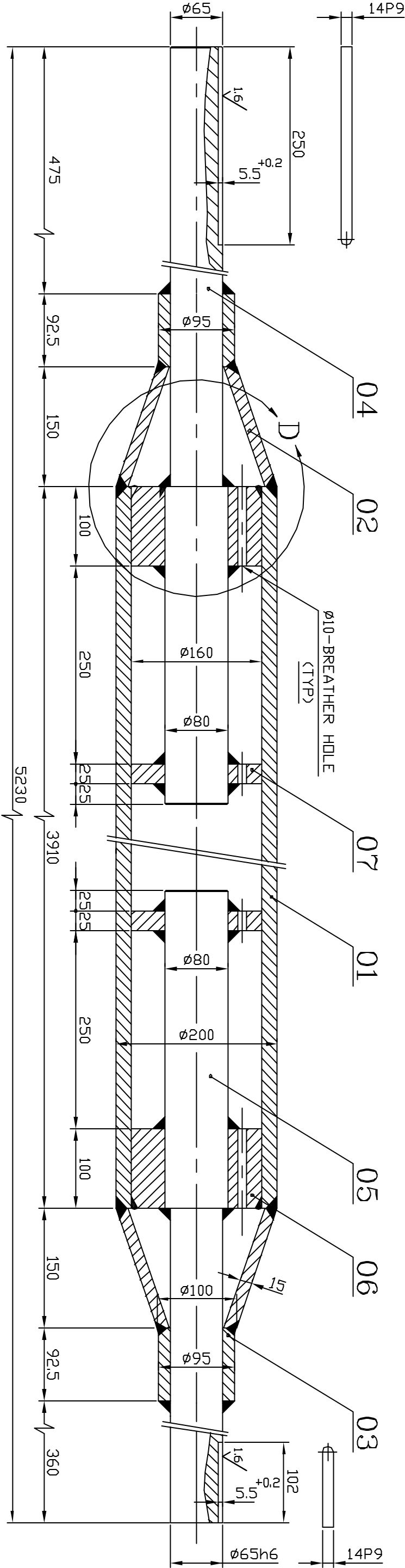
							
TITLE:		MACHINE:		REFERENCE:		MATERIAL:	
FURNACE ROLLERS (CDF FURNACE)		CONTINUOUS DISCHARGE FURNACE		4793/03/03		DIM 82 WAS 72 KEWAY LENGTH ADDED	
SCALE DRAWN		CHECKED		N.T.S. APPROVED		DATE:	
08-07-08		08-07-08		08-07-08		08-07-08	
TYPE: PRECISION CONTROL 3-CDF		DRAWING NO.		NET/LIN IN COS.		576.20	
DRIVING NO.		ICH REF		DATE		01	
2M18B10047708		01		01		01	
Sheet No		Heat Sheets		01		01	

ALL DIMENSIONS ARE IN MM

ø65h6	-0.000	14P9	-0.018
	-0.019		-0.061

6.3/1.6

CAUTION: THIS DRAWING IS OUR SOLE PROPERTY AND SHOULD NOT BE USED IN ANY FORM FOR ANY PURPOSE WITHOUT THE WRITTEN PERMISSION OF BHARAT HEAVY ELECTRICALS LIMITED TRICHIRAPPALLI - 620 014.



NOTE:

ALL WELDED CONSTRUCTION

02	PL. 25t×ID80×DD160	Fe410WB	IS:2062	5.9			07
02	PL. 100t×ID80×DD160	Fe410WB	IS:2062	23.6			06
01	SHAFT ø80×1002L	45c8	IS:7283	31.5			05
01	SHAFT ø80×1117L	45c8	IS:7283	34.5			04
02	SLEEVE DD95×15t×93L	Gr 11 A297	IS:4522 ASTM	5.5			03
02	TAPER SLEEVE DD200 (ø100)×15t×150L	Gr 11 A297	IS:4522 ASTM	10.3			02
01	SLEEVE ø200×20t×3910L	Gr 11 A297	IS:4522 ASTM	347.0			01
				458.3			
No of Pieces							
DESCRIPTION		MATERIAL	STANDARD	NET.WT IN KGS.	DRAWING NO.	ITEM No.	INDEX
REFERENCE:			ALTERATIONS:	DCN REF	DATE	SIGN.	
SCALE		DRAWN					
1 : 5		CHECKED					
		APPROVED					
DATE		17.10.05					
MACHINE: CONTINUOUS DISCHARGE FURNACE			TYPE: WELLMAN-CDF				
TITLE:			DRAWING No:				REV.
DRIVE ROLLER			3M18B0612653				
<INSIDE FURNACE>			Sheet No:		No of Sheets:		

DETAIL- 'D'