

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

Tender No.: F/F219/19/4179/K1

Sub: BHEL-HEEP/OPEN-TENDER for Alloy Steel Plates (16MO3)

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.

Sealed tenders with the Tender No. and opening date clearly super scribed on the cover are invited from the manufacturers (registered as well as unregistered) for the supply of the following items: -

Tender No.	Item Description	Mat. Code	Size (mm)	Qty. (Kg)	Qty. (No)	Delivery Schedule
F/F219/19/4179 /K1	Alloy Steel Plates (16MO3) Specification- HW10570 Rev 03	HW1051870100	50 x 2500 x 8000mm	7850	01	15.05.2020
		HW1051870127	60 x 2500 x 8000mm	18840	02	15.05.2020
		HW1051870208	70 x 2500 x 8000mm	65940	06	15.05.2020
		HW1051870313	80 x 2500 x 8000mm	62800	05	15.05.2020
		HW1051870186	100 x 2000 x 6000mm	9420	01	15.05.2020
		HW1051870216	120 x 2000 x 6000mm	11304	01	15.05.2020
		HW1051870275	140 x 2000 x 6000mm	13188	01	15.05.2020
		HW1051870291	160 x 2000 x 6000mm	15072	01	15.05.2020
		HW1051870305	180 x 2000 x 6000mm	33912	02	15.05.2020

The tender documents & Specification of item can be downloaded from our web site www.bhel.com or www.bhelhwr.co.in . **Only those vendors who fulfill the Minimum Qualifying Requirements (as per Annexure-II) will be considered for further technical evaluation.**

The last date for downloading tender documents shall be 18.02.2020 & opening of tender shall be 19.02.2020. Tenders will be received up to 01.45 P.M. on **19.02.2020** and opened on the same day at 2.00 P.M. in the Tender Room. **Please note that tender received after due date & time (01.45 PM on 19.02.2020) will not be opened.** BHEL will not be responsible for any type of postal / courier delay.

Intending vendors must remit requisite **EMD Rs. 2,00,000/-** (Rupees two lacs only) for indigenous vendors (or equivalent amount in foreign currency for **foreign vendors**) in the form of pay order or bank draft while submitting the tender documents as detailed in "Instruction to Bidders", after downloading from the web site.

EMD is waived off for-

- Central/ State – PSUs/ Government departments
- As per government guidelines, MSE suppliers are exempted for submission of EMD (Valid Documentary proof against MSE must be submitted along with offer to avail the benefits).
- The vendors registered for **Alloy Steel Plates-16MO3 (Spec: HW10570 Rev: 03)** in **PMD SL049** with BHEL, Haridwar are also exempted from EMD.

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.

IN ADDITION TO VENDORS MENTIONED ABOVE, OFFERS SHALL ONLY BE CONSIDERED OF THOSE VENDORS WHO WILL SUBMIT EMD WITH OFFER. PLEASE SUBMIT DRAFTS FOR EMD DRAWN IN FAVOUR OF BHARAT HEAVY ELECTRICALS LTD. HEEP, HARIDWAR IN ANOTHER ENVELOPE SUPERSCRIBED WITH BOLD LETTERS "EMD". OFFERS WITHOUT EMD WILL NOT BE CONSIDERED. The tender will be opened at 2 PM on the due date in the presence of authorized representative of the bidders who may like to be present. The authorized representative should bring authority letter from their parent company (Manufacturer) for attending the bid opening.

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

DEFINITION

Registered Vendors - Are those who are registered with BHEL, Haridwar for procurement of **Alloy Steel Plates (16MO3)** as per spec **HW10570 Rev: 03** in PMD SL049.

Un-registered Vendors - Are those who are Not registered with BHEL, Haridwar for procurement of **Alloy Steel Plates (16MO3)** as per spec **HW10570 Rev: 03** in PMD SL049.

Vendors must fill up Annexure– II in confirmation to 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 Requirement,
 - 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 (Submit **Annexure-X** with offer).
4. Documents submitted with the offer/bid by the bidder shall be signed and stamped in each page by authorized representative of the bidder. In case the bid is submitted by FAX, the bidder shall simultaneously ensure submission of signed and stamped (in each page) original bid to BHEL. If the documents are received in soft form, the same should be transmitted through vendor's authorized e-mail followed by the signed and stamped copy of the same documents.
 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. Currency exchange rate will be applicable on the date of opening of Part-I (Techno-commercial Bid) for evaluation purpose.
 10. **Evaluation of Bid: - The bid shall be evaluated**
 - a. **Cost to BHEL basis. (Basic Cost + Insurance + 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.**
 11. 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.

12. All test certificates / Guarantee certificates to be submitted in TRIPLICATE along with dispatch documents.
13. 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.
14. **BHEL reserves the right to go for reverse auction. Vendors are requested to give their best price. In case of failure of reverse auction the paper bid shall be processed. 'Guidelines for Reverse Auction are available at following link**
http://www.bhel.com/vender_registration/vender.php
15. Total weight--/Gross/Net in Kg & also package size essentially should be indicated if not exact then approximate.
16. 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 www.bhelhwr.co.in for General Instructions and Standard Terms & Conditions (GISTC) for Tender Enquiries for Indian & Foreign Vendor. All the bidders / vendors must ensure compliance of latest GISTC.

GISTC can also be referred by login to B2B Portal for BHEL approved Vendors.

GISTC are available in following link

<https://www.bhelhwr.co.in/bhelweb/Gistc.jsp>

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

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 Minimum 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.

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/UK Pound/SF/Singapore Dollar or any other internationally freely tradable 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. Penalty 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. In case of any variation in LD penalty, your prices shall be loaded to the extent LD penalty not accepted by you.

MARKING OF ENVELOPE:

- Each envelope is to be super scribed as TENDER FOR “Alloy Steel Plates (16MO3)” AGAINST TENDER NO. **F/F219/19/4179/K1** DUE ON **19.02.2020**.
 - Drafts for EMD to be kept in one envelop – Envelop I. On the Top of the envelope, please write Draft No., Issuing Bank Details & Amount. Those vendors who are quoting for more than one tender must submit a statement in the envelopes of all those tenders giving details of all the tenders being quoted. However, the draft of each tender should be kept in individual tender envelop.
 - Pre- Qualification Documents are to be kept in one envelope – Envelope II.
 - Techno-Commercial Bid to be kept in another envelop – Envelop-III & to be marked as Techno-Commercial Offer.
 - **Above Envelops I, II & III are to be sealed in one Envelope and marked as Part-I (Techno -Commercial Bid).**
 - **Price Bid to be kept in another envelope-IV & to be marked as Part-II (Price Bid).**

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

Tender No.	Item Description	Mat. Code	Size (mm)	Qty. (Kg)	Qty. (No)	Delivery Schedule
F/F219/19/4179/K1	Alloy Steel Plates (16MO3) Specification- HW10570 Rev 03	HW1051870100	50 x 2500 x 8000mm	7850	01	15.05.2020
		HW1051870127	60 x 2500 x 8000mm	18840	02	15.05.2020
		HW1051870208	70 x 2500 x 8000mm	65940	06	15.05.2020
		HW1051870313	80 x 2500 x 8000mm	62800	05	15.05.2020
		HW1051870186	100 x 2000 x 6000mm	9420	01	15.05.2020
		HW1051870216	120 x 2000 x 6000mm	11304	01	15.05.2020
		HW1051870275	140 x 2000 x 6000mm	13188	01	15.05.2020
		HW1051870291	160 x 2000 x 6000mm	15072	01	15.05.2020
		HW1051870305	180 x 2000 x 6000mm	33912	02	15.05.2020

Remarks-

1. The prices are to be quoted in per Kg /per MT only.
2. Quantity tolerance **±10%** is acceptable considering the required number of plates.
3. Risk purchase clause as per Annexure VIII 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.
4. Penalty for late deliveries shall be applicable @0.5% per week or part there off on the value of respective delayed supplies subject to a maximum of 10% of the value of respective delayed supplies."
5. 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.
6. For this procurement, public procurement (preference to make in India), order 2017 dated 15.06.2017, 28.05.2018 & 29.05.2019 and subsequent orders issued by the respective nodal ministry shall be applicable even if issued after issue of this nit but before finalization of contract/ PO/WO against NIT. In the event of any nodal ministry prescribing higher or lower percentage of purchase preference and/ or local content in respect of this procurement, same shall be applicable .

NOTE: THE QUANTITY INDICATED ABOVE CAN BE INCREASED/ DECREASED.

ANNEXURE-II
Minimum Qualification Requirement

➤ **Technical Requirements-**

Point numbers 1 to 5 are the **Mandatory Qualification Requirements**. Offers of vendors not meeting these requirements will not be considered.

Sl. No.	Technical Requirement					Vendor's confirmation (Y/N)
01	Vendor must be having experience of manufacturing and supplying heat resistant steel plates of grade 16MO3/ material no 1.5415 EN10028-2, ASTM A204Gr B or SB480M+N as per JIS G3103 or its equivalent of thickness ≥ 50mm, 60mm, 70mm, 80mm, 100mm, 120mm, 140mm, 160mm & 180mm. In support of this, Vendor shall furnish experience details of the supplies in last 7 years as per the following format:					
	Sl. No.	Plate Dimension (mm) (Thickness X Width X Length)	Material Grade & Standard	Name of customer/Purchase order No/Year of Supply	Quantity	
	1					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
Vendor to submit documentary evidence like test certificates covering chemical, mechanical properties, heat treatment, supply dimension details in support of experience of at least one of the PO from above experience list.						
02	Vendor to confirm that have in-house rolling and normalizing heat treatment facility to manufacture plates of enquiry dimensions (50 x 2500 x 8000mm, 60 x 2500 x 8000mm, 70 x 2500 x 8000mm, 80 x 2500 x 8000mm, 100 x 2000 x 6000mm, 120 x 2000 x 6000mm, 140 x 2000 x 6000mm, 160 x 2000 x 6000mm & 180 x 2000 x 6000mm). Details of manufacturing facilities like steel melting, rolling, heat treatment, etc. are to be provided.					
03	In case in-house steel melting facility not available, vendor to provide details of steel supplier.					
04	Vendor to confirm that they have in house testing facilities to carry out testing as per the requirements of BHEL specification HW10570. In case of outsourcing of any test, vendor to agree to carry out testing at Government accredited labs only.					
05	Vendor to confirm that they will meet all the requirements of BHEL specification HW10570 Rev. 03.					
Note: In case of trader/stockist, vendor to submit details as per points 1 - 5 above of their principal manufacturer. Offers of trader/stockist without these details will not be considered						

Sl. No.	Quality Requirement	Vendor's confirmation (Y/N)
01	Testing and certification as per ordering standard.	
Note- This is applicable for both registered as well as un-registered vendors.		

Signature with stamp

Name:

Name of Firm:

Designation:

Date:

ANNEXURE-III

(Specifications)

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																														
<table border="1"> <tr> <th>C</th> <th>Si</th> <th>Mn</th> <th>Mo</th> <th>S</th> <th>P</th> <th>Cr</th> </tr> <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> </tr> <tr> <th>Cu</th> <th>N</th> <th>Ni</th> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>≤ 0.30</td> <td>≤ 0.012</td> <td>≤ 0.30</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>			C	Si	Mn	Mo	S	P	Cr	0.12 - 0.20	≤ 0.35	0.40 - 0.90	0.25 - 0.35	≤ 0.010	≤ 0.025	≤ 0.30	Cu	N	Ni					≤ 0.30	≤ 0.012	≤ 0.30				
C	Si	Mn	Mo	S	P	Cr																								
0.12 - 0.20	≤ 0.35	0.40 - 0.90	0.25 - 0.35	≤ 0.010	≤ 0.025	≤ 0.30																								
Cu	N	Ni																												
≤ 0.30	≤ 0.012	≤ 0.30																												
The tensile and impact test shall be tested on specimen taken perpendicular to rolling direction and following properties shall be achieved at room temperature.																														
<table border="1"> <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> <tr> <td>t ≤ 16</td> <td>≥ 275</td> <td>440 - 590</td> <td rowspan="6">≥ 22</td> <td rowspan="6">≥ 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> </tr> </table>			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			
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																												
* Average of 3 Charpy V notch specimens, Minimum value ≥ 70% specified value.																														
TSX PSC QAX STE	D. GANGULI G. KRISHNAN U. K. PANDA P. K. BANSAL	नाम NAME SUBODH RANA ASHISH RANJAN GOPAL KRISHNAN																												
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	निर्माण PREPARED : MTE	जारी ISSUED : TSX दिनांक DATE : 02.12.91																												

सापेक्षी सूची संख्या INVENTORY NO. P 3126	SUPERSEDES INVENTORY NO.	सापेक्षी सूची संख्या को प्रतिस्थापित करता है	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.	स्वामित्व अधिकार एवं गोपनीय इस दस्तावेज में दी गई सूचना भारत भारती एलेक्ट्रिकल्स लिमिटेड की संपत्ति है इसका प्रयोग एवं प्रसारण के बिना या इसकी ओर प्रत्यक्ष या अप्रत्यक्ष रूप से किसी भी प्रकार से किसी भी व्यक्ति के हित में प्रतिकूल हो न सके।	सापेक्षी सूची संख्या INVENTORY NO. P 3126	संस्थान क्रय विनिर्देश (हीप : हरिद्वार) PLANT PURCHASE SPECIFICATION (HEEP: HARIDWAR)	HW10570 पृष्ठ का Page 2 of 3																												
						(b) ASTM A 204, Gr B: For thickness upto 150 mm (with additional requirements)																													
<table border="1"> <tr> <td>C</td> <td>Si</td> <td>Mn</td> <td>Mo</td> <td>S</td> <td>P</td> <td>Cr</td> </tr> <tr> <td>≤ 0.20 / ≤ 0.23*</td> <td>0.15- 0.40</td> <td>0.40 - 0.90</td> <td>0.45 - 0.60</td> <td>≤ 0.015</td> <td>≤ 0.025</td> <td>≤ 0.30</td> </tr> <tr> <td>Cu</td> <td>N</td> <td>Ni</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>≤ 0.40</td> <td>≤ 0.012</td> <td>≤ 0.40</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>							C	Si	Mn	Mo	S	P	Cr	≤ 0.20 / ≤ 0.23*	0.15- 0.40	0.40 - 0.90	0.45 - 0.60	≤ 0.015	≤ 0.025	≤ 0.30	Cu	N	Ni					≤ 0.40	≤ 0.012	≤ 0.40					
C	Si	Mn	Mo	S	P	Cr																													
≤ 0.20 / ≤ 0.23*	0.15- 0.40	0.40 - 0.90	0.45 - 0.60	≤ 0.015	≤ 0.025	≤ 0.30																													
Cu	N	Ni																																	
≤ 0.40	≤ 0.012	≤ 0.40																																	
*C: ≤ 0.23 for plates thickness > 25mm; The tensile and impact test shall be tested on specimen taken perpendicular to rolling direction and following properties shall be achieved at room temperature.																																			
<table border="1"> <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> <tr> <td>t ≤ 16</td> <td>≥ 275</td> <td rowspan="3">440 – 620</td> <td rowspan="5">≥ 21</td> <td rowspan="5">≥ 31</td> </tr> <tr> <td>16 < t ≤ 40</td> <td>≥ 270</td> </tr> <tr> <td>40 < t ≤ 60</td> <td>≥ 260</td> </tr> <tr> <td>60 < t ≤ 100</td> <td>≥ 240</td> <td>430 - 620</td> </tr> <tr> <td>100 < t ≤ 150</td> <td>≥ 220</td> <td>420 - 620</td> </tr> </table>							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 – 620	≥ 21	≥ 31	16 < t ≤ 40	≥ 270	40 < t ≤ 60	≥ 260	60 < t ≤ 100	≥ 240	430 - 620	100 < t ≤ 150	≥ 220	420 - 620									
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 – 620	≥ 21	≥ 31																															
16 < t ≤ 40	≥ 270																																		
40 < t ≤ 60	≥ 260																																		
60 < t ≤ 100	≥ 240	430 - 620																																	
100 < t ≤ 150	≥ 220	420 - 620																																	
* Average of 3 Charpy V notch specimens, Minimum value ≥ 70% specified value.																																			
(c) SB480M+N as per JIS G3103, For thickness upto 150 mm (with additional requirements)																																			
<table border="1"> <tr> <td>C</td> <td>Si</td> <td>Mn</td> <td>Mo</td> <td>S</td> <td>P</td> <td>Cr</td> </tr> <tr> <td>≤ 0.20 / ≤ 0.23*</td> <td>0.15- 0.40</td> <td>0.40 - 0.90</td> <td>0.45 - 0.60</td> <td>≤ 0.015</td> <td>≤ 0.020</td> <td>≤ 0.30</td> </tr> <tr> <td>Cu</td> <td>N</td> <td>Ni</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>≤ 0.30</td> <td>≤ 0.012</td> <td>≤ 0.30</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>							C	Si	Mn	Mo	S	P	Cr	≤ 0.20 / ≤ 0.23*	0.15- 0.40	0.40 - 0.90	0.45 - 0.60	≤ 0.015	≤ 0.020	≤ 0.30	Cu	N	Ni					≤ 0.30	≤ 0.012	≤ 0.30					
C	Si	Mn	Mo	S	P	Cr																													
≤ 0.20 / ≤ 0.23*	0.15- 0.40	0.40 - 0.90	0.45 - 0.60	≤ 0.015	≤ 0.020	≤ 0.30																													
Cu	N	Ni																																	
≤ 0.30	≤ 0.012	≤ 0.30																																	
*C: ≤ 0.23 for plates thickness > 25mm The tensile and impact test shall be tested on specimen taken perpendicular to rolling direction and following properties shall be achieved at room temperature.																																			
<table border="1"> <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> <tr> <td>t ≤ 16</td> <td>≥ 275</td> <td>440 – 620</td> <td rowspan="5">≥ 21</td> <td rowspan="5">≥ 31</td> </tr> <tr> <td>16 < t ≤ 40</td> <td>≥ 270</td> <td>440 – 620</td> </tr> <tr> <td>40 < t ≤ 60</td> <td>≥ 260</td> <td>440 – 620</td> </tr> <tr> <td>60 < t ≤ 100</td> <td>≥ 240</td> <td>430 – 620</td> </tr> <tr> <td>100 < t ≤ 150</td> <td>≥ 220</td> <td>420 - 620</td> </tr> </table>							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 – 620	≥ 21	≥ 31	16 < t ≤ 40	≥ 270	440 – 620	40 < t ≤ 60	≥ 260	440 – 620	60 < t ≤ 100	≥ 240	430 – 620	100 < t ≤ 150	≥ 220	420 - 620							
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 – 620	≥ 21	≥ 31																															
16 < t ≤ 40	≥ 270	440 – 620																																	
40 < t ≤ 60	≥ 260	440 – 620																																	
60 < t ≤ 100	≥ 240	430 – 620																																	
100 < t ≤ 150	≥ 220	420 - 620																																	
* Average of 3 Charpy V notch specimens, Minimum value ≥ 70% specified value.																																			
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.																																			
REV. NO. 03		निर्माणकर्ता WORKED BY S.RANA		19.04.2018																															
		जांचकर्ता CHECKED BY A. RANJAN		19.04.2018																															

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: - 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: - BHEL References: - Specification number, Purchase order no. - Suppliers references: Name, emblem, material designation, melt no., heat treatment batch no. Results of testing - Melting process, melt analysis - Details of Heat-treatment performed - Mechanical and impact test results - U.T. Results - Confirmation of the verification inspection				
स्वतंत्रतापूर्वक एवं गोपनीय यह प्रलेख मेरी या मेरी संस्था द्वारा जारी किया गया है और यह प्रलेख केवल मेरी या मेरी संस्था के उपयोग के लिए है। इसे अन्य किसी भी व्यक्ति या संस्था के उपयोग के लिए नहीं किया जाना चाहिए।	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.				
दिनांक एवं हस्ताक्षर SIGN & DATE 27/4/18	11.0 FREEDOM FROM DEFECTS: Plate shall be free from defects such as cracks, flacks, seams, segregation, inclusion and other defects which may affect utility of the plates. 12.0 CROSS REFERRED STANDARDS: EN 10028, EN 10029, ASTM A 204, JIS G3103, EN 10160, EN 10163, EN 10204				
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

ANNEXURE-IV

**BHEL Standard Terms & Conditions: To be confirmed and Submitted along with
Techno-Commercial offer (Bid Part-1)**

The confirmation to these terms & conditions must be submitted along with Techno-commercial bid.		
Sl. No.	Description	Your confirmation
1	Material will be supply as per Spec HW10570 Rev 03.	
2	Pl confirm that the size and quantity of each quoted item will be as per Enquiry only.	
3	Pl. confirm the quantity tolerance of +/- 10% .	
4	Validity: Confirm that validity of the offer shall be 90 days from the due date of opening of Techno-Comml. Offers.	
5	Confirm that prices have been quoted on FOR Haridwar(for Indian Bidders) or CFR/CIF Mumbai basis (For foreign bidders).	
6	Kindly Confirm the delivery period from the date of PO in days/weeks/months.	
7	Kindly confirm the standard LD clause " Penalty for late deliveries shall be applicable @0.5% per week or part there off on the value of respective delayed supplies subject to a maximum of 10% of the value of respective delayed supplies." Non acceptance of LD clause will result in loading @10% for price comparison. Also, B/L date shall be considered as delivery date for penalty purpose in case of CFR/CIF Mumbai delivery for foreign vendors.	
8	Acceptance of risk purchase clause is mandatory for all tenders as per standard policy of BHEL. Kindly confirm.	
9	Confirm to participate in Reverse Auction as BHEL reserves the right to go for RA.	
10	Pl. Confirm that the prices will remain firm during the entire validity.	
11	Signed order acceptance shall be furnished within 15 days of order placement.	
12	Kindly accept Standard BHEL Payment Term- "100% after receipt and acceptance of material at BHEL Haridwar".	
13	For Indian Bidders: Kindly provide the applicable GST rate.	
14	Test certificate to be sent with dispatch documents. Kindly confirm	
15	As per Public Procurement (Preference to Make in India), Order 2017 dated 15.06.2017, 28.05.2018 & 29.05.2019, kindly confirm whether your firm to be treated as local supplier or not. if yes kindly fill up the self-certification form (enclosed as Annexure-IX) to claim it.	
For Foreign Bidders only		
16	Shipping documents shall be forwarded to us within 7 days from the date of B/L. Kindly confirm.	
17	Shipment of plates will be made through vessel having age not more than 25 years old.	
18	Pl confirm that bank charges condition will be " Either side"	

ANNEXURE-V

General Instructions and Standard Terms & Conditions (GISTC)

For Indian Bidders

Link mentioned below

https://www.bhelhwr.co.in/bhelweb/uploads/GISTC_IND_TE_Ver_April_19_REV04.pdf

ANNEXURE-VI

General Instructions and Standard Terms & Conditions (GISTC)

For Foreign Bidders

Link mentioned below

<https://www.bhelhwr.co.in/bhelweb/uploads/GISTC IMP TE Ver April 19 REV 04.pdf>

ANNEXURE-VII

Certificate by Chartered Accountant on letter head

This is to Certify that M/s
(hereinafter referred to as 'company') having its registered office atis
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 dateas 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 RsLacs 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

ANNEXURE-VIII

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.
$$T2 = \left(1 - \frac{X}{Y}\right) \times T1$$
- 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-IX

Make in India Certificate

As per Government Public Procurement Order No. P-45021/2/2017-BE-II dt. 15.06.2017, P-45021/2/2017-PP (BE-II) dated 28.05.2018 & P-45021/2/2017-PP (BE-II) dated 25.09.2019, it is hereby certifying that we

..... (supplier name) are local supplier and will meet the requirement of minimum local content defined by Nodal Ministries/Departments as per above orders 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

ANNEXURE-X

TO
BHEL
HEEP HARIDWAR INDIA

Date:

PIN 249403

Subject; Confirmation Regarding Delivery

Tender No.: F/F219/19/4179/K1

Title: BHEL-HEEP/OPEN-TENDER (Alloy Steel Plates-16M03)

To whomsoever it may Concern

We, Principle Manufacturer and Supplier.....
would like to jointly confirm for Guarantee of quality and Timely delivery of product as per offer from
Supplier.....

For Principle Manufacturer
(Seal & Signature)

For Supplier.....
(Seal & Signature)