



# Bharat Heavy Electricals Limited

(High Pressure Boiler Plant)

Tiruchirappalli – 620014, TAMIL NADU, INDIA

MATERIALS MANAGEMENT / CAPITAL EQUIPMENT

An ISO 9001  
Company

## ENQUIRY

Phone: +91 431 257 76 53

Fax : +91 431 252 07 19

Email : [skaruna@bheltry.co.in](mailto:skaruna@bheltry.co.in)

Web : [www.bhel.com](http://www.bhel.com)

Enquiry  
Number:

2711200012

Enquiry  
Date:

28.06.2012

Due date for submission of  
quotation:

21.07.2012

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.

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.

Sl. No	Description	Quantity	Delivery (Item required at BHEL on)
1	Supply, Installation and Commissioning of Chip Conveyor with Coolant Filtering and Circulation for Cold Saw Machine as per the technical specification, general guidelines instructions & 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> )	02 Nos	01.10.2012

### Important points to be taken care during submission of offer

1. Checklist to be filled and enclosed along with the offer failing which, the offer will not be considered for evaluation.
2. Subsequent to the hosting of this Enquiry, any corrigendum to the Enquiry that may be hosted in the BHEL Web-site shall be viewed by the vendors regularly to know the details of corrigendum. In case if any vendor without seeing the corrigendum quoted as per original Enquiry and intimate that they have wrongly quoted will not be considered and rejected. However as per the appropriate Policy of BHEL action will be taken on them in this regard

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 above .

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

**S.KARUNANIDHY**

Sr. Manager

MM / Capital Equipment

BHEL, TRICHY-620 014

### Note :

1. Offer should be submitted in two part system as per terms and conditions enclosed.
2. The vendor shall guarantee their product for 18 months from the date of supply or 12 Months from the date of Commissioning whichever is earlier.



Specification for Chip Conveyor with coolant filtering and circulation system for Cold Saw M/c at  
Hot Mill – SSTP

Document No.:SSTP:HMM:001/00

Dt. 29/02/2012

**1. GENERAL:**

- 1.1 This document deals with requirements for submitting offers and executing the order on placement of Purchase order / Contract for the subject item. The equipment under this specification is required for hot rolling Mill in Seamless Steel Plant in BHEL, Tiruchirappalli, for chip conveyor and coolant circulation system at Cold saw machine.
- 1.2 Bidders have to submit the offers as below by filling in the "Vendor's response" column with relevant information against each point in the respective sections below by providing information on model no, parameters etc. The technical requirements shall also be confirmed for each clause.
- 1.3 Note: A just 'CONFIRMED' or 'COMPLIED' or 'YES' or 'NO-DEVIATION' or similar words in the "Vendor's response" column is not acceptable and may lead to disqualification of the Technical Offer.
- 1.4 Brand and model No. of the items offered must be indicated in the offer
- 1.5 The offer shall Consist of Sections:
  - 1.5.1 Part A:
    - a. General Requirements
    - b. Technical offer
    - c. Commercial terms and conditions
    - d. Un-priced Price bid as per Part B (i.e. Price bid as per list shown in Part B of this Specification with the price value blanked )
  - 1.5.2 Part B: Price bid for all items with split of major components:

Sl.No	Particulars	Qty	Rate
01			
02			
03			
04			
05			
06			

- 1.6 The supplier may visit SSTP and understand the requirements before bidding.
  - 1.6.1 List of spares with part identification no. (Tools, Mechanical, Electrical & Electronics) to be maintained for ensuring continuous operation with least delay time shall be provided in the offer with price.

**2. QUALIFYING CRITERIA FOR THE SUPPLY**

- 2.1. The VENDOR has to necessarily provide the following details, for making an assessment of the firm's capability and competency: [The VENDOR 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]



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Sl. No.	PARTICULARS	Vendor's response with ref. cl. No. of detailed offer.
1.0	Number of Years of Experience of the VENDOR in the field of design, manufacture and supply of chip conveyor and coolant filtering and circulation system in similar industries	
2.0	Number of systems supplied, installed and commissioned till date, in the QUOTED MODEL / Technology. Attach a reference list of customers with equipment type, model, year of supply and contact address.	
3.0	Details of Design Set-Up and Technology Back-Up if any for the PRINCIPAL Equipment Maker	
4.0	Details on International Standards followed in Design of the Equipment.	
5.0	Confirmation to performance testing requirement of the equipment prior to dispatch from supplier's end	
6.0	Details of Quality System followed (Kindly furnish the salient aspects of the QA system followed)	
7.0	Details on SERVICE-after-SALES Set-Up in India including the addresses of Agents/Service Centers in India and Asia	
8.0	Any Additional Data to supplement the manufacturing capability of the VENDOR	

2.2. The VENDOR has to compulsorily meet the following requirements to get qualified for submitting an offer for this test system. Confirmation against each clause is to be indicated in the space provided.

Sl. No.	REQUIREMENTS	Vendor's confirmation and ref. to detail enclosed
9.0	The VENDOR shall have a minimum of <u>2 Years</u> of Continuous Experience in the Design, Manufacture & Supply of 'equipments for similar purpose and industries'. Indicate the actual experience.	
9.0	The VENDOR shall have supplied at least 2 number of the equipment in offered model / Technology, within the last five years. The equipment shall be working satisfactorily at least for the past 2 years. Indicate the number of equipment (of quoted model / Technology) sold in India & Other Countries. Certificate for at least 1 equipment from a customer for satisfactory performance for the past 1 year shall be obtained and submitted with the offer.	



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2.3. The VENDOR has to comply with the following, for accepting the Technical Offer for scrutiny by the Purchaser. Confirmation against each clause is to be indicated in the space provided.

Sl. No.	REQUIREMENTS	Vendor's confirmation and ref. to detail enclosed
11.0	The Technical Offer shall be supported by Product Catalogue and Data Sheets in ORIGINAL and complete technical details. A schematic diagram shall be provided in the offer indicating all the items to be supplied.	
12.0	The Commercial Offer (given with the Technical Offer – Part I) shall contain the Scope of Supply and the Un-Priced Part of the Price-Bid, for confirmation of Scope of Supply.	
13.0	The points confirmed by the supplier based on the clarifications sought for the original offer shall be incorporated in the revised final offer wherever applicable. Pl. confirm	

### 3. JOB DESCRIPTION:

3.1. Seamless Steel Tubes are made by hot rolling in long lengths from billets. After hot rolling the tubes are moved to cold saws for end cutting. End cutting carried out by circular saws of width 10mm. During cutting operation coolant has to be applied to reduce heat generated by cutting and also the saw cut chips are to be taken out continuously. A system is required to remove the chips continuously from the machine and also supply coolant with filtering arrangement. The purpose of the system is chip conveying and supplying coolant with filter arrangement.

#### 3.2. Details of chips:

Type of chip material : Mild steel and Alloy steel  
Size of chip : min 0.1mm to max. 6x6x0.4mm, similar to milling machine chips from steel bars  
Chip generation : 15 Kg/Hr max  
Type of Coolant : Water emulsion, Oil  
Coolant flow rate : 5LPM min  
Material Temperature : 40 to 150 degree C

### 4 TECHNICAL DESCRIPTION OF CHIP CONVEYOR WITH COOLANT FILTERING AND CIRCULATION SYSTEM

4.1 The scope of supply shall include:

Type of Chip conveyor : Scraper conveyor  
Charge Length : 2600 mm  
Discharge height : 1500mm from GL  
Angle of inclination : 60 Degrees  
Pitch of chain : To be indicated in the offer  
Speed of conveyor : To be indicated in the offer



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Electric motor	: any ISI approved make. Speed and power to be indicated in the offer
Speed reducer	: Parameters to be indicated in the offer
Over load protection	: Limit switch
Colour	: Opaline green
Coolant Tank	: 500 liters capacity
Coolant pump	: Suitable capacity of standard make to be offered.
Tilting type chip bin	: 722 x580x800mm height
With required electrical panel and switches.	

- 4.2 The Coolant circulation and chip conveyor system shall be installed and commissioned by the supplier with required materials for integration. The control panel shall be placed in a control room from where the main equipment is operated. Sufficient length of cable and any compensation for electronic signal shall be provided.

## 5 **DOCUMENTATION**

- 5.1 The documentation shall be supplied along with the product, one-fold on paper and one-fold on CD-Rom in English language consisting of the following:  
installation manual, assembly drawing and part lists  
general description of function and function cycle  
maintenance instructions  
lubrication instructions  
operating instructions  
circuit diagram, cable list, etc.  
Installation drawings, which contain all sizes, cable channels and final layout

- 5.2 The documentation on CD-ROM shall be in the following format:  
Documents and lists in PDF format  
Drawings in DWG format  
Layout and foundation plan in DWG format

## 6 **INSTALLATION, PERFORMANCE & ACCEPTANCE OF THE SYSTEM:**

- 6.1 The system shall be installed and commissioned by the manufacturer of the system.  
6.2 The system shall be shipped after inspection and testing at Suppliers works by BHEL. 20 days prior notice shall be given for this inspection.  
6.3 The system performance shall be checked at site in actual working condition.  
6.4 Testing methods and acceptance norms for each subsystems for tests at Suppliers works and after installation shall be detailed out in the offer.  
6.5 The performance of the system shall be demonstrated for 8 hours shift.  
6.6 Service shall be provided by the supplier during guarantee period and also later through AMC. The system supplied must be supported by way of spares, availability and service for a minimum period of 10 years.  
6.7 Guarantee for the trouble free performance of the system shall be provided for min. 1 year for 3 shift operation. This shall be by way of performance Bank guaranty as applicable. The guarantees of the seller refer to



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Acceptance Test  
quality of operation  
life time performance  
and any other aspect agreed upon

7.0 **Training:**

7.1 Supplier shall provide operational and first level system maintenance training for 4 persons at BHEL.

Prepared

SUHAS KV  
ET  
HMP/SSTP  
BHEL

Reviewed and approved

**U. KUMARAVELAN**  
Sr. MANAGER  
Hot Mill Mech. Maintenance  
SSTP. BHEL. TRICHY