

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

**Sub: Requirement of SS Sheets**

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.

Bids are invited for following items through GeM Portal- <https://gem.gov.in>

| Item Description  | Mat. Code    | Size (mm)                      | Qty. (Kg) | Delivery   |
|---|--------------|--------------------------------|-----------|------------|
| Hot Rolled Sheet<br><b>Specification-</b><br>HW10780 Rev 00 | HW1071780018 | 1.5 x (600-1000) x (1000-2000) | 500       | 15/12/2024 |

**Remarks-**

1. Delivery period mentioned in enquiry is indicative, bidders to quote their best possible delivery.
2. Quantity tolerance  $\pm 10\%$  is acceptable in view of dimensional tolerances.
3. **Breach of Contract:**

In case of breach of contract, wherever the value of security instruments like performance bank guarantee available with BHEL against the said contract is at least 10% of the contract value, the same be encashed. In case the value of the security instruments available is less than 10% of the contract value, the balance amount be recovered from other financial remedies (i.e. available bills of the contractor, retention amount, etc. with BHEL) or legal remedies be pursued. The balance scope shall be got done independently without Risk & Cost of the failed supplier/ contractor. Further, levy of liquidated damages, debarment, termination, de-scoping, short-closure, etc., shall be applied as per provisions of the contract. Accordingly, recovery of an amount equivalent to 10% of the contract value shall be made in case of breach of contract.

4. Payment terms shall be as follows:

| Type of Bidder                   | Payment Terms (Number of days) |
|----------------------------------|--------------------------------|
| Micro & Small Enterprises (MSEs) | 45 days                        |
| Medium Enterprises               | 60 days                        |
| Non MSME                         | 90 days                        |

**Note:** Benefits of MSE (such as EMD Waiver, Tender fee exemption, Price preference, Payment preference etc.) will be given only to those MSE Vendors who are manufacturers of offered items against the NIT. No MSE benefits shall be provided to Agents / Stockists / Dealers / Traders etc. for the items offered but not manufactured by themselves.

5. “A bidder shall not have conflict of interest with other bidders. Such conflict of interest can lead to anti-competitive practices to the detriment of Procuring Entity’s interests. **The bidder found to have a conflict of interest shall be disqualified.** A bidder may be considered to have a conflict of interest with one or more parties in the bidding process, if”
- a. They have controlling partner (s) in common; **or**
  - b. They receive or have received any direct or indirect subsidy/financial state from any of them; **or**
  - c. They have the same legal representative/ agent for purposes of this bid; **or**
  - d. They have relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on the bid of another Bidder; **or**
  - e. Bidder participates in more than one bid in this bidding process. Participation by a Bidder in more than one Bid will result in the disqualification of all bids in which the parties are involved. However, this does not limit the inclusion of the components / sub-assembly/ Assemblies from one bidding manufacturer in more than one bid; **or**
  - f. In cases of agents quoting in offshore procurements, on behalf of their principal manufacturers, one agent cannot represent two manufacturers or quote on their behalf in a particular tender enquiry. One manufacturer can also authorize only one agent / dealer. There can be only one bid from the following:
    1. The principal manufacturer directly or through one Indian agent on his behalf; and
    2. Indian/ foreign agent on behalf of only one principal;**or**
  - g. A Bidder or any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the contract that is the subject of the Bid; **or**
  - h. In case of a holding company having more than one independently manufacturing units, or more than one unit having common business ownership/management, only one unit should quote. Similar restrictions would apply to closely related sister companies. Bidder must proactively declare such sister/ common business/ management units in same/ similar line of business.”
6. Rest terms & condition shall be as per latest GeM GTC.

### **Pre- Qualification Requirements**

| <b>PQR Point</b> | <b>Requirements</b>   | <b>Vendor's reply</b> |
|------------------|---|-----------------------|
| <b>1</b>         | Bidder should have experience of supplying steel sheets of grade X10Cr13 or any other stainless-steel grade (having Cr $\geq$ 12%). In support of the same, bidder should submit copy of at least one purchase order and its corresponding invoice and Test certificate/Mill certificate.<br>The supply should be within last 5 years from date of enquiry issue. |                       |
| <b>2</b>         | Bidder to confirm that they will meet all the requirement of BHEL-specification HW10780, Rev 00.  |                       |

| <b>Sl No.</b> | <b>Quality Requirement</b>   | <b>Vendor's confirmation (Y/N)</b> |
|---------------|--|------------------------------------|
| <b>1</b>      | Testing and certification as per ordering specification and documents. |                                    |

**Signature with stamp**

**Name:**

**Name of Firm:**

**Designation:**

**Date:**

**(Self-Certification for local content)**

In line with Government Public Procurement Order 2017 dated 16.09.2020, we hereby certify that we

.....  
(supplier name) inform that local content is .....% (indicate percentage of local content) and are

**Class- I local supplier** (meeting requirement of)-

**Minimum Local content 50%**

or

**Class- II local supplier** (meeting requirement of)-

**Minimum Local content 20%**

(mark wherever applicable)

defined by Nodal Ministries/ Departments as per above order for the material against Enquiry No.

.....  
Details of location at which local value addition will be made is as follows:

.....  
.....  
.....

We also understand, false declarations will be in breach of the Code of Integrity under Rule 175(1)(i)(h) of the General Financial Rules for which a bidder or its successors can be debarred for up to two years as per Rule 151 (iii) of the General Financial Rules along with such other actions as may be permissible under law.

Seal and Signature of Supplier

**(Specification)**

**HW10780 Rev 00**

|  |  |               |                           |                    |        |
|--|--|---------------|---------------------------|--------------------|--------|
| SIGN & DATE  |  | SIGN & DATE   |                           | SIGN & DATE        |        |
| REC'D. NO.   |  | 7233(01)      |                           | 8/88               |        |
| INVENTORY NO.  |  | P-2106        |                           | 12/14              |        |
| COPYRIGHT AND CONFIDENTIAL<br>The information on this document is the property of BHARAT HEAVY ELECTRICALS LIMITED.<br>It must not be used directly or indirectly in any way detrimental to the interest of the company. |  |               |                           |                    |        |
| PLANT PURCHASING SPECIFICATION   |  | HW 10780      |                           | PAGE 1 OF 24       |        |
| HEEP — HARDWAR   |  |               |                           |                    |        |
| <b>STAINLESS STEEL SHEETS/PLATES</b>   |  |               |                           |                    |        |
| 1. GENERAL:  | This specification covers the requirement of hot-rolled sheets/plates made out of grade X10Cr13 according to DIN 17440 and with the following additional instructions.   |               |                           |                    |        |
| 2. APPLICATION:  | Sheets/plates required for bandages and packing of working blades and other components of steam turbine.   |               |                           |                    |        |
| 3. CONDITION OF SUPPLY:  | Sheets/plates shall be supplied in hot rolled heat-treated and pickled conditions.   |               |                           |                    |        |
| 4. DIMENSIONS AND TOLERANCES:  | The dimensions of sheets/plates shall be stated in the order. The tolerances shall be as per IS:6911 (latest edition).   |               |                           |                    |        |
| 5. MANUFACTURE:  | The steel shall be made in basic electric furnace unless otherwise agreed upon between supplier and BHEL.  |               |                           |                    |        |
| 6. HEAT TREATMENT:   | 6.1 Sheet/plates shall be heat-treated to get the mechanical properties as per clause 11.0.<br>6.2 The tempering temperature shall not be below 700°C. Minimum residual stresses shall be aimed through sufficient time at temperature and slow-cooling from the tempering temperature.<br>6.3 If plates are required to be straightened the straightening operation shall be followed by stress relieving operation at temperature below 10°C of tempering temperature with slow cooling. |               |                           |                    |        |
| 7. FREEDOM FROM DEFECTS:   | Crack, laps and other material defect as well as strong linear form of running inclusions lines are not permissible.   |               |                           |                    |        |
| REAFFIRMED<br>YEAR 2021  |  |               |                           |                    |        |
| Revision :   | WORKED BY  | ASHOK AGRAWAL | Approved :                | PLANT              | PS     |
| Date:  | CHECKED BY   | RANTEET       | STANDARDIZATION COMMITTEE |                    | 2.60   |
| Computer   | Signature  | Signature     | Prepared                  | Issued             | Date   |
| K. K. GUPTA  | N. CHANDRA   | PRAKASH SINGH | STE                       | STANDARDS DIVISION | 5.4.80 |
| C/A NO. - TSX(MTE)-21-46, DATE - 22.01.21  |  |               |                           |                    |        |



SIGN &amp; DATE

SUPERSEDED  
INVENTORY NO.

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.

SIGN &amp; DATE

INVENTORY NO.




# PLANT PURCHASING SPECIFICATION

## HEEP — HARDWAR

HW 10780

PAGE 2 OF 24<sup>⑥</sup><sub>3</sub>

8. FINISH: The sheets/plates shall be free from rolling texture.
9. CHEMICAL COMPOSITION: 9.1 The chemical composition of the material shall conform to the following:
- | Element    | % MIN | % MAX |
|------------|-------|-------|
| Carbon     | 0.08  | 0.12  |
| Silicon    | 0.10  | 0.50  |
| Manganese  | 0.30  | 0.80  |
| Chromium   | 12.00 | 14.00 |
| Sulphur    | -     | 0.025 |
| Phosphorus | -     | 0.045 |
- 9.2 Small deviation in chemical composition can be permitted after making reference to BHEL if the properties of the material are not impaired.
10. SELECTION OF TEST SAMPLES: The test sample shall be taken for testing of mechanical properties from each melt and heat treatment batch.
11. MECHANICAL PROPERTIES: 11.1 The sheet/plates shall conform to the following mechanical properties:
- |                     |                           |
|---------------------|---------------------------|
| 0.2% Proof stress   | 450-600N/mm <sup>2</sup>  |
| Tensile strength    | 800N/mm <sup>2</sup> Max. |
| % Elongation        | 13 Min.                   |
| % Reduction in Area | 50 Min.                   |
| Impact Value*       | 30J Min.                  |
- \*Average of 3 ISO-V samples.
- 11.2 Tensile test: OR ANY OTHER INTERNATIONAL STANDARD — ⑥  
When tested according to IS:1608, the gauge length shall conform to  $l = 5.65/S_0$
- 11.3 Impact test  
The impact test shall be conducted on ISO-V notch as per IS:1757. The impact value shall be determined for the plates greater than 10mm of thickness.
- ⑥ OR ANY OTHER INTERNATIONAL STANDARD.
12. NON-DESTRUCTIVE TESTING: 12.1 The sheets/plates shall be visually inspected for surface defects.
- 12.2 Dimensional checking. VERIFICATION TEST: ALL SHEETS/PLATES SHALL BE SUBJECTED TO VERIFICATION TEST.
13. TEST CERTIFICATES: The supplier shall supply four copies of test certificates unless and otherwise stated on order. The test certificate shall contain the following:-
- ⑥ — λ AS PER EN 10204, 3.1C.,

|  |                            |   |  |               |  |
|--|----------------------------|---|--|---------------|--|
|   |                            | PLANT PURCHASING SPECIFICATION  |  | HW 10780      |  |
|  |                            | HEEP — HARDWAR  |  | PAGE 3 OF 243 |  |
| SIGN & DATE  | SUPERVISOR'S INVENTORY NO. | 13.1 BHEL reference<br>Purchase order number<br>Specification number<br><br>13.2 Supplier's reference<br>Material designation<br>Melt number<br>Heat-treatment batch no.<br>Method of melting.<br><br>13.3 <u>Test results</u><br><br>Chemical analysis, mechanical properties<br>individual test results shall be given,<br>heat-treatment details, visual inspection,<br>dimensional checking, verification test. |  |               |  |
|  |                            |   |  |               |  |
| COPYRIGHT AND CONFIDENTIAL<br>The information on this document is the property of BHARAT HEAVY ELECTRICALS LIMITED.<br>It must not be used directly or indirectly in any way detrimental to the interest of the company. |                            | 14. RECTIFICATION OF DEFECTS:   | The rectification of defects shall be done only after prior approval from BHEL and according to approved rectification plan.   |               |  |
|  |                            | 15. CLEARANCE AND DELIVERY:   | The total test results are decisive for the clearance of delivery. BHEL evaluates these total results with regards to the intended operational requirements of the material and judges according to admissibility of deviation from the properties required in this specification (in case there are any).<br><br>The clearance does not release the supplier from the responsibility for hidden defects which are detected later on.  |               |  |
| SIGN & DATE<br>12/1-9<br>P-2106  |                            | 16. PACKING AND MARKING:  | The sheets/plates are to be identified with the following punched at a height of 8-16 mm on scale free surface:<br><br>a) Supplier's identification.<br>b) Material designation<br>c) Melt number<br>d) test number<br>e) BHEL order number<br><br>All marks are to be stamped at a distance of minimum 200 to 400 mm from the bottom end. The punched letters should be vertical when seen from the bottom in the rolling direction of the sheets plates. The punching shall be bordered rectangularly with white paint.<br><br>The sheets/plates shall be properly packed so that they are protected against corrosion and damage during transportation. |               |  |
|  |                            | 17. CROSS REFERRED STANDARDS:   | DIN 17440, IS 6911, IS 1608, IS 1757, EN 10204,  |               |  |