



Bharat Heavy Electricals Limited

(High Pressure Boiler Plant)

Tiruchirappalli – 620014, TAMIL NADU, INDIA

MATERIALS MANAGEMENT / CAPITAL EQUIPMENT

An ISO 9001
Company

ENQUIRY NOTICE INVITING TENDER	Phone: +91 431 257 7653 Fax : +91 431 252 0719 Email : skaruna@bheltry.co.in Web : www.bhel.com
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TWO PART BID	Enquiry Number:	Enquiry Date:	Due date for submission of quotation :
Tender to be submitted in Two Parts	2711200011	23.06.2012	25.07.2012

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.

Item No.	Item Description	Quantity
10	Hydraulic Power Pack for Crimping Press as per the technical Specification, & commercial conditions applicable (to be downloaded from web site www.bhel.com or http://tenders.gov.in)	01 Set

Important Points to be taken care during the submission of offer:-

The following List of drawings mentioned in the technical specification is available with Material Management / Capital Equipment:-

- 1) 2-7-1125-40-08039
- 2) 2-7-1125-40-08040
- 3) 2-7-1125-40-08041
- 4) 2-7-1125-40-08042

Interested vendors may collect the drawings from the above said Department by sending a request letter with a declaration stating that "the drawings will be returned along with the offer and shall not be copied in any form whatsoever since these drawings are property of BHEL". The letter can be sent vide e-mail to the ids skaruna@bheltry.co.in , saranyac@bheltry.co.in followed by a hard copy of the letter. The letter shall clearly mention postal address of the vendors with contact details.

BHEL's General guidelines /instructions including bank guarantee formats and list of consortium banks, commercial terms checklist 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) Tender Enquiry reference "2711200011".

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 Manager / MM / Capital Equipment
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Crimping Press Hydraulic Power Pack :

1.Scope :

Manufacture, supply, erection and commissioning as per hydraulic circuit drawings mentioned below and supply of valves as per scope of supply: HMM/SSTP/SC :
D 009/2012:01/rev.00 Dt:21.06.12

2.Quantity : 1 SET

3.List of drawings :

S.No	BHEL Drawing No	SMS Reference Drawing No
1.	2-7-1125-40-08039	5206924-04.000_01
2.	2-7-1125-40-08040	5206924-04.000_02
3.	2-7-1125-40-08041	5206924-04.000_03
4.	2-7-1125-40-08042	5206924-04.000_04

4.Operation:

Among four pumps in power pack, three pumps will be in operation and one will be in standby. Pressurized oil source from power pack actuates

- 1) Hydraulic cylinders in Crimping press which serves for pressing the front end of the hollow billet onto the front end of the mandrel bar.
- 2) Position controlled hydraulic cylinders to vertically adjust the mandrel bar guide rollers in Crimping line.

5.Technical data:

Pump Model : A4VSO180DP (4 Nos)

Operating Pressure: 160 Bar

Tank Capacity : 4000 ltrs

Oil Grade : SS 68

Electric Motor : 75 KW / 1450 rpm / 415V / 50 Hz

Control Voltage : 24V DC

6.Scope of Supply:

1. Supply of Hydraulic power pack
2. Supply of pipe lines between power pack & valve stand
3. Supply of valves
4. Erection of power pack
5. Erection of pipelines

Hydraulic power pack for Crimping press

A. Qualification Criteria

The BIDDER / VENDOR has to compulsorily meet the following requirements to get qualified for submitting an offer for the HYDRAULIC SYSTEM

S. No.	REQUIREMENTS	VENDOR's RESPONSE
1.	The BIDDER / VENDOR shall have a minimum of Ten Years of Continuous Experience in the Design and Manufacture of Industrial Hydraulic systems	
2.	They should have supplied a power pack having tank capacity of minimum 3000 L	
3.	They should have supplied multiple pumping unit with a total flow of minimum 300 LPM at a pressure of 100 bar or more	
4.	The BIDDER / VENDOR shall have supplied at least one number of such systems within the last five years. Indicate the number of Hydraulic systems installed in India & Other Countries.	
5.	Reference List of Customers and Performance Certificate from CUSTOMERS (minimum ONE Customer) indicating type and purpose of system, date of commissioning and performance in the last one year along with full contact details of CONTACT PERSON.	
6.	BHEL reserves the right to verify the information provided by vendor. In case the information provided by vendor is found to be false/ incorrect, the offer shall be rejected.	
7.	DELIVERY - The bidder shall quote the best possible delivery. However the delivery shall not exceed 3 months. The period will attract a penalty which is explained in the commercial terms of the enquiry. The delivery period shall be reckoned from date of purchase order to despatch from the vendor works.	
8.	Details of Design Set-Up and Technology Back-Up for the Equipments	
9.	Comprehensive Details on Performance Testing - of the Equipment quoted, to be ensured in presence of BHEL Executives, prior to dispatch from Supplier's Works	

10.	Details of Quality System followed (Kindly furnish the salient aspects of the QA system followed)	
11.	Details on SERVICE-after-SALES Set-Up in India including the addresses of Agents/Service Centre in India.	
12.	Any Additional Data to supplement the manufacturing capability of the BIDDER	
13.	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.	
14.	The Offer shall contain a comparative statement of Technical Specifications given by BHEL and the Offer Details submitted by the Bidder, against each clause. 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.	
15.	The BIDDER / VENDOR shall assure a continuous support for SPARES and SERVICE for FIVE Years, from the date of commissioning of the equipment at BHEL Works.	
16.	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	
17.	The Commercial Offer (given with the Technical Offer) shall contain the Scope of Supply and the Un-Priced Part of the Price-Bid, for confirmation of Scope of Supply.	

B. Scope of Supply and technical requirements

Brief description of scope of supply

1. Supply of Hydraulic power pack
2. Supply of pipe lines between power pack & valve stand
3. Supply of valves
4. Erection of power pack
5. Erection of pipelines

Detailed scope of supply

Sl.No.	Description
1.	Scope includes supply, erection & commissioning of Hydraulic Circuits as per the Drawings attached, should be of manifold /stacking valve construction with minimum number of pipes and pipe joints with easy accessibility of components for maintenance.
2.	Type of Oil – Servo system 68 or Indian equivalent
3.	Before manufacturing, the design of Power pack should be approved by BHEL
4.	The Tank, Pumps and related Accessories should be located in cellar.
5.	Pipe lines from power pack to valve stand (valve stand is BHEL scope)and return lines to tank should be laid properly with suitable clamps with minimum joints. Lay out should be acceptable by BHEL
6.	All Pumps, Valves, Accessories, etc. in the system should be of Rexroth / Vickers or equivalent reputed make acceptable to BHEL (Details to be submitted). Capacities and sizes of components should be as per Circuit Drawings.
7.	Instead of A4VSO140DP model pump supplier shall quote for A4VSO180DP model pump
8.	Filter elements in Duplex / Standby filter units should be of reusable type. The filter unit should be of Rexroth / Vickers / Hydac / Parker or any other equivalent reputed make acceptable to BHEL (Details to be submitted)
9.	Motors should be of Siemens , ABB, Bharat Bijlee or equivalent reputed make acceptable to BHEL (Details to be submitted)
10.	The flexible hoses used in the system should be of Gates, Monuli or equivalent make acceptable to BHEL (Details to be submitted)
11.	Heat exchanger for oil cooling system should be of reputed make acceptable to BHEL (Details to be submitted).
12.	Heating arrangement shown in the drawing may be deleted as the same is not required for our climatic condition
13.	Instead of SS tank shown in the drawing, MS tank with epoxy coating is to be quoted
14.	The Pressure gauges used in the system should be Glycerine filled ones and to be provided as per the Drawing.
15.	Pressure line filters (4 Nos) are to be included in the power pack at the delivery of main pumps to avoid problem in the proportional and logic valves
16.	Wherever elements are combined in to a block the same is to be explicitly mentioned in the offer
17.	Control voltage for solenoids of valves should be of 24 Volt DC with manual overrides and LED light indication

18.	Power and control supply for motor operation is in scope of BHEL. Control supply for solenoid valve operation which requires 24 V DC is in scope of BHEL.																
19.	Power pack should be equipped with Prewired junction boxes																
20.	All components in the hydraulic power pack should be provided with identification numbers as per the circuit and should be pasted with metallic identification number plates																
21.	Suitable leakage oil collection metallic tray is to be provided wherever required																
22.	All pipe lines should be painted with standard colour coding accepted internationally for hydraulic system																
23.	All pipe / hose end fittings should be of standard weld nipple with suitable 'O'- rings. No ferrule joint is to be used. All threaded connection should be of BSP																
24.	The Power pack should be designed taking into account the energy efficiency																
25.	All pipelines & hoses are in the scope of vendor																
26.	All oil pipe lines should be of seamless steel and should undergo pickling process and components and pipe lines should be of dust free.																
27.	Bill of material shall be prepared and enclosed along with the offer.																
28.	Approximately 50% (2000L) of total oil is required for initial flushing .BHEL will arrange for this additional quantity also. However vendor shall replace filter elements after the flushing is completed (Flushing and filter elements are in the scope of vendor).																
29.	During commissioning First fill oil (SS68) will be supplied by SSTP/BHEL																
30.	Commissioning spares are in the scope of vendor.																
31.	Separate rate shall be quoted for supply quantity & erection portion																
32.	Pipeline between power pack & valve stand shall be supplied and erected. Sizes of pipeline are mentioned in drawing no. 2-7-1125-40-08042. Distance between power pack & valve stand is 80m.																
33.	List of drawings is enclosed (04 Nos)																
	<table border="1"> <thead> <tr> <th>S.No</th> <th>BHEL Drawing No</th> <th>SMS Reference Drawing No</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>2-7-1125-40-08039</td> <td>5206924-04.000_01</td> </tr> <tr> <td>2.</td> <td>2-7-1125-40-08040</td> <td>5206924-04.000_02</td> </tr> <tr> <td>3.</td> <td>2-7-1125-40-08041</td> <td>5206924-04.000_03</td> </tr> <tr> <td>4.</td> <td>2-7-1125-40-08042</td> <td>5206924-04.000_04</td> </tr> </tbody> </table>		S.No	BHEL Drawing No	SMS Reference Drawing No	1.	2-7-1125-40-08039	5206924-04.000_01	2.	2-7-1125-40-08040	5206924-04.000_02	3.	2-7-1125-40-08041	5206924-04.000_03	4.	2-7-1125-40-08042	5206924-04.000_04
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34.	Following items of Rexroth make or equivalent shall also be supplied by supplier as loose item			
	Item	Description	Specification	Qty (nos)
	1.	Cartridge valve	LC40DB40E7X/V-104, LF A40 DBE -7X/V,	1 each
	2.	Proportional pr. relief Valve	DBETE-6X/315G24 K31A1V 4 -20 mA	1
	3.	Proportional DC valve	4WRKE10E100...4 -20 mA	1
4.	Proportional DC valve	4WRKE32E 600... 4 -20 mA	1	