

Tender No. F/F219/22/0736/K1

**BHARAT HEAVY ELECTRICALS LIMITED**  
**HEEP HARIDWAR INDIA-PIN 249403**  
**FAX NO: 0091 1334 226462/223948**  
**PHONE NO: 0091 1334 284144**

**Tender No.: F/F219/22/0736/K1**

**Opening Date: 13.08.2022**

**Sub: BHEL-HEEP/OPEN-TENDER (13% Mn. Non-Magnetic Steel Flat Bars)**

The Heavy Electricals Equipment Plant (HEEP) located in Haridwar, India is one of the major manufacturing plants of Bharat Heavy Electricals Ltd. The core business of HEEP includes design and manufacture of large steam turbines, turbo generators and so on.

Online offers are invited through e-procurement portal <https://eprocurebhel.co.in/nicgep/app> from suppliers for the supply of the following items: -

<b>Sl. No.</b>	<b>Item Description</b>	<b>Material Code</b>	<b>Size (mm) W×T</b>	<b>Qty. (Kg)</b>
<b>1</b>	13% Mn. Non-Magnetic Steel Flat Bars Hot Rolled <b>Specification:</b> HW10578 Rev: 02 <b>Grade:</b> ST-NON-MAG	HW1050378016	70×10	1200

The Techno-Commercial offers received will be evaluated by BHEL & successful short-listed parties will be asked to supply the item as per tender document. Vendors shall confirm that there is no deviation with respect to BHEL Specifications. However, deviations, if any are to be listed as a separate attachment. The offers that do not meet the substantial requirements of our specifications are liable to be ignored.

The tender documents can be downloaded from <https://eprocurebhel.co.in/nicgep/app>, <https://hwr.bhel.com> and [www.bhel.com](http://www.bhel.com) portals. **Only those vendors who fulfill the Pre-Qualifying Requirements (as per Annexure-II) will be considered for further technical evaluation.**

**The last date for downloading tender documents shall be 12.08.2022 & opening of tender shall be 13.08.2022.** Tenders will be received up to 01.45 P.M. on **12.08.2022** and opened on **13.08.2022** at 2.00 P.M. on <https://eprocurebhel.co.in/nicgep/app> . **Please note that tender received after 01.45 PM on 12.08.2022 will not be opened.** BHEL will not be responsible for any type of delay.

**The total quantity may undergo change at the time of ordering.**

The details of each item with required delivery are given in **Annexure-I (Details of Items)**

Please submit your Techno-Commercial offer only for the above requirement subject to our terms and conditions.

**KINDLY READ “INSTRUCTIONS TO BIDDERS.” QUOTATION NOT IN ACCORDANCE WITH THE INSTRUCTIONS ARE LIABLE TO BE DISQUALIFIED AND IGNORED.**

## **INSTRUCTIONS TO BIDDERS FOR OPEN TENDER**

**Vendors must fill up Annexure– II in confirmation to mandatory Pre-Qualification Requirements and quality requirements.**

### **ESSENTIAL INSTRUCTIONS**

1. **BHEL team may visit the vendor (s) works for verification of capability and capacity claimed in tender documents/offer (s).**
2. The tenders shall be submitted in two parts
  - i. Part I - Techno -Commercial Bid & Pre-Qualification Requirements
  - ii. Part II - Price Bid
3. **The Quotation should be from the Principal / Original Manufacturer, failing which the quotation is likely to be ignored. In Case the quotation is submitted through agent, the quotation must accompany original authorization letter and following to be followed-**
  - a. Either the agent could bid on behalf of the manufacturer/ supplier or the manufacturer/ supplier could bid directly but not both.
  - b. In case bids are received from both the manufacturer/ supplier and the agent, bid received from the agent shall be ignored.
  - c. The agent shall not be allowed to represent more than one manufacturer/ supplier in the same tender.

The authorization letter from the manufacturer, clearly indicating contact details like Name, E-mail & address of manufacturer and relationship with agent and its validity to be submitted with bid. The authorization letter should be tender specific. In case order is to be placed and executed by the agent, the following aspects are to be ensured-

- a. The manufacturer should meet the PQR requirements as defined in the tender.
  - b. In order to establish capability of agent to execute the order, the agent should have annual turnover of at least equal to the estimated value of the goods required under the subject tender during one Financial Year and Net worth of the bidder (agent) should be positive.
  - c. Manufacturer and bidder should jointly confirm Guarantee for the Quality of product and timely delivery as stipulated in NIT.
4. Documents submitted with the offer/bid by the bidder shall be signed and stamped in each page by authorized representative of the bidder.
  5. Any corrections / amendments shall be properly & fully authenticated with signature. No overwriting is acceptable.
  6. Part-I containing Techno-Commercial bid & Pre-Qualification Requirement will be opened on the date and time specified in the tender notice in the presence of those vendors who wish to attend.
  7. Part-II (Price Bids) along with supplementary price bids, if necessary, will be opened at a later date of only those bidders whose techno-commercial bid has been found acceptable.
  8. Suitability of delivery shall be the important criteria for evaluation of techno commercial bid.
  9. **Evaluation of Bid: - The bid shall be evaluated**
    - a. **Cost to BHEL basis. (Basic Cost + Inspection + Transportation + Duty + Taxes)**
    - b. **The loading, if any, on account of LD penalty, payment terms or any other cost determined at later stage, which shall be communicated to the vendor.**
  10. Tenders when finalized shall be in the name of the bidder only and change of name during tender evaluation (without certificate from registrar of company) and after submission of the tender is liable to make the offer ineligible for participation.
  11. All test certificates / Guarantee certificates to be submitted in TRIPLICATE along with dispatch documents.
  12. BHEL reserves the right to open the price bid (part-II) along with the opening of techno-commercial offer at its option and in that case vendor will be informed accordingly.
  13. Total weight--/Gross/Net in Kg & also package size essentially should be indicated if not exact then approximate.
  14. BHEL will evaluate the technical bids against essential criteria/requirements. BHEL may seek clarifications, if required, from the qualified bidders only. These clarifications will be communicated to the eligible vendors. **The offers of those bidders, who are unable to respond in specified time frame, are likely to be ignored.**

**Note: Please visit our site <https://hwr.bhel.com> for General Instructions and Standard Terms & Conditions (GISTC) for Tender Enquiries. All the bidders / vendors must ensure compliance of latest GISTC.**

**GISTC are available in following link**

**<https://hwr.bhel.com/bhelweb/Gistc.jsp>**

**IN CASE YOU ARE NOT MAKING AN OFFER AGAINST THIS ENQUIRY, THEN PLEASE ARRANGE TO SEND A LETTER OF REGRET.**

Tender No. F/F219/22/0736/K1

For clarification regarding tender, please contact following persons:

1) **P K Bansal / Sr. Engineer (PPX- F)**  
**4<sup>th</sup> Floor Main ADM Building**  
**BHEL (HEEP), Haridwar**  
**Phone No.- 01334284144**  
**Mob No- 7533968681**  
**Email- [pankajkumar.bansal@bhel.in](mailto:pankajkumar.bansal@bhel.in)**

2) **Pankaj Yadav / Manager (PPX- F)**  
**4<sup>th</sup> Floor Main ADM Building**  
**BHEL (HEEP), Haridwar**  
**Phone No.- 01334281032**  
**Mob No- 9442275514**  
**Email- [pankaj.yadav@bhel.in](mailto:pankaj.yadav@bhel.in)**

**DETAILS OF COMPOSITION OF PART-I (TECHNO-COMMERCIAL BID) & PART-II (PRICE BID)**

**PART-I (TECHNO-COMMERCIAL BID)** shall comprise of following documents:

- a. Confirmation to Pre-Qualification Requirement and Quality Requirement as per Annexure-II.
- b. Complete technical offer as per specification, drawings, technical requirement along with un-priced bid.
- c. Delivery schedule.
- d. Validity of offer for 90 days to be indicated.
- e. **Deviation with reference to specification/drawing, if any, should be clearly indicated on a separate sheet.**
- f. Details of activity outsourced.
- g. Endorsed Quality Plan (Annexure-IV).

**PART –II (Price Bid)**

- a. Price bid with prices to be submitted as part-II of the tender.
- b. Prices should remain firm till the execution of the order.
- c. **In case of foreign vendors, Bidders need to quote their prices on CFR any sea port in Mumbai in Euro/USD/JPY currency only.** The name of the currency should be clearly indicated in your bids.

Offers received other than CFR basis may result in non-consideration of such bids. However, if BHEL agrees to accept the CFR / FOB condition, to arrive at landed cost at our plant/site, loading shall be done as per latest GISTC.

**In case of Indigenous vendor, prices may be quoted on FOR- Destination- Store-HEEP-BHEL basis. In case BHEL accepts the EX-Works prices such offers will be loaded by 1.5% of EX-Works value towards freight or with actual freight charges as per BHEL freight rate contract whichever is higher.**

Insurance – Marine in case of foreign vendor & inland in case of Indigenous vendor shall be taken care by BHEL.

- d. **Prices are to be written in both Figures & Words. In case of any difference between the two, the figure written in words shall be considered for evaluation. No over writing in this is acceptable.**
- e. Liquidated Damages (LD) for Late Deliveries shall be applicable @0.5% per week or part thereof on the value of respective delayed supplies subject to a maximum of 10% of the value of respective delayed supplies.

**ANNEXURE-I****Item Details and Delivery Schedule**

<b>Sl. No.</b>	<b>Item Description</b>	<b>Mat. Code &amp;</b>	<b>Size (mm) W×T</b>	<b>Qty. (Kg)</b>	<b>Delivery</b>
<b>1</b>	13% Mn. Non-Magnetic Steel Flat Bars Hot Rolled <b>Specification:</b> HW10578 Rev: 02 <b>Grade:</b> ST-NON-MAG	HW1050378016	70×10	1200	15.12.2022

**Remarks-**

1. Quantity tolerance  $\pm 10\%$  is acceptable.
2. Risk purchase clause shall be applicable. If you do not confirm this in your offer, then it shall be presumed to be acceptable and no further confirmation will be taken after opening of techno-commercial bid part- 1.
3. After placement of order vendor should submit their invoices against goods and services immediately after supply of goods & services but not later than 30 days from the invoice date. In case of any delay, consequential losses like loss of input credit and non-availability of concessional forms etc., shall be to the vendor account.
4. Delivery mentioned above is indicative, bidders to quote their best possible delivery schedule.
5. Liquidated Damages (LD) for Late Deliveries shall be applicable @0.5% per week or part thereof on the value of respective delayed supplies subject to a maximum of 10% of the value of respective delayed supplies.
6. NOTE: THE QUANTITY INDICATED ABOVE CAN BE INCREASED/ DECREASED.

**ANNEXURE-II****Pre- Qualification Requirements**

- **Technical Requirements-**  
**Pre-Qualification Requirements for NON MAGNETIC STEEL FLAT BARS HOT ROLLED (TECHNICALL SPECIFICATION HW10578; MATERIAL CODE HW1050378016)**

These are used for manufacturing of Press Fingers and terminal box components of large Turbo generators.

- **Mandatory Requirements:**

Sl. No.	Technical Requirement	Vendor's confirmation (Y/N)														
01.	<p>Vendor should have experience of supplying at least 1000 kg of hot Rolled flat bars of non-magnetic steel grade X120Mn12, in last seven years (from date of issuance of enquiry).</p> <p><b>1.1.</b> In support of above, vendor to furnish their experience list along-with PO copies as per the following format to BHEL:</p> <p style="text-align: center;">Table- 1</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Sl. No.</th> <th>PO No.</th> <th>Weight</th> <th>Size / Dimension</th> <th>Material Grade</th> <th>Name &amp; address of customer</th> <th>Date of Supply</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table> <p><b>1.2.</b> Vendor to furnish unpriced copy of at-least one no. PO from the above list along-with its Test Certificates.</p> <p><b>1.3.</b> Vendor to furnish customer acceptance letter or material receipt from customer for the P.O. furnished as per Cl. 1.2. Third Party approved test certificates are also acceptable.</p>	Sl. No.	PO No.	Weight	Size / Dimension	Material Grade	Name & address of customer	Date of Supply								
Sl. No.	PO No.	Weight	Size / Dimension	Material Grade	Name & address of customer	Date of Supply										
02.	<p>Vendor to confirm that they have in-house manufacturing facilities for manufacturing flat steel bars as per enquiry specification and enquiry dimension. Details of in house manufacturing facilities to be submitted.</p> <p>In case any of the manufacturing process is outsourced, details of operation outsourced with details of sub supplier and past experience with the sub supplier to be submitted.</p>															
03	<p>Vendor should confirm that they have in-house testing facilities as per the requirement of enquiry specification. Outsourcing of any test at Government / National / International lab accreditation agency is also acceptable. Vendor to note and agree.</p>															
<p><b>Note-</b></p> <p>1. <i>BHEL reserves the right to verify information submitted by vendor. In case the information is found to be false / incorrect, the offer shall be rejected.</i></p>																

- **Quality Requirements-**

Sl. No.	Quality Requirement	Vendor's confirmation (Y/N)
1.0	<p><b>a. For Indigenous vendor</b></p> <p>a. Vendor to accept and endorse BHEL QP (NO. C03 Rev: 01) QP enclosed (Annexure-IV).</p> <p>b. Inspection by BHEL nominated inspection agency INTERTEK as per BHEL approved Quality Plan.</p> <p><b>For Foreign vendor</b></p> <p>Testing and certification as per ordering documents and specification.</p>	

**Signature with stamp**

**Name:**


**Name of Firm:**

**Designation:**

**Date:**

**ANNEXURE-III**

**(Specification)**

दिनांक एवं हस्ताक्षर SIGN & DATE		<h2 style="margin:0;">उत्पाद क्रय विनिर्देश</h2> <h3 style="margin:0;">PRODUCT PURCHASE SPECIFICATION</h3>	<b>HW 10578</b> पृष्ठ का <b>Page 1 of 7</b>
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SUPERSEDES INVENTORY NO.  पुरानी सूची पुराना नं.	<h3 style="margin:0;">Non-magnetic Steel Flat Bars.</h3> <h3 style="margin:0;">Steel Grade X120Mn12</h3>	BASED ON: TLV 9381-01
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**1. GENERAL:** This specification governs the quality of hot rolled flat bars of non-magnetic steel. Steel grade X120Mn12, Material no-1.3401.

**2. APPLICATION:** For the manufacturing of Press Fingers and terminal box components of large Turbo-generators.

**3. CONDITION OF DELIVERY:** Hot rolled bars, quenched and straighted.

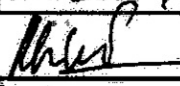
**4. COMPLIANCE WITH NATIONAL STANDARDS:** There is no Indian standards covering this material.

**5. DIMENSIONS & TOLERANCES:**

**5.1 SIZES:** Material shall be supplied to the dimensions specified in the order.

**5.2 TOLERANCES:** The tolerances would be generally as given below unless agreed otherwise between BHEL and the supplier.

**5.2.1 Length**  
Tolerances on lengths for deliveries of hot rolled flat steel are as follows:

दिनांक एवं हस्ताक्षर SIGN & DATE  दिनांक एवं हस्ताक्षर SIGN & DATE	दिनांक एवं हस्ताक्षर SIGN & DATE  दिनांक एवं हस्ताक्षर SIGN & DATE	दिनांक एवं हस्ताक्षर SIGN & DATE  दिनांक एवं हस्ताक्षर SIGN & DATE	दिनांक एवं हस्ताक्षर SIGN & DATE  दिनांक एवं हस्ताक्षर SIGN & DATE	दिनांक एवं हस्ताक्षर SIGN & DATE  दिनांक एवं हस्ताक्षर SIGN & DATE	दिनांक एवं हस्ताक्षर SIGN & DATE  दिनांक एवं हस्ताक्षर SIGN & DATE
अनुवादक TRANSLATED BY					
निर्माणकर्ता WORKED BY	Amit Mittal				
जांचकर्ता CHECKED BY	Rakesh Kr.				
पर्यवेक्षणकर्ता SUPERVISED BY	Rakesh Kr.				
स्वीकृति APPROVED :					दिनांक DATE: 15-12-80
निर्माण PREPARED: EME	जारी ISSUED: TSX				

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स्वत्वाधिकार एवं गोपनीय  
 इस दस्तावेज में दी गई सूचना भारत भारी इलेक्ट्रिकल्स की संपत्ति है। इसका प्रयोग एवं आरक्षण अन्य को किसी भी तरह से नुकसान, जो कि कंपनी के हित में पर्याप्त है, हो सकता है।

SUPERSEDES INVENTORY NO.  
 धारणी सूची संख्या को  
 अधिगति करता है

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**स्वत्वाधिकार एवं गोपनीय**  
 इस दस्तावेज में दी गई सूचना भारत भारती इलेक्ट्रिकल्स की सम्पत्ति है इसका प्रयोग एवं आसपास पर से किसी भी तरह प्रयोग, को बिना कम्पनी के लिखित अनुमति के न किया जाए।

हस्ताक्षर एवं दिनांक  
 SIGN & DATE  
**20/11/08**

धारणी सूची संख्या  
 INVENTORY NO.  
**P-2287**

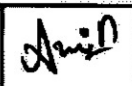
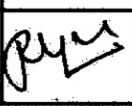
Description	Length, mm		Length details to be given when ordering.
	Range	Permissible variation,	
<b>Manufacturing length.</b>	3000 to 12000	Anywhere Between 3000 to 12,000	None
<b>Fixed length .</b>	Upto 12000	± 100	Required fixed length in mm
<b>Exact length.</b>	Upto 1200	Under ±100 To ±5, the following being preferred. ±50, ±25, ± 10, ±5.	Required exact length & required permissible variation in mm.


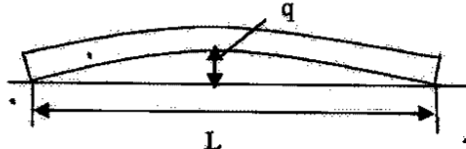
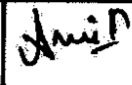
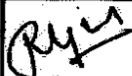
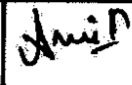
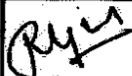
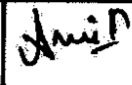
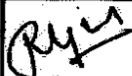
**5.2.2: Width and Thickness.**  
 The width and thickness in which flat steel is generally to be supplied with the permissible variation on these dimensions are contained in the tables given below:


Thickness mm	5	6	6.5	7	8	9	10	11	12	13	14	15	16	17	18	20	22	25	30	40	50	60
Tolerance mm	± 0.5												± 1.0				± 1.5					



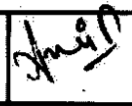

Width mm	10	11	12	13	14	15	16	17	18	19	20	22	25	26	28	30	32	35
Tolerance mm	± 0.75																	


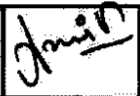
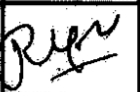
Width mm	38	40	45	50	55	60	65	70	75	80	90	100	110	120	130	140	150
Tolerance mm	± 0.6						± 0.8			± 2.0		± 2.5					


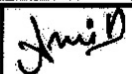
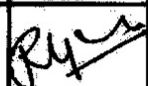
REV.NO:	02		निर्माणकर्ता WORKED BY	Amit		19.6.08
			जांचकर्ता CHECKED BY	Rakesh Kr.		19.6.08

दिनांक एवं हस्ताक्षर SIGN & DATE		<b>उत्पाद क्रय विनिर्देश</b> <b>PRODUCT PURCHASE SPECIFICATION</b>	<b>HW 10578</b> पृष्ठ का <b>Page 3 of 7</b>											
सापेक्षी सूची संख्या एवं SUPERSEDES INVENTORY NO. अधिकारिता करण सं	<p><b>5.2.3: Straightness:-</b>          Flat steel according to this specification shall be straight to within the permissible variations according to following table. Straightness requirements more stringent than the given below shall be agreed to at the time of ordering.</p> <table border="1" data-bbox="527 514 1453 745"> <thead> <tr> <th colspan="2">Cross sectional area mm<sup>2</sup></th> <th rowspan="2">permissible variation 'q' from straightness.</th> </tr> <tr> <th>over</th> <th>to</th> </tr> </thead> <tbody> <tr> <td>-</td> <td>1000</td> <td>0.004 x L</td> </tr> <tr> <td>1000</td> <td>-</td> <td>0.0025 x L</td> </tr> </tbody> </table>			Cross sectional area mm <sup>2</sup>		permissible variation 'q' from straightness.	over	to	-	1000	0.004 x L	1000	-	0.0025 x L
Cross sectional area mm <sup>2</sup>		permissible variation 'q' from straightness.												
over	to													
-	1000	0.004 x L												
1000	-	0.0025 x L												
<b>COPYRIGHT AND CONFIDENTIAL</b> The information on this document is the property of Bharat Heavy Electricals Limited. It must not be used, directly or indirectly in any way, detrimental to the interest of the company.	<div style="text-align: center;">  </div> <p><b>6. MANUFACTURE</b> Steel shall be manufactured by the basic open hearth or basic electric furnace and subsequently subjected to electro-slag refining or vacuum treated.</p>													
<b>स्वत्वधिकार एवं गोपनीय</b> इस दस्तावेज में दी गई सूचना भारत भारती इलेक्ट्रिकल्स लिमिटेड की संपत्ति है इसका प्रयोग एवं प्रसारण के बिना भारत भारती इलेक्ट्रिकल्स लिमिटेड की लिखित अनुमति के बिना नहीं किया जाये।	<p><b>7.FREEDOM FROM DEFECTS :</b> The material shall be free from laminations, traces of shrinkage, porosity and other harmful defects. The surface of bars shall be free from scabs, laps, cracks, hairline cracks and inclusions.</p> <p><b>8. FINISH:</b> The surface of material shall be smooth.          Note:- Dents, roll marks or scratches are permissible if their depth does not exceed half the tolerances specified in clause 5.</p>													
हस्ताक्षर एवं दिनांक SIGN & 27/11/08														
सापेक्षी सूची संख्या INVENTORY NO. <b>0-2287</b>	REV.NO. <b>02</b>		<table border="1"> <tr> <td>निर्माणाकर्ता WORKED BY</td> <td>Amit</td> <td></td> <td>19.6.08</td> </tr> <tr> <td>जांचकर्ता CHECKED BY</td> <td>Rakesh Kr.</td> <td></td> <td>19.6.08</td> </tr> </table>	निर्माणाकर्ता WORKED BY	Amit		19.6.08	जांचकर्ता CHECKED BY	Rakesh Kr.		19.6.08			
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दिनांक एवं स्वतंत्रता दिनांक DATE		<p style="text-align: center;"><b>उत्पाद क्रय विनिर्देश</b></p> <p style="text-align: center;"><b>PRODUCT PURCHASE SPECIFICATION</b></p>	<p style="text-align: right;"><b>HW 10578</b></p> <p style="text-align: right;">पृष्ठ का <b>Page 4 of 7</b></p>																							
SUPERSEDES INVENTORY NO.	<p><b>9. CHEMICAL COMPOSITION:</b> The analysis of the material shall be as follows :</p>																									
COPYRIGHT AND CONFIDENTIAL The information on this document is the property of Bhilai Heavy Electricals Limited It must not be used directly or indirectly in any way detrimental to the interest of the company	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Element</th> <th colspan="2">percent</th> </tr> <tr> <th>Min</th> <th>Max</th> </tr> </thead> <tbody> <tr> <td>Carbon</td> <td>1.1</td> <td>1.3</td> </tr> <tr> <td>Silicon</td> <td>0.3</td> <td>0.50</td> </tr> <tr> <td>Manganese</td> <td>12</td> <td>13</td> </tr> <tr> <td>Phosphorus</td> <td>-</td> <td>0.10</td> </tr> <tr> <td>Sulphur</td> <td>-</td> <td>0.040</td> </tr> <tr> <td>Chromium</td> <td>-</td> <td>1.5</td> </tr> </tbody> </table>			Element	percent		Min	Max	Carbon	1.1	1.3	Silicon	0.3	0.50	Manganese	12	13	Phosphorus	-	0.10	Sulphur	-	0.040	Chromium	-	1.5
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दिनांक एवं विनांक SIGN & 22/11/08	<p>10.2: for quenching (temperature 1000 to 1050°C for guideline) the material as per their length and cross-section is to be heated carefully and thoroughly to the quenching temperature and then quenched in air or water depending upon their thickness.</p>																									
सामग्री सूची संख्या INVENTORY NO. P-22-87	REV.NO. 02		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">निर्माणकर्ता WORKED BY</td> <td style="width: 20%;">Amit</td> <td style="width: 20%; text-align: center;"><i>Amit</i></td> <td style="width: 40%; text-align: right;">19.6.08</td> </tr> <tr> <td>जांचकर्ता CHECKED BY</td> <td>Rakesh Kr.</td> <td style="text-align: center;"><i>Rakesh</i></td> <td style="text-align: right;">19.6.08</td> </tr> </table>	निर्माणकर्ता WORKED BY	Amit	<i>Amit</i>	19.6.08	जांचकर्ता CHECKED BY	Rakesh Kr.	<i>Rakesh</i>	19.6.08															
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दिनांक एवं इस्तेमाल SIGN & DATE		<b>उत्पाद क्रय विनिर्देश</b>  <b>PRODUCT PURCHASE SPECIFICATION</b>	<b>HW 10578</b> पृष्ठ का <b>Page 5 of 7</b>
SUPERSEDES INVENTORY NO.  सामग्री सूची संख्या को प्रतिस्थापित करता है	<b>11. MECHANICAL PROPERTIES :</b>  The Mechanical properties shall be determined in the delivery condition. The specimens are to be taken per heat and heat treatment batch in longitudinal direction (upto 10 mm round specimen or flat tensile specimen ). The following properties shall be achieved at room temperature: 11.1 Tensile : When tested in accordance with IS:1608 or equivalent standard the material shall meet the tensile requirements specified below:  Tensile strength : 800 to 1100 N/mm <sup>2</sup> . 0.2% proof stress : ≥ 350 N/ mm <sup>2</sup> (min ) Elongation 5.65√ so: ≥40% Impact value: ≥150J  11.2 Impact test :- Test specimen when tested in accordance with IS:1757 or equivalent standard shall show a minimum impact value of 150 J(Average of 3 V-notch tests).		
COPYRIGHT AND CONFIDENTIAL  The information on this documents is the property of Bharati Heavy Electrical Limited. It must not be used directly or indirectly in any way detrimental to the interest of the company.	<b>12. TESTING OF SIZE ACCURACY :</b> The number of bars which shall be inspected for accuracy to size by measurements made at the manufacturer's works prior to dispatch shall be agreed to at the time of ordering. 13.1: The thickness and width according to clause 5.2.2 shall be measured at a distance of not less than 150 mm from the end of the bars when delivery is made in manufacturing lengths and at any point desired when delivery is made in fixed lengths, and exact lengths. 13.2: When testing straightness according to clause 5.2.3 the dimension 'q' shall be measured over the full length of the bars .		
स्वत्वाधिकार एवं गोपनीय  इस दस्तावेज में दी गई सूचना भारत के ही इलेक्ट्रिकल्स को, संचालित है इसका प्रस्ताव एवं अप्रस्ताव काय से किसी भी तरह प्रयोग, जो कि कंपनी को हित में हानिकारक हो न किया जाए ।	दिनांक SIGN & DATE 		
सामग्री सूची संख्या INVENTORY NO. <b>P-2287</b>	REV.NO.  <b>02</b>	निर्माणकर्ता WORKED BY Amit 	19.6.08
सामग्री सूची संख्या INVENTORY NO. <b>P-2287</b>	REV.NO.  <b>02</b>	जांचकर्ता CHECKED BY Rakesh Kr. 	19.6.08

दिनांक एवं प्रारम्भिक दिनांक SIGN & DATE		<p style="text-align: center;"><b>उत्पाद क्रय विनिर्देश</b></p> <p style="text-align: center;"><b>PRODUCT PURCHASE SPECIFICATION</b></p>		<p style="text-align: right;"><b>HW10578</b></p> <p style="text-align: right;">पृष्ठ का <b>Page 6 of 7</b></p>	
सामग्री सूची संख्या को SUPERSEDES INVENTORY NO. अधिलेखित करना है	<p><b>13. WELDABILITY:</b> The material is weldable by arc and resistance welding and in some cases also by gas welding. Since the weldability is not that good the material is to be welded under consideration of special preventive measures. Care should be taken that in weld seam and hot HAZ there may be a decrease in the strength/mechanical properties.</p> <p><b>14. FREE CUTTING MACHINING :</b> Machining of this material is difficult in view of its higher stiffening property, so that low cutting speeds and corresponding cutting angles are earmarked. Special tool materials are to be chosen for their machining.</p> <p><b>15. ULTRASONIC TEST:</b> Prematerials for bars shall be ultrasonically tested to ensure freedom from defects such as cracks , piping and line segregation . The method followed shall be reported in test certificate.</p> <p><b>16. TEST CERTIFICATES:</b> Three copies of test certificate shall be supplied unless otherwise specified in the order. The test certificates shall bear the following information:-          BHEL, Reference:          plant purchasing specification no.HW-10578          Our order no.          Supplier's Reference.          Supplier's name          Identification No.          Cast no.          Process of manufacture.          Complete heat treatment details.          Size and quantity.          Test results .          Chemical analysis.          Mechanical properties.          Ultrasonic test.          Size accuracy test.</p>				
COPYRIGHT AND CONFIDENTIAL The information on this document is the property of Bharat Heavy Electricals Limited. It must not be used directly or indirectly in any way detrimental to the interest of the company					
स्वत्वाधिकार एवं गोपनीय इस प्रलेख में की गई सूचना भारत भारती इलेक्ट्रिकल्स की सम्पत्ति है इसका प्रयोग एवं प्रसारण के बिना या इसकी शर्तों के बिना, जो कि कंपनी के हित में मान्यताएँ हैं, न किया जायेगा					
दिनांक एवं दिनांक SIGN & DATE P-2287	REV.NO. 02		निर्माणकर्ता WORKED BY Amit	19.6.08 	
			जांचकर्ता CHECKED BY Rakesh Kr.		19.6.08

दिनांक एवं प्रत्याक्षेपक SIGN & DATE 02/11/08	सापेक्ष सूची संख्या INVENTORY NO. P-2287		<b>उत्पाद क्रय विनिर्देश</b>  <b>PRODUCT PURCHASE SPECIFICATION</b>	<b>HW 10578</b> पृष्ठ का Page 7 of 7			
* COPYRIGHT AND CONFIDENTIAL The information on this documents is the property of Bharat Heavy Electrical Limited. It must not be used directly or indirectly in any way detrimental to the interest of the company.		<p><b>17. PACKING &amp; MARKING:</b> All bars shall be stamped with the heat number and HW10578 the material shall be suitably packed to prevent corrosion and damage during transit. A metal label shall be securely attached to each bundle and shall bear the following information:                  HW 10578                  Our order no.....                  Consignment or identification no.....                  Cast no.....                  Size.....                  Weight.....                  Supplier's name..</p> <p><b>18. CLEARANCE FOR DELIVERY:</b> 20.1: Cross results of tests are to be sent to BHEL before the clearance for delivery.                  20.2: BHEL evaluate these gross results under consideration of working stresses prescribed for bars and judge thereafter the admissibility of deviation, if any, from the properties required from this specification.                  20.3: The clearance does not release the suppliers from the responsibility of hidden defects which are detected later on.</p> <p><b>19. CROSS REFERRED STANDARDS</b>                  1. IS:1608                  2. IS:1757</p>					
स्वत्वाधिकार एवं गोपनीय इस प्रलेख में दी गई सूचना भारत हेवी इलेक्ट्रिकल्स की संपत्ति है। इसका प्रयोग एवं प्रसारण के बिना भारत हेवी इलेक्ट्रिकल्स की अनुमति के बिना नहीं किया जा सकता।		दिनांक एवं प्रत्याक्षेपक SIGN & DATE 02/11/08	सापेक्ष सूची संख्या INVENTORY NO. P-2287	REV.NO. 02	निर्माणकर्ता WORKED BY Amit 	जांचकर्ता CHECKED BY Rakesh Kr. 	19.6.08     19.6.08


**ANNEXURE-IV**  
**(Quality Plan)**

MANUFACTURER'S NAME AND ADDRESS		QUALITY PLAN				TO BE FILLED BY BHEL		TO BE FILLED BY BHEL				
BHEL	VENDOR'S NAME	ITEM	AS PER PO		QP NO.	C03						
					REV	01						
		DRG. NO.	AS PER PO									
		SPEC.	AS PER PO									
REV	AS PER PO				Page 1 of 1							
SL. NO.	COMPONENT & OPERATIONS	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK	REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORDS	AGENCY			REMARKS
1	2	3	4	5	6	7	8	9	D	10		11

1	MELT ANALYSIS	CHEMICAL COMPOSITION	CRITICAL	CHEMICAL	EACH HEAT	BHEL SPEC	BHEL SPEC	TC	√	P	V		
2	MECHANICAL TESTING	MECHANICAL	MAJOR	MECHANICAL	AS PER SPEC	BHEL SPEC	BHEL SPEC	TC	√	P	W		
3	NON DESTRUCTIVE TESTING	NDT	MAJOR	NDT	AS PER SPEC	BHEL SPEC / DRAWING	BHEL SPEC / DRAWING	TC	√	P	W		
4	VISUAL & DIMENSIONAL CHECK	VISUAL DIMENSIONS	MAJOR	VISUAL MEASUREME NT	AS PER SPEC	BHEL SPEC / DRAWING	BHEL SPEC / DRAWING	TC	√	P	W		

NOTE: TPIA TO REVIEW ALL THE REMAINING TCs AS PER ORDERING DRAWING / SPEC / TDC / DOCUMENTS.

**TEST CERTIFICATES SHALL BE SUBMITTED BY THE VENDOR WITH CLEAR MARKING OF QP CLAUSE NUMBER AT THE TOP OF THE EACH PAGE. ALSO, TEST CERTIFICATES SHALL BE ARRANGED QP CLAUSE WISE.**

		LEGEND: ! RECORDS IDENTIFIED WITH 'TICK' UNDER COULMN "D" SHALL BE ESSENTIALLY INCLUDED BY CONTRACTOR IN QA DOCUMENTATION. M: MANUFACTURER / SUBCONTRACTOR B: BHEL / NOM. INSPECTION AGENCY N: CUSTOMER INDICATE 'P' PERFORM 'W' WITNESS AND 'V' VERIFICATION ALL 'W' INDICATED IN COLUMN 'N' SHALL BE 'CHP' OF CUSTOMER	FOR CUSTOMER USE	
MANUFACTURER/SUBCONTRACTOR	I B Kumar Dy.Mgr, QAX, BHEL			APPROVED BY

**ANNEXURE-V**  
**(Risk Purchase Clause)**

## **Risk Purchase Clause**

In case of abnormal delays (beyond the maximum late delivery period as per Penalty clause) in supplies / defective supplies or non-fulfilment of any other terms and conditions given in Purchase Order, BHEL may cancel the Purchase Order in full or part thereof, and may also make the purchase of such material from elsewhere / alternative source at the risk and cost of the supplier. BHEL will take all reasonable steps to get the material from alternate source at optimum cost. If bidder does not agree to the above Risk Purchase Clause, BHEL reserves the right to reject the offer. In case for compelling reasons BHEL accepts the offer without acceptance of this clause by the bidder and in the eventuality of Risk Purchase, appropriate action will be taken as per BHEL extant rules. This will be without prejudice to any other right of BHEL under the contract.

Risk & Cost Clause, in line with Conditions of Contract may be invoked in any of the following cases:

1. Contractor/ supplier's poor progress of the work vis-à-vis execution timeline as stipulated in the Contract, backlog attributable to contractor/ supplier including unexecuted portion of work/ supply does not appear to be executable within balance available period (#) considering its performance of execution.
2. Withdrawal from or abandonment of the work by contractor before completion of the work as per contract.
3. Non completion of work/ Non-supply by the Contractor/ supplier within scheduled completion/delivery period as per Contract or as extended from time to time, for the reason attributable to the contractor/ supplier.
4. Termination of Contract on account of any other reason (s) attributable to Contractor/ Supplier.
5. Assignment, transfer, subletting of Contract without BHEL's written permission resulting in termination of Contract or part thereof by BHEL.
6. Non-compliance to any contractual condition or any other default attributable to Contractor/ Supplier.

***#In-case inputs from BHEL/Customer are likely to be delayed or are actually delayed, this delay may also be taken into account while considering balance period available for execution of Contract.***

### **Risk and Cost against Balance Work:**

Risk & Cost Amount=  $[(A-B) + (A \times H/100)]$

Where,

**A**= Value of Balance scope of Work/ Supply (\*) as per rates of new contract

**B**= Value of Balance scope of Work/ Supply (\*) as per rates of old contract being paid to the contractor/ supplier at the time of termination of contract i.e. inclusive of PVC & ORC, if any.

**H** = Overhead Factor to be taken as 5

In case (A-B) is less than 0 (zero), value of (A-B) shall be taken as 0 (zero).

**\*(Balance scope of work/ supply)**

Difference of Contract Quantities and Executed Quantities as on the date of issue of Letter for 'Termination of Contract', shall be taken as balance scope of Work/ Supply for calculating risk & cost amount.

Contract quantities are the quantities as per original contract. If, Contract has been amended, quantities as per amended Contract shall be considered as Contract Quantities.

Items for which total quantities to be executed have exceeded the Contract Quantities based on drawings issued to contractor from time to time till issue of Termination letter, then for these items total Quantities as per issued drawings would be deemed to be contract quantities.

Substitute/ extra items whose rates have already been approved would form part of contract quantities for this purpose. Substitute/ extra items which have been executed but rates have not been approved, would also form part of contract quantities for this purpose and rates of such items shall be determined in line with contractual provisions.

However, increase in quantities on account of additional scope in new tender shall not be considered for this purpose.

**NOTE: In case portion of work is being withdrawn, contract quantities pertaining to portion of work withdrawn shall be considered as 'Balance scope of work/supply' for calculating Risk & Cost amount.**

**LD against delay in executed work/supply in case of Termination of Contract**

LD against delay in executed work/supply shall be calculated in line with LD clause of the contract for the delay attributable to contractor/ supplier. For this purpose, contract value shall be taken as Executed Value of work/supply for the purpose of limiting maximum LD value.

Method for calculation of "LD against delay in executed work/supply" is given below.

- i. Let the time period from scheduled date of start of work till termination of contract excluding the period of Hold (if any) not attributable to contractor/ supplier= T1
- ii. Let the value of executed work/supply till the time of termination of contract= X
- iii. Let the Total Executable Value of work/supply for which inputs/fronTS were made available to contractor/ supplier and were planned for execution till termination of contract = Y
- iv. Delay in executed work/supply attributable to contractor/supplier i.e.  
$$T2 = \frac{(1-X)}{Y} \times T1$$
- v. LD shall be calculated in line with LD clause of the Contract for the delay attributable to contractor/ supplier taking "X" as Contract Value and "T2" as delay attributable to contractor/ supplier.

**Note: In case portion of work/supply is withdrawn, no LD shall be applicable for portion of work/supply withdrawn.**

## ANNEXURE- VI

### Certificate by Chartered Accountant on letter head

This is to Certify that M/s .....  
(hereinafter referred to as 'company') having its registered office at .....is  
registered under MSMED Act 2006, (Entrepreneur Memorandum No (Part- II)  
.....dtd:.....,  
Category:.....(Micro/Small).(copy enclosed).

Further verified from the Books of Accounts that the investment of the company as  
on date .....as per MSMED Act 2006 is as follows:

1. **For Manufacturing Enterprises:** Investment in plant and machinery (i.e. original cost excluding land and building and the items specified by the Ministry of Small Scale Industries vide its notification No. S.O.1722(E) dated October 5, 2006:  
Rs.....Lacs
2. **For Service Enterprises:** Investment in equipment (original cost excluding land and building and furniture, fittings and other items not directly related to the service rendered or as may be notified under the MSMED act, 2006:  
Rs.....Lacs

**(Strike off whichever is not applicable)**

The above investment of Rs .....Lacs is within permissible limit of Rs..... Lacs for  
.....micro / small (Strike off which is not applicable) Category under MSMED Act 2006.

Or

The company has been graduated from its original category (Micro / Small) (**Strike off whichever is not applicable**) and the date of graduation of such enterprises from its original category is .....  
(dd/mm/yyyy) which is within the period of 3 years from the date of graduation of such enterprises from its original category as notified vide S.O. No. 3322(E) dated 01.11.2013 published in the gazette notification dated 04.11.2013 by Ministry of MSME.

Date:

(Signature)

Name-

Membership Number-

Seal of Chartered Accountant