



ISO 9001:2000
& 14001:2004
NAVARATNA
COMPANY

CENTRAL FOUNDRY FORGE PLANT, BHEL
RANIPUR, HARIDWAR, UTTARAKHAND (INDIA) – 249403
Phone No. +91-1334-281277/284548, FAX No. 225892
e-mail : manoj26@bhelhwr.co.in
, ranjank@bhelhwr.co.in, svn@bhelhwr.co.in

Sub: Open Tender Enquiry No: 3020 P/901/1/0335P1 due on 19.10.2011, at 2.00 PM

We are pleased to invite offer as per enclosed technical specification, drawings (if any) with terms and conditions in sealed covers for the under mentioned items.

Sl No	Tender No	Description of Material	Qty MR	Date & Time of Opening
01	3020P/901/1/0335P1	Gouging Rectifiers 1500 AMPS	07Nos	19.10.2011, at 2.00 PM

Kindly read terms and conditions carefully and submit offer in time. Offer not in accordance with the instructions is liable to be disqualified and or ignored.

Please visit www.bhel.com or www.bhelhwr.co.in for more details and tender documents.

Vendor who are not registered in CFFP/BHEL also down load Supplier Registration Form from above mentioned website and submit the same dully filled along with offer.

Thanking You,

Yours faithfully,
For & On behalf of CFFP BHEL Hardwar

(Ranjan Kumar)
DGM (Purchase)

Note: Corrigendum if any shall not be published, kindly refer web for any changes.



निविदा सूचना
TENDER ENQUIRY

AA-17001

Phone : (01334) 285356, 285326

Telefax : (01334) 225892 / 225178)

UPTT NO. HR-0041496 Dt. 01-04-1994
C S T NO. HR-5018287 Dt. 16-03-1995

भारत हैवी इलैक्ट्रिकल्स लिमिटेड
Bharat Heavy Electricals Ltd
सेन्ट्रल फाउन्ड्री फोर्ज प्लांट- हरिद्वार-249 403 (भारत)
Central Foundry Forge Plant, Haridwar-249 403 INDIA

निविदा सूचना सं. ENQUIRY NO.*

3020 P/ 901/1/0335P1

दिनांक Date

20-09-2011

कृपया निम्नलिखित के लिए निविदा दें। PLEASE QUOTE FOR THE FOLLOWING :

M/S. ::

DUEDATE

19-10-2011

::

:

Vendor Code

09285

INDIA

SL	MATERIAL CODE ITEM DESCRIPTION	QUANTITY	UNIT	LOTNO	LOT DELIVERY QTY SCHEDULE
----	-----------------------------------	----------	------	-------	------------------------------

1	FF4210310018 GOUGING RECTIFIERS 1500 AMPS AT 100% DUTY CYCLE SPEC: FT/SP/01-REV01 REV: ??	7	NO	1	7 30/12/11
---	--	---	----	---	------------

**** IMPORTANT:** This enquiry is 2 part tender. Techno-Commercial bid (Part-1) & Price Bids (Part-2) should be submitted in separate envelopes. These two envelopes should be submitted in a common sealed envelope. Techno-Commercial Bid shall contain detailed Technical Specification, Drawings Technical documents, Catalogues, taxes & duties, payment terms, delivery period, Validity of offer, Replica of Price Bid (Copy of price bid without price part) etc. The confirmation to the special terms & conditions must be submitted alongwith Techno-Commercial bid.

Standard Instructions:

TEST CERTIFICATE REQUIRED.
GUARANTEE CERTIFICATE REQUIRED.
BASIC RATES, TAXES DUTIES SEPERATELY
CENVATABL DUPLICATE COPY OF INVOICE.
ERECTION/COMM REQ AT SITE.
OPERATION/MAINT MANUAL ALONGWITH EQPT.

Special Instructions:

1. FINAL INSPECTION WILL BE CARRIED OUT AT CFFP.
2. EARLY DELIVERY ACCEPTABLE .
3. ATTACHMENT-
 - ANNEXURE-1 OF COMMERCIAL TERMS AND CONDITION.
 - PROFARMA FOR BANK GUARANTEE.
 - AUTHORISATION LETTER FOR E- PAYMENT.
 - CONSORTIUM BANK LIST.
 - TECHNICAL SPECIFICATION NO. FT/SP/01-REV01 FOR GOUGING RECTIFIRE.
 - ANNEXURE- A OF GENERAL TERMS AND CONDITIONS.

General Instructions:

1. Please submit authorization letter (format enclosed) for facilitating e-payment/electronic transfer of funds
2. 100% payment within 30 days after receipt & acceptance of material at CFFP BHEL, Hardwar through e-payment.

Page No 1

★ महत्वपूर्ण : कृपया कोटेशन देने से पूर्व पीछे दिए गये अनुदेशों को ध्यानपूर्वक पढ़िये।

IMPORTANT : PLEASE READ CAREFULLY THE INSTRUCTIONS GIVEN ON REVERSE BEFORE QUOTING



AA-17001

निविदा सूचना
TENDER ENQUIRY

भारत हैवी इलैक्ट्रिकल्स लिमिटेड
Bharat Heavy Electricals Ltd
सेन्ट्रल फाउन्ड्री फोर्ज प्लांट- हरिद्वार-249 403 (भारत)
Central Foundry Forge Plant, Haridwar-249 403 INDIA

Phone : (01334) 285356, 285326

Telefax : (01334 225892 / 225178)

UPTT NO. HR-0041496 Dt. 01-04-1994
C S T NO. HR-5018287 Dt. 16-03-1995

निविदा सूचना सं. ENQUIRY NO.*	3020 P/ 901/1/0335P1	दिनांक Date	20-09-2011
-------------------------------	----------------------	-------------	------------

कृपया निम्नलिखित के लिए निविदा दें। PLEASE QUOTE FOR THE FOLLOWING :

MATERIAL CODE ITEM DESCRIPTION	QUANTITY	UNIT	LOTNO
-----------------------------------	----------	------	-------

3. CFFP/BHEL RESERVES THE RIGHT TO PRE-INSPECT THE MATERIAL AT VENDOR'S WORKS / GODOWN/ PREMISES BEFORE DESPATCH.
4. ORIGINAL MANUFACTURER'S TEST CERTIFICATE IS REQUIRED ALONG WITH DESPATCH DOCUMENTS. IN CASE SUPPLIES ARE FROM TRADERS, IT SHALL BE THE RESPONSIBILITY OF THE TRADER TO PROVIDE ORIGINAL MANUFACTURER'S TEST CERTIFICATE WITH LINKAGE TO TRADER'S INVOICE STATING BATCH NO.
5. CFFP/BHEL Reserves the right to procure from more than one vendor.
6. Please quote prices in figures & words both. In case the prices quoted in words and figures are different, the values indicated in words will be considered for evaluation & establishing L1 status.


MANOJ KUMAR YADAVA
ENGR

★ महत्वपूर्ण : कृपया कोटेशन देने से पूर्व पीछे दिए गये अनुदेशों को ध्यानपूर्वक पढ़िये।

IMPORTANT : PLEASE READ CAREFULLY THE INSTRUCTIONS GIVEN ON REVERSE BEFORE QUOTING



BHARAT HEAVY ELECTRICALS LIMITED
CENTRAL FOUNDRY FORGE PLANT

SPECIFICATION FOR GOUGING RECTIFIERS (1500 amperes) -FT/SP/01- Rev 01

1.0 DESCRIPTION

This specification governs the requirement of heavy duty Gouging Rectifier (1500 Amperes)

2.0 OBJECTIVE

The Gouging rectifiers shall be used for air arc gouging (with copper coated gouging electrode of $\phi 6$ mm to $\phi 19$ mm) on steel castings by Manual Air Arc Gouging Process at 100% manual duty cycle and current range of 200 to 1500 amperes.

3.0 SCOPE

The scope of supply includes design, manufacture, supply, erection and commissioning of the equipment (including performance proving) at our works. The technical and general requirements of the equipment are given below.

The supply shall also include recommended spares for 2 years smooth & trouble free working indicating individual identification no. & price, including items like Power Diodes, contactors, MCB's, diode bridge assembly fuses and transformers.

The supplier shall give guarantee for trouble-free operation of the equipment for a period of two years from the date of commissioning of the unit.

4.0 TECHNICAL SPECIFICATION OF GOUGING RECTIFIER

3.1	Gouging rectifier shall be diode bridge controlled, with 6 diodes	
3.2	Unit	Single unit and having single operator mode
3.3	Out put current	DC, 200 to 1500 amperes, Stepiess
3.4	Out put current rating	1500 amperes at 100% manual duty cycle
3.5	Output current variation	5% of set current
3.6	Open circuit voltage	80 Volt
3.7	Class of Insulation	Class "F"
3.8	Cooling	Forced air cooling
3.9	Input supply	415 Volt \pm 10 %, Three phase AC, 50 Hz

3.10	Working Condition	<p>A) Atmospheric Temperature : 3 - 50 °C</p> <p>B) Relative Humidity : 95% RH max.</p> <p>C) Condition of heavy fumes, dust laden with iron particles associated with steel foundry.</p>
------	-------------------	---

5.0 TECHNICAL AND GENERAL REQUIREMENTS

- 5.1 The equipment should be of Constant Current characteristics.
- 5.2 The equipment should have Hot Start and anti-sticking facilities for ease of arc starting / restarting and to prevent electrode freezing.
- 5.3 Coil winding material shall be of copper.
- 5.4 The equipment should have excellent arc stability throughout the entire range (200 - 1500 amperes).
- 5.5 The equipment should be fitted with energy saving device with bypass switch.
- 5.6 The transformer of rectifier unit should be designed for heavy duty gouging service with upto $\phi 19$ mm copper coated gouging electrodes and should have extra durability. The equipment should be fitted with protection against single phasing, under/over input voltage and short circuit and thermal overload protection.
- 5.7 The equipment should be equipped with suitable incoming line reactor to reduce harmonics in incoming supply.
- 5.8 Equipment should be robust and compact in construction for use at rough shop floor condition with proper ventilation in between components and winding layers of individual coils for proper cooling during continuous duty.
- 5.9 The front panel of the Rectifier should have
 - a) Indicating lamps for 3 phase supply, single phasing, under/over input voltage & short circuit and thermal overload protection etc for ease of trouble shooting.
 - b) Rectifier ON / OFF Switch
 - c) Digital voltmeter and Ammeter with Selector switch to read whenever needed.
 - d) Welding Current Setting Knob.
- 5.10 The equipment should have easy accessibility to major components from maintenance view point.
- 5.11 All contactors and isolating switches should be of higher rating (at least one step above) and should be of Siemens / L&T make.
- 5.12 The equipment should have provision of lifting/ handling and moving at shop floor.
- 5.13 Rectifier should be workable under conditions of heavy fumes & dust laden with iron particles associated with steel Foundry.

6

5.14 Supplier should be able to provide prompt after sales service during and after expiry of guaranty period and the response time should not be more than 48 hrs.

6.0 PACKING

The rectifier should be supplied in suitable packing to avoid any damage during handling, transit and storage.

7.0 DETAILS TO BE INCLUDED IN THE OFFER

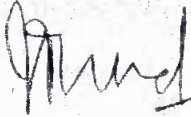
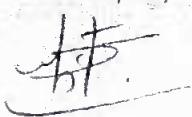
Following details are to be included while submitting the offer

- a) Clause wise confirmation against this specification.
- b) Technical literature/photographs/ list of essential spares etc at the first instance.
- c) List of customers to whom similar Gouging Rectifiers have been supplied & working satisfactorily.
- d) List of essential spares along with their price (to be quoted separately) for two year smooth and trouble-free service.
- e) Offer for annual maintenance contract (AMC) with spares for three years after the expiry of two years guaranty period. The offer to be quoted separately.

8.0 DOCUMENTS TO BE PROVIDED BY THE SUPPLIER



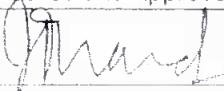
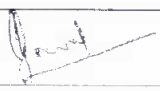
Five sets of documents as given below shall accompany the equipment. Alongwith hardcopy, the information shall also be provided in form of a compact disc (CD) contain documents in autocad format (for drawings) or Microsoft office formats.

- (a) Operation and Maintenance Manual including do's and don'ts and fault diagnostics.
- (b) Assembly drawings, Electric and electronic circuit diagrams, wiring diagrams and General diagram with part placement alongwith make, rating and specification.
- (c) Test and Guarantee certificate of the equipment as a whole and Test certificate of all measuring instruments.
- (d) List of spares, alongwith individual prices, identification number and also details of all bought out items with their specification and make.



9.0 INSPECTION AND REPLACEMENT

- 9.1 The equipment shall be inspected at CFFP, BHEL which will be binding on the supplier. If the equipment received at CFFP is not found in accordance with the requirements, it shall be rejected and the supplier will have to replace it free of cost at the earliest.
- 9.2 BHEL reserves the right to inspect the equipment at site before despatch. The supplier shall give prior intimation at least fifteen days in advance. The supplier shall submit a copy of test certificate in advance of the equipment offered for inspection. However, inspection at CFFP shall be final. The supplier shall offer BHEL representative all reasonable test facilities without charge to satisfy the latter that the equipment is being furnished in accordance with the specification. The final dispatch shall be made after clearance from BHEL.

Prepared by	Checked and Approved by		
			
T Dave Manager (FT)	SK Gupta Manager (M&S)	Jagdish Prasad AGM (SF)	VK Agarwal AGM (QM)

