

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

Sub: Requirement of 16MO3 Grade Alloy Steel Plates

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>

Tender No	Item Description	Size (mm)	Qty. (Kg)	Lot Qty.	Delivery	Delivery Period (in No. of days from PO date)
F/F219/24/3290/K1	HW1051864046 16MO3-Z15 ALLOY STEEL PLATES SPECIFICATION: HW10564 REV 02	25x2200x8000	52000	Lot-1- 27800Kg Lot-2- 24200Kg	Lot 1- 30/07/2025 Lot 2- 30/12/2025	Lot 1: 90 days Lot 2: 180 days
	HW1051870127 ALLOY STEEL PLATES GRADE- 16MO3 SPECIFICATION: HW10570 REV 03	60x (1000-2500) x3200 or multiple of length	35000	Lot-1- 18000Kg Lot-2- 17000Kg	Lot 1- 30/07/2025 Lot 2- 30/12/2025	Lot 1: 90 days Lot 2: 180 days

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 atleast 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:

The payment shall be made within no. of days as defined in the below table from appointed day

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

Appointed day means

- The day of delivery of material i.e. C-Note Date, subject to submission of non-discrepant documents by vendor as per Purchase Order.
- Or
- Where there is any objection regarding acceptance of goods, the same shall be informed to supplier within fifteen days from the day of the delivery of good. Appointed day will be the day on which such objection is removed by the supplier.
- For BOIs, the appointed day means the date of receipt of material at respective project Site (i.e. MRC date).

Note: Benefits of MSE (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. Vendor should raise inspection call for BHEL / TPI inspection at least 4 days in advance to the planned date of inspection. If customer inspection is envisaged at vendor's works, vendor should give inspection call at least 7 days in advance to the planned date of inspection.
7. For this procurement, the local content to categorize a supplier as a Class I local supplier/ Class II local Supplier/ Non-local supplier and purchase preference to Class I local supplier, is as defined in Public Procurement (Preference to Make in India), Order 2017 dated 19.07.2024 issued by DPIIT. In case of subsequent orders issued by the nodal ministry, changing the definition of local content for the items of the NIT, the same shall be applicable even if issued after issue of this NIT, but before opening of Part-II bids against this NIT.
8. Test certificate and Guarantee certificate are required.
9. Rest terms and conditions shall be as per latest GeM GTC.

Pre- Qualification Requirements

(F/F219/24/3290/K1)

PQR Clause	Requirements	Vendor response										
1	<p>Past Experience Requirement:</p> <p>Vendor should have supplied alloy steel plates in material grade 16Mo3 / ASTM A204 Grade B or higher Cr-Mo / Cr-Mo-V etc. against at least one purchase order in last seven years on enquiry issue date.</p> <p>In support of above, vendor to submit details of at least one past supply in format given below:</p> <table><tr><th>Sl. No.</th><th>Plate Dimension (mm) (Thick. X Width X Length)</th><th>Material Grade</th><th>Name of customer/Purchase order No/Date of Supply</th><th>Quantity</th></tr><tr><td>1</td><td></td><td></td><td></td><td></td></tr></table> <p>Vendor to submit copy of purchase order and its correlated material test certificates with dispatch documents of above-mentioned purchase order.</p>	Sl. No.	Plate Dimension (mm) (Thick. X Width X Length)	Material Grade	Name of customer/Purchase order No/Date of Supply	Quantity	1					
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2	<p>Manufacturing & Testing Facility details:</p> <table><tr><td>a</td><td>Vendor to confirm that have manufacturing facilities like steel melting, rolling and heat treatment to manufacture plates of enquiry material grade and dimensions. Details of facility to be submitted.</td></tr><tr><td>b</td><td>Vendor to confirm that they have all testing facility (in-house / outsourced) to carry out testing as per enquiry drawing and specification. In case of outsourcing of any test, vendor to agree for testing at NABL accredited labs only.</td></tr><tr><td>c</td><td>Bureau of Indian Standard (BIS) approved vendors are exempted from submitting manufacturing & testing facilities details against 2a & 2b above. For this vendor to submit valid BIS certificate of their approval for plates of IS:2002 / IS:2041.</td></tr></table>	a	Vendor to confirm that have manufacturing facilities like steel melting, rolling and heat treatment to manufacture plates of enquiry material grade and dimensions. Details of facility to be submitted.	b	Vendor to confirm that they have all testing facility (in-house / outsourced) to carry out testing as per enquiry drawing and specification. In case of outsourcing of any test, vendor to agree for testing at NABL accredited labs only.	c	Bureau of Indian Standard (BIS) approved vendors are exempted from submitting manufacturing & testing facilities details against 2a & 2b above. For this vendor to submit valid BIS certificate of their approval for plates of IS:2002 / IS:2041.					
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Note: In case of trader / stockiest, details of principal manufacturer for point 1 & 2 are to be submitted.

Sl. No.	Quality Requirements	Vendor's confirmation (Y/N)
1	Pre-dispatch inspection by BHEL TPIA TUV for Indigenous and by TPIA (LRS/TUV/BV) for Import as per BHEL approved quality plan. vendor to endorse the attached quality plan with their sign & stamp.	

Signature with stamp

Name:

Name of Firm:

Designation:

Date:

(Self-Certification for local content)

**DECLARATION REGARDING MINIMUM LOCAL CONTENT IN LINE WITH
REVISED PUBLIC PROCUREMENT (PREFERENCE TO MAKE IN INDIA), ORDER 2017 DATED 04TH
JUNE, 2020 AND SUBSEQUENT ORDER(S)**

(To be typed and submitted in the Letter Head of the Entity/Firm providing certificate as applicable)

To,

(BHEL HEEP Haridwar)

Dear Sir,

Sub: Declaration reg. minimum local content in line with Public Procurement (Preference to Make in India), Order 2017-Revision, dated 04th June, 2020 and subsequent order(s).

Ref: 1) GeM Bid Specification No:

2) All other pertinent issues till date

We hereby certify that the items/works/services offered by..... *(specify the name of the organization here)* has a local content of _____ % and this meets the local content requirement for **'Class-I local supplier' / 'Class II local supplier'** ** as defined in Public Procurement (Preference to Make in India), Order 2017-Revision dated 04.06.2020 issued by DPIIT and subsequent order(s).

The details of the location(s) at which the local value addition is made are as follows:

1. _____ 2. _____

3. _____ 4. _____

...

Thanking you,

Yours faithfully,

**(Signature, Date & Seal of
Authorized Signatory of the Bidder)**

**** - Strike out whichever is not applicable.**

Note:


1. Bidders to note that above format, duly filled & signed by authorized signatory, shall be submitted along with the techno-commercial offer.
2. In case the bidder's quoted value is in excess of Rs. 10 crores, the authorized signatory for this declaration shall necessarily be the statutory auditor or cost auditor of the company (in the case of companies) or a practising cost accountant or practicing chartered accountant (in respect of suppliers other than companies).
3. In the event of false declaration, actions as per the above order and as per BHEL Guidelines shall be initiated against the bidder.


QUALITY PLAN
(QA/PMD/001 Rev 00)


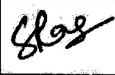

(Specification)

HW10564 Rev:02



HW10570 Rev:03


दिनांक एवं हस्ताक्षर SIGN & DATE			संस्थान क्रय विनिर्देश (हीप : हरिद्वार) PLANT PURCHASE SPECIFICATION (HEEP: HARIDWAR)	HW10564 पृष्ठ का Page 1 of 3																																															
SUPERSEDES INVENTORY NO.	TLV 9170 Part 20, 07/14	<p align="center">HEAT RESISTANT PLATE STEEL GRADE 16Mo3+Z15</p> <p>1.0 GENERAL:</p> <p>This material specification governs the quality of heat resistant plate of steel grade 16Mo3+Z15, material no 1.5415 as per EN10028-2.</p> <p>Plates as per ASTM A204 Gr B + Z15 or SB480M+N+Z15 as per JIS G3103 are also acceptable for plates upto 150mm thickness subject meeting the following requirements of this specification.</p> <p>2.0 APPLICATION:</p> <p>The plate shall be used for manufacture of turbine and generator components.</p> <p>3.0 CONDITION OF DELIVERY:</p> <p>The plate shall be supplied in normalized condition.</p> <p>4.0 DIMENSION AND TOLERANCES:</p> <p>The plate shall be supplied to the dimensions as per purchase order and tolerances shall be as per EN10029, class C</p> <p>5.0 HEAT-TREATMENT:</p> <p>Plates shall be normalized at 890 -950°C.</p> <p>6.0 PROPERTIES:</p> <p>Chemical composition and mechanical properties of plate shall be meet any one of the following three material grade (a/b/c) given below:</p> <p>(a) 16Mo3+Z15, material no 1.5415, EN10028 - 2</p> <table border="1"> <thead> <tr> <th>C</th> <th>Si</th> <th>Mn</th> <th>Mo</th> <th>S</th> <th>P</th> <th>Cr</th> <th>Cu</th> <th>N</th> <th>Ni</th> </tr> </thead> <tbody> <tr> <td>0.12 - 0.20</td> <td>≤ 0.35</td> <td>0.40 - 0.90</td> <td>0.25 - 0.35</td> <td>≤ 0.010</td> <td>≤ 0.025</td> <td>≤ 0.30</td> <td>≤ 0.30</td> <td>≤ 0.012</td> <td>≤ 0.30</td> </tr> </tbody> </table> <p>The tensile and impact test shall be tested on specimen taken perpendicular to rolling direction and following properties shall be achieved at room temperature.</p> <table border="1"> <thead> <tr> <th>Thickness (t) (mm)</th> <th>Yield strength N/mm²</th> <th>Tensile strength N/mm²</th> <th>Elongation L=5d %</th> <th>Impact Energy J * (20 °C)</th> </tr> </thead> <tbody> <tr> <td>t ≤ 16</td> <td>≥ 275</td> <td>440 - 590</td> <td rowspan="5">≥ 22</td> <td rowspan="5">≥ 31</td> </tr> <tr> <td>16 < t ≤ 40</td> <td>≥ 270</td> <td>440 - 590</td> </tr> <tr> <td>40 < t ≤ 60</td> <td>≥ 260</td> <td>440 - 590</td> </tr> <tr> <td>60 < t ≤ 100</td> <td>≥ 240</td> <td>430 - 580</td> </tr> <tr> <td>100 < t ≤ 150</td> <td>≥ 220</td> <td>420 - 570</td> </tr> <tr> <td>150 < t ≤ 250</td> <td>≥ 210</td> <td>410 - 570</td> <td></td> <td></td> </tr> </tbody> </table> <p>* Average of 3 Charpy V notch specimens, Minimum value ≥ 70% specified value.</p>			C	Si	Mn	Mo	S	P	Cr	Cu	N	Ni	0.12 - 0.20	≤ 0.35	0.40 - 0.90	0.25 - 0.35	≤ 0.010	≤ 0.025	≤ 0.30	≤ 0.30	≤ 0.012	≤ 0.30	Thickness (t) (mm)	Yield strength N/mm ²	Tensile strength N/mm ²	Elongation L=5d %	Impact Energy J * (20 °C)	t ≤ 16	≥ 275	440 - 590	≥ 22	≥ 31	16 < t ≤ 40	≥ 270	440 - 590	40 < t ≤ 60	≥ 260	440 - 590	60 < t ≤ 100	≥ 240	430 - 580	100 < t ≤ 150	≥ 220	420 - 570	150 < t ≤ 250	≥ 210	410 - 570		
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Di.	21.04.18	परिवर्तन CHANGE ADVICE NO.	TSX (MTE) - 18-24	दिनांक DATE : 07.10.91																																															

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दिनांक एवं हस्ताक्षर SIGN & DATE		संस्थान क्रय विनिर्देश (हीप : हरिद्वार) PLANT PURCHASE SPECIFICATION (HEEP: HARIDWAR)		HW10564 पृष्ठ का Page 3 of 3	
सुपरसेडिड INVENTORY NO. भारती सूची संख्या में नमूनाकरण क्रमांक	<ul style="list-style-type: none"> Through thickness tension test shall be performed according to JIS G3199 per lot, where 1 lot consists of up to 4 plates of the same thickness and melt. Aluminium content shall be determined and reported in inspection reports for all the above three grades. Elements not listed in table above shall not be intentionally added to the steel without the agreement of the purchase except for finishing the cast. 				
COPYRIGHT AND CONFIDENTIAL The information on this document 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.	7.0 OUTER AND INNER QUALITY / NON DESTRUCTIVE TESTING: 7.1 SURFACE CONDITION: As per EN 10163-2, class B. Welding repair not permitted. 7.2 SCOPE OF INSPECTION: Following NDE shall be performed in delivery condition: <ul style="list-style-type: none"> - Verification inspection of all plates - UT inspection shall be according to EN10160. The criteria for registration and decision of quality class S1 according to EN 10160 (table 3) shall be applied and fulfilled; where 10 clusters of heterogeneities in the square of 1m x 1m with the highest density are the maximum acceptable number. 				
स्वतंत्रतापूर्वक एवं गोपनीय यह दस्तावेज केवल भारती सूची संख्या में नमूनाकरण क्रमांक के बिना ही प्रयोग नहीं किया जा सकता है। इस दस्तावेज में किसी भी प्रकार का प्रयोग बिना भारती सूची संख्या में नमूनाकरण क्रमांक के ग्राहक द्वारा नहीं किया जा सकता है।	8.0 TEST CERTIFICATES: The supplier shall supply four copies of test certificates as per EN 10204, certificate 3.1 B, unless otherwise stated on the order. The test certificates shall bear the following: <ul style="list-style-type: none"> - BHEL References: - Specification number, Purchase order no. - Suppliers references: Name, emblem, material designation, melt no., heat treatment batch no. Results of testing <ul style="list-style-type: none"> - Melting process, melt analysis - Details of Heat-treatment performed, - Mechanical and Impact test results - U.T. Results - Confirmation of the verification inspection 				
दिनांक एवं हस्ताक्षर SIGN & DATE 27/01/18	9.0 MARKING: The marking of the materials shall be such that heat no., steel grade/specification & manufacturer name / identifications are legible. 10.0 CLEARANCE FOR DELIVERY: The total results of the tests carried out are the deciding factor for clearance for delivery. BHEL shall evaluate the total results taking into consideration the intended use of the material and examines accordingly the permissibility of deviation (if any) from the specified properties. The clearance however does not relieve the supplier of his responsibility for the hidden non-permissible defects, which are found later. 11.0 FREEDOM FROM DEFECTS: Plate shall be free from defects such as cracks, flacks, seams, segregation, inclusion and other defects which may affect the utility of the plates. 12.0 CROSS REFERRED STANDARDS: EN 10028, EN 10029 ASTM A204, JIS G3103, EN 10160, EN 10163, EN 10204, ASTM A770, EN10164, JIS G3199				
भारती सूची संख्या INVENTORY NO. P3202	REV. NO. 02		निर्माणकर्ता WORKED BY S.RANA		19.04.2018
			जांचकर्ता CHECKED BY A. RANJAN		19.04.2018

संस्थान क्रय विनिर्देश (हीप : हरिद्वार) PLANT PURCHASE SPECIFICATION (HEEP: HARIDWAR)	HW10570 पृष्ठ का Page 1 of 3																													
	SIGN & DATE 27/11/18																													
SUPERSEDES INVENTORY NO. TLV 9170 Part 04, 07/14	HEAT RESISTANT PLATE STEEL GRADE 16Mo3																													
1.0 GENERAL: This material specification governs the quality of heat resistant plate of steel grade 16Mo3, material no 1.5415 as per EN10028-2. Plates as per ASTM A204 Gr B or SB480M+N as per JIS G3103 are also acceptable for plates upto 150mm thickness subject to meeting the following additional requirements of this specification.																														
2.0 APPLICATION: The plate shall be used for manufacture of turbine and generator components.																														
3.0 CONDITION OF DELIVERY: The plate shall be supplied in normalized condition.																														
4.0 DIMENSION AND TOLERANCES: The plate shall be supplied to the dimensions as per purchase order and tolerances as per EN 10029, class C																														
5.0 HEAT-TREATMENT: Plates shall be normalized at 890 - 950°C.																														
6.0 PROPERTIES: Chemical composition and mechanical properties of plate shall be meet any one of the following three material grade (a/b/c) given below: (a) 16Mo3, material no 1.5415, EN10028 - 2																														
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मंजूर विभाग AGREED DEPT.	नाम NAME DATE & SIGNATURE	निष्ठा एवं हस्ताक्षर SIGNATURE & DATE 19.4.18 19.4.18																												
संस्थान मानकीकरण समिति APPROVED : PLANT STANDARDIZATION COMMITTEE	स्वीकृति APPROVED : PLANT STANDARDIZATION COMMITTEE	Gr. NO. 2.60																												
REV.NO. 03 DL 21.04.18 CHANGE ADVICE NO. TSX(MTE)-18-25	SUPERSEDES (SUPERSEDES)	निर्माण PREPARED : MTE जारी ISSUED : TSX दिनांक DATE : 02.12.91																												

सिग्न एवं इन्सार्क SIGN & DATE		संस्थान क्रय विनिर्देश (हीप : हरिद्वार) PLANT PURCHASE SPECIFICATION (HEEP: HARIDWAR)	HW10570 पृष्ठ का Page 2 of 3																												
सुपरसेड्स INVENTORY NO. सावरी सूची संख्या को अतिरिक्त प्रदा है	(b) ASTM A 204, Gr B: For thickness upto 150 mm (with additional requirements)																														
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सावरी सूची संख्या INVENTORY NO. 22/12/18	सिग्न एवं इन्सार्क SIGN & DATE 	स्वामित्विकार एवं गोपनीय इस प्रतीक में ही यह सूचना प्रदात है कि यह दस्तावेज सिग्न और इन्सार्क के बिना ही प्रमाणित नहीं है। एवं प्रमाणित रूप से किसी भी तरह प्रयोग, जो कि कंपनी के हित में सुविधाजनक हो न किया जावे।	REV. NO. 03																												
निर्माणकर्ता WORKED BY S.RANA		19.04.2018																													
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दिनांक एवं हस्ताक्षर SIGN & DATE		संस्थान क्रय विनिर्देश (हीप : हरिद्वार) PLANT PURCHASE SPECIFICATION (HEEP: HARIDWAR)		HW10570 पृष्ठ का Page 3 of 3	
SUPERSEDES INVENTORY NO. वास्तवी पूर्ण संख्या की संज्ञितिका संख्या है	7.0 OUTER AND INNER QUALITY / NON DESTRUCTIVE TESTING: 7.1 SURFACE CONDITION: As per EN 10163-2, class B. Welding repair not permitted. 7.2 SCOPE OF INSPECTION: Following NDE shall be performed in delivery condition: <ul style="list-style-type: none"> - Verification inspection of all plates - UT inspection shall be according to EN10160. The criteria for registration and decision of quality class S1 according to EN 10160 (Table 3) shall be applied and fulfilled; where 10 clusters of heterogeneities in the square of 1m x 1m with the highest density are the maximum acceptable number. 				
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	8.0 TEST CERTIFICATES: The supplier shall supply four copies of test certificates as per EN 10204, certificate 3.1 B, unless otherwise stated on the order. The test certificates shall bear the following: <ul style="list-style-type: none"> - BHEL References: - Specification number, Purchase order no. - Suppliers references: Name, emblem, material designation, melt no., heat treatment batch no. Results of testing <ul style="list-style-type: none"> - Melting process, melt analysis - Details of Heat-treatment performed - Mechanical and impact test results - U.T. Results - Confirmation of the verification inspection 				
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वास्तवी पूर्ण संख्या INVENTORY NO. P-3126	REV. NO. 03		निर्माणकर्ता WORKED BY जांचकर्ता CHECKED BY	S.RANA A. RANJAN	19.04.2018 19.04.2018