



**Bharat Heavy Electricals Limited**  
Industrial Valves Plant  
Goindwal Sahib (Punjab)

**Enquiry No.**  
**2526-077E**

**Date:**  
**31.12.2025**

**NOTICE INVITING TENDER (NIT)**

BHEL Goindwal Sahib (Punjab) invites offers from interested bidders / suppliers for submission of their offer through e-procurement mode at <https://eprocurebhel.co.in/>. Offers in any other mode will not be accepted. In case of any difficulty faced while registering on BHEL's e-Procurement portal developed by NIC, queries may be addressed to 0120-4001002, 0120-4001005 and 0120-6277787; email: [support-eproc@nic.in](mailto:support-eproc@nic.in). These details are also available on 'Contact Us' page of the portal.

<b>Tender enquiry no. &amp; date</b>	2526-077E dated 31.12.2025
<b>Form of contract</b>	Supply
<b>Tender / Item description</b>	Purchase of HSFG Fasteners and Plain Chamfered Washers
<b>Material standard / Drawings</b>	As per attached Specifications & Drawings
<b>Location(s) of Supply / Work (4 Projects)</b>	BHEL Trichy, Tamil Nadu
<b>Earnest Money Deposit (EMD)</b>	Not Applicable
<b>Performance Security (PS)</b>	Upto 5% of PO value, to be submitted within 21 days from the date of award of PO. (Refer Sr. no. 13 of Tender GCC)
<b>Quotation parts</b>	Two Part Bid
<b>Tender download / Bid submission start date</b>	<b>31.12.2025</b> (17:30 Hrs. IST)
<b>Tender download / Bid submission end date</b>	<b>10.01.2026</b> (12:00 Hrs. IST)
<b>Tender / Bid opening date</b>	<b>10.01.2026</b> (15:30 Hrs. IST)
<b>Validity of offer</b>	90 days from techno commercial bid opening (Part I)
<b>Quantity variation</b>	+ 2% for all the items
<b>Delivery schedule</b>	90 days from the date of Release of Purchase Order/ Letter of Intent
<b>Tender evaluation</b>	Item – Wise
<b>Reverse auction</b>	Applicable
<b>Integrity pact (IP)</b>	Not Applicable
<b>Contact person details</b>	Rajesh Kumar, Sr. Manager / MM 01859-224 618, <a href="mailto:kumarrajesh@bhel.in">kumarrajesh@bhel.in</a> Pranshu, Manager / MM 01859-224 619, <a href="mailto:pranshu@bhel.in">pranshu@bhel.in</a>



## SPECIAL TERMS AND CONDITIONS

Tender Enquiry No. 2526-077E Dated 31.12.2025 **Due date 10.01.2026**

Tender Description: Purchase of HSFG Fasteners and Plain Chamfered Washers

### S1. SCOPE OF SUPPLY

Material shall be supplied as per the applicable Technical Delivery Condition (TDC) / Specifications / Standards as mentioned in the Table – 1, at the Delivery Destination. National & International material standards shall have to be arranged by bidders themselves.

**Table 1 : List of Items along with Quantity and Delivery Destination**

Enquiry Sr. No.	Material Code	Material Description	Qty. in Nos.	MSE Reserved Items	Specification Document
1	412413022000	M30x220 HSFG BOLTS & NUTS Grade 10.9	18,160	--	TDC/5211/Rev.02
2	412413624000	M36x240 HSFG BOLTS & NUTS Grade 10.9	4,800	--	
3	412413620000	M36x200 HSFG BOLTS & NUTS Grade 10.9	152	--	
4	412420010000	HSFG BOLTS & NUTS M30X130 SSFIT-001 REV0 <b>(Hot Dip Galvanised)</b>	12,300	--	SSFIT-001 REV 0
5	412420020000	HSFG BOLTS & NUTS M30X140 SSFIT-001 REV0 <b>(Hot Dip Galvanised)</b>	1,000	--	
6	412420040000	HSFG BOLTS & NUTS M36X230 SSFIT-001 REV0 <b>(Hot Dip Galvanised)</b>	2,400	--	
7	412420050000	HSFG BOLTS & NUTS M36X240 SSFIT-001 REV0 <b>(Hot Dip Galvanised)</b>	3,600	--	
8	412420060000	HSFG BOLTS & NUTS M36X250 SSFIT-001 REV0 <b>(Hot Dip Galvanised)</b>	2,000	--	
9	412420080000	HSFG BOLTS & NUTS M36X280 SSFIT-001 REV0 <b>(Hot Dip Galvanised)</b>	2,000	--	
10	414200070000	PLAIN CHAMFERED WASHER M30 SSFIT-001 <b>(Hot Dip Galvanised)</b>	14,300	Reserved for MSE	
11	414200003600	PLAIN CHAMFERED WASHERM36 SSFIT-001 <b>(Sherardized)</b>	12,400	Reserved for MSE	In line with following requirements: 1) Table 8 of EN14399 Part 9. 2) Hardness Range 372 HV30 to 448 HV 30 (Vickers Hardness). 3) As per part 9 of euro code EN14399 the bolt face washer coating to be "sherardized" confirming to EN ISO 17668.



## SPECIAL TERMS AND CONDITIONS

Tender Enquiry No. 2526-077E Dated 31.12.2025 **Due date 10.01.2026**

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**Table 2 : Technical information for Fit bolt sizes which not available in document SSFIT-001 Rev.0 is given below:**

Bolt Size	$l_{nom.}$	b	$y_{max.}$	$l_{g\ max.}$ and $l_{s\ min.}$	Remarks
M30	140 /150	44	11.5	$l_{g\ max.} = l_{nom.} - b$	Refer Note-e, f of Table-1 of SSFIT-001 Rev.0
M36	230 / 240/ 250/ 260 / 280	52	13.0	$l_{s\ min.} = l_{g\ max.} - y_{max.}$	

**Additional Information in reference to the Table 1 and 2 above:**

- A. Delivery Destination for all the 11 items is BHEL Trichy Stores.
- B. Wherever HSFG Bolts and Nuts mentioned in the Material Description, "1 number" of Quantity = 1 Bolt + 1 Nut.
- C. For HSFG Bolts (Enq. Sr. No. 1 to 3), Rust Preventive oil is to be applied as per attached specification with document reference no. PR:CHEM:09-04 Rev 03 dated 01.04.2009.
- D. For Hot dip Galvanized SS FIT Bolts (Enq. Item Sr. No. 4 to 10), rust preventive oil is not applicable. However, if rethreading of nuts is being done after galvanising, then rust preventive oil on internal threads of nuts is required. This rust preventive oil coating to be done as per attached specification with document reference no. PR:CHEM:09-04 Rev 03 dated 01.04.2009.
- E. For Plain chamfered washers at Enq. Sr. no. 11 (sherardized Coating), rust preventive oil is not applicable.
- F. Applicable Quality Plan for all items is SQP:HSFG:001 Rev. 3 dt. 18.11.2025.
- G. Both Washers i.e. Item at Sr. no. 10 and 11, are ARE RESERVED FOR MSE MANUFACTURERS ONLY. In case, no response is received from MSE bidder(s) for these items, then procurement will be made from Non-MSE bidder(s).
- H. Minimum 50% and 20% Local Content is required for qualifying as Class 1 and Class 2 Local Supplier respectively.

### **S2.PRE-QUALIFICATION CRITERIA (PQC)**

- a) Supplier shall be manufacturer of Fasteners. Offers from Traders/Dealers/Stockists/agents will be rejected. Submission of UDYAM Certificate or Declaration from bidder is required. Also, List of Machines to be submitted in order to fulfil this criterion.
- b) Bidder should have Minimum Average Annual Financial Turnover of **Rs. 480 Lakhs** over last three Financial years viz. FY 2022-23, 2023-24 and 2024-25. To certify the same, bidder need to submit balance sheets of above stated any of the three years. Balance sheets should be audited, as applicable. The value of turnover to be considered is without Taxes. If the balance sheets are not audited, bidder



## SPECIAL TERMS AND CONDITIONS

Tender Enquiry No. 2526-077E Dated 31.12.2025 **Due date 10.01.2026**

**Tender Description:** Purchase of HSFG Fasteners and Plain Chamfered Washers

need to submit CA certificate for the turnover. **Audited balance sheets/CA certificate with valid UDIN (Unique Document Identification Number) will only be considered in order of fulfill this criterion.**

$$\text{Minimum Average Annual Financial Turnover} = \frac{\text{FY1} + \text{FY2} + \text{FY3}}{3}$$

(In above formula, if data for any of FY1, FY2 and FY3 is not provided then it shall be taken as NIL for that FY).

**Start-ups shall be exempted** from the above pre-qualification criteria, without any relaxation in quality standards or technical parameters as per D.O. No. 5(4)/2016-BE-I dated 15.02.2017. For claiming Start-Up exemption, vendors have to submit DPIIT (Dept. of Promotion of Industry and Internal Trade)/DIPP (Department for Industrial Policy and Promotion) recognition certificates). Date of issue of Start-up Exemption certificate should be on or before tender Part-1 Bid opening date.

- c) Bidder has to submit one or more purchase order/s of 'similar item' (refer Table 3 below) from any customer with minimum cumulative value of **Rs. 44 Lakhs** along with the proof of execution like Invoice / Consignee Receipt Note / Completion Certificate, from any customer(s). PO date should be 01.12.2022 or afterwards till bid opening date". PO value mentioned above is exclusive of taxes. The details of the submitted POs along with its proof of execution must be filled as per attached Annexure - P.

For quoting Fit Bolts and Nuts (Item Sr. no. 4 to 10), it is mandatory to submit atleast one PO copy of HSFG Fit Bolts or of Similar item of any value. **Also, please note that the proof of execution like Invoice / Consignee Receipt Note / Completion Certificate must include the Purchase Order reference number and date of these documents should be 01.12.2022 or afterwards till bid opening date, otherwise that PO will not be considered for the fulfilment of this tender term.**

**Table 3 : "Similar item"** has been defined as "Bolts, Nuts or Washers as per standard as below:-

S. No.	Item	Standard	Equivalent
1	Bolt	Grade 8.8 or above as per: IS-1364 (Latest) part-1; IS-1367 (Latest) part-3; IS-3757 (Latest)	EN 14399-3 (Latest) Property Class: 8.8 or above; EN ISO 898-1 for Mechanical Properties Or equivalent ISO standard
2	Nut	Grade 8 or above as per: IS-6623 (Latest) IS-1364 (Latest)	EN 14399-3 (Latest) Property Class: 8 or above; Or equivalent ISO standard
3	Washer	Grade 8 or above as per: IS-6649 (Latest)	EN 14399-5 (Latest) Or equivalent ISO standard
4	Fit Bolt	--	EN 14399-8 (Latest) Or equivalent ISO standard

Start-ups shall be exempted from this criterion of Purchase order and invoice submission without **Start-ups shall be exempted** from the above pre-qualification criteria, without any relaxation in quality



## SPECIAL TERMS AND CONDITIONS

Tender Enquiry No. 2526-077E Dated 31.12.2025 **Due date 10.01.2026**

**Tender Description:** Purchase of HSFG Fasteners and Plain Chamfered Washers

standards or technical parameters as per D.O. No. 5(4)/2016-BE-I dated 15.02.2017. For claiming Start-Up exemption, vendors have to submit DPIIT (Dept. of Promotion of Industry and Internal Trade)/DIPP (Department for Industrial Policy and Promotion) recognition certificates.)

BHEL may carry out evaluation of bidder's capability. BHEL reserves the right to accept/reject any offer based on evaluation of bidder's capability. For verification of data presented for pre-qualification bid, BHEL may decide to visit the bidder(s) works. Any fact found deviating from bids during evaluation shall make the bidder liable to be dis-qualified.

### S3. PART-I: TECHNO-COMMERCIAL BID

**Techno - Commercial Bid should contain *all the documents/confirmations as per following details:***

- a) Acceptance of Techno-Commercial terms and conditions shall be attached along with bid document. This can be attached either by signing each page of terms and conditions or a confirmation statement.

*IF THE OFFER IS NOT ACCOMPANIED WITH ACCEPTANCE OF TERMS AND CONDITIONS, IT SHALL BE CONCLUDED THAT ALL THE TERMS AND CONDITIONS ARE ACCEPTABLE AND NO CLAIM WHATSOEVER SHALL BE ENTERTAINED LATER ON.*

*IF THERE IS ANY DEVIATION IN REFERENCE TO ANY OF THE TENDER TERM, KINDLY MENTION IN PART-I TECHNO-COMMERCIAL BID ONLY. DEVIATION SPECIFIED ELSEWHERE, WILL NOT BE CONSIDERED.*

- b) MSE vendors should submit **UDYAM Registration Certificate** for availing applicable benefits for MSE vendors as per tender terms. Validity of document shall be considered as on date of Part I opening as per the latest available notification from Government.
- c) Documents as per pre-qualification terms.
- List of Machinery
  - Balance sheets / CA certificate.
- d) Duly filled Annexure - P (Details of Submitted PO and their Proof of Execution, as per above stated PQC term at Sr. no. S2. b))
- e) Duly filled Annexure - Q (Confirmations of Special terms)

### S4. DELIVERY SCHEDULE

Total Delivery Period shall be 90 days from the date of Release of Purchase Order/ Letter of Intent

In case of non-acceptance of this term, bid shall be liable for rejection.

### S5. VALIDITY OF OFFERS

The offers shall be kept valid for 90 days from the actual date of techno-commercial (Part-I) bid opening.



## SPECIAL TERMS AND CONDITIONS

Tender Enquiry No. 2526-077E Dated 31.12.2025 **Due date 10.01.2026**

Tender Description: Purchase of HSFG Fasteners and Plain Chamfered Washers

### S6. DELIVERY DESTINATION and SCOPE OF UNLOADING

*Delivery Destination for all the 11 items is BHEL Trichy Stores.*

Manager / Stores – 11  
Fossil Boilers, BHEL  
Boiler Plant Project P.O.  
Tiruchirapalli - 620 014.  
Tamilnadu, India.

Unloading of Material at BHEL Trichy Stores is in the Scope of BHEL.

### S7. PRICE BASIS

- Rates shall be quoted on rate INR per Unit basis, Exclusive of taxes & on FOR Delivery Destination Basis. Comparison shall be made on landed rate per Unit. Evaluation shall be done line item wise as per above Table -1.
- Order of enquiry item Sl. no. shall be maintained in the quotation.

### S8. REVERSE AUCTION

Reverse auction will be conducted in this tender enquiry. Guidelines for Reverse Auction is Available at the following weblink : -

<https://www.bhel.com/guidelines-reverse-auction-2024>

### S9. DIFFERENTIAL FREIGHT CLAUSE

The rates finalized against each schedule shall include cost of transporting finished products from Vendor's Works to delivery location specified in the tender.

All the consignments are normally envisaged for dispatch from Vendor's Works to specified location in the tender. However, depending upon requirement, BHEL may ask the vendor to despatch the consignments to different project sites/BHEL units or other location within India and vendor shall deliver the material at this revised destination. BHEL's decision shall be final in this regard. In such case, differential freight charges shall be deducted or paid based on applicable distance. BHEL reserves the right to change the delivery destination in already released POs on vendor or before releasing new PO.

#### **Differential Rates will be calculated as below:**

If BHEL advises to despatch material at any other location, then BHEL will calculate freight portion from vendor works to Location specified in tender (say it comes out amount 'X') and from vendor works to New location specified by BHEL (say it comes out amount 'Y'). Then differential freight cost will be calculated by subtracting both freight cost (Y-X). If it comes out to be positive, then this differential cost shall be given extra to vendor. If it comes out to be negative, then this differential amount shall be deducted from



## SPECIAL TERMS AND CONDITIONS

Tender Enquiry No. 2526-077E Dated 31.12.2025 **Due date 10.01.2026**

**Tender Description:** Purchase of HSFG Fasteners and Plain Chamfered Washers

vendor. Kindly note that this extra payment to vendor/deduction from vendor shall be amended suitable in Purchase order before despatch.

For Calculation of Transportation freight, BHEL has mentioned Rate/KM/MT in INR from anywhere to anywhere in India. For calculating total cost, this needs to be multiplied by distance in KM & weight in MT.

**Rate/KM/MT from anywhere to anywhere is mentioned below:**

Table 4

Relevant category	Freight Rate per MT per KM	Remarks
TAAA2	3.30	Anywhere to anywhere in India

Distance shall be taken in KM as shortest distance from Google map.

**Example:** Suppose one vendor is located in Ludhiana (Punjab). Distance from Ludhiana to BHEL Goindwal is approx. 110 KM & distance from Ludhiana to Talcher site is approx.1700 KM. The specified destination in tender is Talcher and the new location specified for delivery of material is Goindwal. Suppose weight of consignment is 60 MT

Then freight from Ludhiana to Goindwal (Y) comes out to be Rs.  $3.30 \times 150 \times 60 = \text{Rs. } 21,780.00$ . The freight from Ludhiana to Talcher (X) comes out to be Rs.  $3.30 \times 1900 \times 60 = 3,36,600.00$ . Now differential cost (Y-X) comes out to be Rs.  $(-)\text{3,14,820.00}$ . Hence this differential amount will be deducted from vendor.

### **S10. VENDOR REGISTRATION**

Bidders, who are not currently on registered list of BHEL IVP Goindwal Sahib, are advised to submit their application for vendor registration through online system on [www.bhel.com](http://www.bhel.com). Direct link for online supplier registration is <https://supplier.bhel.in/>. This application submission can be done separately/immediately without waiting for the tender opening.

### **S11. INSPECTION**

Bidders will submit TPI (Third party inspection) / BHEL Inspection report to BHEL IVP after inspection. Then based on Inspection report, BHEL will give dispatch clearance and then only the material shall be supplied to the respective consignee address.

BHEL will provide dispatch clearance **within 5 working days** of receipt of complete quality cleared documents. In case, BHEL is not able to provide the dispatch clearance in the above stipulated time, then the delivery date for the inspected material shall be suitably amended.

### **S12. QUANTITY VARIATION**

+ 2% Variation in the quantity is applicable for all the items.





## SPECIAL TERMS AND CONDITIONS

Tender Enquiry No. 2526-077E Dated 31.12.2025 **Due date 10.01.2026**

**Tender Description:** Purchase of HSFG Fasteners and Plain Chamfered Washers

### **S13. PACKING OF MATERIAL**

- a) Items shall be packed in Polythene lined Hessian Cloth/Bag not exceeding 25kgs and shall be put inside wooden boxes with maximum weight of 3 MT for each box & there shall be no mixing of two or more sizes in single box.
- b) Bidder shall ensure that wooden boxes are sturdy and it is able to withstand material load without any breakage/damage during transportation and loading / unloading.
- c) Wooden box shall have provision for putting nylon slings so that box can be lifted by overhead cranes.
- d) Wooden Boxes shall be sealed by minimum two numbers of M.S. strap of 19 mm width.
- e) Following information must be legibly available on each wooden box: -
  - (i) Supplier name / vendor code
  - (ii) Item description
  - (iii) Invoice no. / Date of Invoice
  - (iv) Number of Bags
  - (v) Total Quantity of item

### **S14. LOADING CRITERIA CUM COUNTER OFFER**

Loading shall be done as per following criteria subject to fulfilment of MSE clause:

Table - 5

Tender Enquiry Sr. no.	Counter offer Case	Count of Items
2 to 11	Case – I	10
1	Case – II	1

**Case - I:** For 10 Items, as shown in table – 7 above, 100% loading will be done on L1 bidder. However, in case of item Sr. no. 2 to 9, counter-offer will be given to eligible vendors, if MSE clause is not fulfilled.

**Case -II:** For 1 Item, as shown in table – 7 above, Contract will be entered with maximum two vendors for these items to meet BHEL requirements. However, number of vendors can be increased, if MSE clause is not fulfilled amongst two vendors. For this, BHEL reserves the right to give counter offer of L1 rates to other vendors, based on their ranking, except highest bidder. Loading shall be done on vendor as per below mentioned criteria, subject to acceptance of counter offered L1 rates:

Vendor	L1	L2
% Loading	60%	40%

- If L2 does not accept the counter offer for any particular any item/items, L3 vendor will be contacted and If L3 does not accept the counter offer for any particular any item/items, L4 vendor will be contacted and so on except highest (H1) vendor.
- If no vendor accepts the counter offer for any particular any item/items, entire 100% quantity shall be loaded upon L1 vendor.





## SPECIAL TERMS AND CONDITIONS

Tender Enquiry No. 2526-077E Dated 31.12.2025 **Due date 10.01.2026**

**Tender Description:** Purchase of HSFG Fasteners and Plain Chamfered Washers

Note: In case of Two qualified bidders, BHEL may give counter offer to Highest (H1) Bidder, wherever applicable.

### **S15. COMPLIANCES (Applicable for 3 Items at Sr. no. 1 to 3)**

- Bidder has to manufacture and supply the material complying all the latest applicable Notifications / Orders issued by the Bureau of Indian standards (BIS) or any Government agency.
- The Gazette notification no. CG-DL-E-18072024-255511 dt. 15.07.2024 (and its revisions till date if any) wherever applicable to items indicated in the tender shall be referred. The bidder has to confirm that material to be supplied shall in compliance to latest BIS guidelines issued and amended till date of Part – 1 opening of the tender.
- Bidder to submit valid/operate BIS License issued on or before Part-1 bid Opening. In case of non-submission of required documents/ proof, bid is liable for rejection for these items.

### **S16. DETENTION CHARGES – WHILE UNLOADING AT SITE**

The detention charges shall be payable as: -

@ Rs. 800/- for Part Loads i.e. for vehicle carrying load below 5.5 MT per vehicle per day;

@ Rs.1700/- for vehicle carrying load above 5.5 MT and below 18 MT per vehicle per day and

@ Rs. 2200/- for vehicle carrying load above 18MT per vehicle per day,

detention charges shall be on each occasion subject to detention of vehicle in plant/site beyond a period defined as given below: -

Unloading Points	Free Period in days excluding Day of entry, day of exit, Sunday and Holiday declared at respective Project Site
Stores Wards of BHEL Units	2
Sites / Other Locations	2

*[Weight of material will be considered as mentioned in Lorry Receipt generated by the Transporter or as per the Packing list/ Invoice generated by the Vendor, whichever is lower]*

Day of entry, day of exit, Sunday and Holiday declared at respective Project Site shall be exclude from total detention period.

However, in such cases Supplier will have to submit proof of entry and exit day of vehicle in the plant/port/site.

Immediately on reaching the site, vendor shall have to inform the reaching/site entry date. In case they are not allowed inside the site/works, then vendor will inform through email along with GPS data / Photographs / Videos / etc. as the proof of the vehicle reaching at site. Please note that vehicle registration number and the site gate / board / etc. must be visible on the submitted photographs/ Video / etc.

**In such cases, date on which email with GPS data / Photograph/ etc., is received at BHEL IVP Goindwal will be considered as the date of arrival of vehicle at site/Stores.** The decision of BHEL in this regard shall be final.



## SPECIAL TERMS AND CONDITIONS

Tender Enquiry No. 2526-077E Dated 31.12.2025 **Due date 10.01.2026**

**Tender Description:** Purchase of HSFG Fasteners and Plain Chamfered Washers

Total detention charges shall be limited to 50% of the basic freight. For this purpose, freight shall be calculated as per Formula given in Differential freight clause (S18 of tender terms). An approval from BHEL shall be obtained for payment of detention charges more than 50% of the basic freight in exceptional cases.

For example, if the vehicle reached at site for unloading and made IN entry on 01.04.2024, the free period (2 days as per above table) will be available up to 03.04.2024. However, if the EXIT entry of the vehicle is made on 06.04.2024, then detention will be calculated excluding 06.04.2024 and free period (2 days) and two days will be eligible for detention.

### **S17. GRIEVANCE REDRESSAL MECHANISM**

To promote transparency and ensure fair treatment of all bidders, a structured Grievance Redressal Mechanism is in place to address any concerns or issues arising during the tendering process or in subsequent business dealings with the company.

Suppliers/Contractors are requested to follow the below escalation process for grievance resolution:

1. **First Level:** Any grievance should initially be addressed to the designated Dealing Officer, whose contact details are provided in the Notice Inviting Tender (NIT)/Contract.
2. **Second Level:** If the issue remains unresolved, it may be escalated by lodging a formal grievance through the SUVIDHA Portal: <https://suvidha.bhel.in/suvidha/>. Responses will be provided in accordance with the defined escalation matrix.

### **S18. KEY POINTS FOR SUPPLY INVOICES IN SUVIDHA FOR SUPPLIER**

SUVIDHA Portal (<https://suvidha.bhel.in/suvidha/>)

1. Registration of all supply / works / service invoices, irrespective of the invoice amount, is mandatory in SUVIDHA.
2. For net invoice amount exceeding ₹5 lakhs (including taxes):
  - Upload of Class 3 Digitally Signed Tax Invoice is mandatory.
  - All other documents as per the PO checklist must also be uploaded.
  - However, if any other digitally signed document is specified in the PO checklist, then Class 3 Digitally Signed document is mandatory for uploading
3. For net invoice amount up to ₹5 lakhs (including taxes):
  - Upload of all documents as per the PO checklist is mandatory.
  - All Documents can be uploaded without a digital signature.
  - However, if a digitally signed document is specified in the PO checklist but a non-digitally signed version is uploaded, the hard copy must be submitted.

**These Special terms & conditions and General Contract Conditions (GCC) collectively are the part of tender terms and conditions.**



## General Conditions of Contract (GCC) of MM Tenders

**BHARAT HEAVY ELECTRICALS LIMITED**

Industrial Valve Plant: 433, Industrial Complex,  
Goindwal Sahib, Dist. Tarn Taran,  
Punjab-143422 (INDIA)

### **TABLE OF CONTENTS**

1. Instruction to Bidder .....	2
2. Scope of Supply .....	2
3. Price Basis.....	3
4. Taxes & Duties .....	3
5. Evaluation in Case of More Than One L-1 Bidder.....	4
6. Inspection.....	4
7. Delivery Schedule.....	5
8. Reverse Auction.....	5
9. Payment Terms .....	5
10. Supplied Material Adjustment.....	6
11. Treatment of cases regarding Conflict of Interest .....	6
12. Validity of Offers.....	7
13. Performance Security (PS).....	7
14. Breach of contract, Remedies and Termination.....	8
15. Acceptance of Material Supplied.....	8
16. Warrantee and Corresponding Repair / Replacement of Goods.....	9
17. Preferences for Micro and Small Enterprises (MSEs).....	10
18. Liquidated Damage (LD).....	10
19. Liability Under Reverse Charge (RCM).....	11
20. Preference to Make in India.....	11
21. Resolution of Disputes.....	11
22. Access to Manufacturing Premises.....	13
23. Force Majeure .....	13
24. Non-Disclosure Agreement .....	13
25. Preventive Checks to Eliminate Suspected Cartel Formation .....	14
26. Fraud Prevention Policy.....	14
27. Suspension of Business Dealings with Suppliers / Contractors .....	14
28. Discrepancy in Words and Figures .....	15
29. LOI (Letter of Intent) .....	15
30. Sub-Contract.....	15
31. Clarifications.....	16
32. Restrictions Under Rule 144(XI) of The General Financial Rules (GFR), 2017 .....	16
33. General.....	17
34. Treatment in Case of Dealer Acceptance .....	19
35. Enclosure .....	19

Signature Not Verified

AMAN SHARMA





## General Conditions of Contract (GCC) of MM Tenders

**BHARAT HEAVY ELECTRICALS LIMITED**

Industrial Valve Plant: 433, Industrial Complex,  
Goindwal Sahib, Dist. Tarn Taran,  
Punjab-143422 (INDIA)

### 1. Instruction to Bidder

Quotations shall be submitted before due date and time. Late offers are liable to be rejected, so please ensure to submit bid well within due date and time. Techno-commercial part will be opened on due date.

**Based on evaluation of techno-commercial offers, Price bids of bidders who qualify from techno-commercial evaluation shall be opened. BHEL may decide to open the Price bid same day at 1700 hrs. If not opened on the same day, all qualifying bidders shall be notified for date of opening of Price bids by email/fax/post/courier/E-procurement system generated email.**

#### 1.1 Instruction to Bidder (In case of Non-E-Procurement / Paper/ Manual/ Hard Copy based tenders)

Sealed Tenders can be dropped in the tender box labeled as 'Tender box for MM contracts.' This tender box is located at the entrance of Admin block BHEL Goindwal. Quotations can also be submitted through e-mail at **tendermm\_ivp@bhel.in**. Offers received in time shall be considered only when offers are complete in all respects. In case of bulky tenders, please handover quotation to tender issuing authority [Contact: 01859 224 615/ 618]. Bid can be sent to following address:

**BHEL, Industrial Valve Plant,  
#433, Industrial Complex,  
Goindwal Sahib, Distt. Tarn Taran,  
Punjab-143422.**

#### 1.2 Instruction to bidder (In case of E-Procurement)

1. Interested bidders / suppliers shall submit their offer through e-procurement mode at <https://eprocurebhel.co.in/>.
2. **Offers in any other mode will not be accepted.**
3. Procedure for submission of tender is available in the "Bidder Manual Kit" at e-tender portal <https://eprocurebhel.co.in/>.
4. In case of any difficulty faced while registering on BHEL's e-Procurement portal developed by NIC, queries may be addressed to 0120-4001002, 0120-4001005 and 0120-6277787; email: [support-eproc@nic.in](mailto:support-eproc@nic.in). These details are also available on 'Contact Us' page of the portal.
5. Before uploading scanned documents if any, the bidders shall sign on all the statements, documents, certificates uploaded by him, owning responsibility for their correctness / authenticity.
6. **Disclaimer clause:** Neither the Organization (Bharat Heavy Electricals Ltd.) nor the service provider is responsible for any failure of submission of bids due to failure of internet or other connectivity problems or reasons thereof.

### 2. Scope of Supply

Material shall be supplied as per the applicable latest Technical Delivery Conditions (TDC)/ Material Standard requirements/BPS/Drawing and other requirement as given in the Tender Enquiry. National & International material Standards shall have to be arranged by vendors themselves. Latest applicable revisions of standards/procedures to be referred.

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## General Conditions of Contract (GCC) of MM Tenders

**BHARAT HEAVY ELECTRICALS LIMITED**

Industrial Valve Plant: 433, Industrial Complex,  
Goindwal Sahib, Dist. Tarn Taran,  
Punjab-143422 (INDIA)

All required tests as called in referred material standard/BHEL/TDC/drawing etc. shall be carried out by vendor at no extra cost. Material Test Certificates (MTC), inspection reports and Compliance/Guarantee Certificate are to be provided along with the supplies.

### 3. Price Basis

1. Order of enquiry item sl. no. shall be maintained in the quotation.
2. The rates quoted shall be firm and fixed. No price variation is proposed and allowed.
3. Rates quoted should be FOR BHEL Goindwal basis. The offers quoted on other than FOR Goindwal basis are liable to be rejected.

In case bidder has quoted Ex-works prices, then he/she will be given an opportunity to accept price basis as FOR Goindwal either by accepting delivery as FOR Goindwal in same quoted price or by providing loading factor on his/her quoted ex-works prices to make them FOR prices.

**Variation in GST or any other statutory levies during contractual delivery period shall be to BHEL's account.**

### 4. Taxes & Duties

Payment of GST portion will be released to vendor only upon completion of statutory requirement and further subject to following:

- a) Vendor declaring such invoice in his GSTR-1 and
- b) Receipt of goods and Tax invoice by BHEL and
- c) Confirmation of payment of GST thereon by vendor on GSTN portal.
- d) Above is subject to receipt of goods/service and tax invoice thereof along with vendor declaring invoice in his return and paying GST within timeline prescribed for availing ITC by BHEL.

Following may please be noted for availing Input Tax Credit (ITC) by BHEL:

1. Since ITC can be availed only when BHEL is in possession of GST Tax invoice and after receipt of goods. Thus, vendor to ensure timely dispatch of goods and Tax invoice. It may be noted that in case of any delay in receipt of Tax Invoice and/or receipt of goods, the ITC availment by BHEL will get delayed thus entailing additional cash outflow & may even get denied if ITC availment timelines are breached.
2. Further ITC can be availed only when vendor has declared such invoice in his outward supply Return GSTR-1 and after GST thereon has been paid by him at the time of filing of monthly Return.
3. If GST credit is delayed/denied to BHEL due to non/delayed receipt of goods and/or tax invoice or expiry of timeline prescribed in GST law for availing such ITC, or any other reasons not attributable to BHEL, GST amount shall be recoverable from vendor along with interest levied/leviable on BHEL.
4. Further, in case vendor delays declaring such invoice in his return and GST credit availed by BHEL is denied or reversed subsequently as per GST law, GST amount paid by BHEL towards such ITC reversal as per GST law shall be recoverable from vendor/contractor along with interest levied/leviable on BHEL.

#### GST Law Provision in 'Bill to Ship to' Case

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## General Conditions of Contract (GCC) of MM Tenders

**BHARAT HEAVY ELECTRICALS LIMITED**

Industrial Valve Plant: 433, Industrial Complex,  
Goindwal Sahib, Dist. Tarn Taran,  
Punjab-143422 (INDIA)

In case where delivery destination is other than BHEL IVP Goindwal, then the following clause is also applicable: -

As per the extant provisions of Sec. 12(2), read with Sec. 31(1) of CGST Act, 2017, the time limit to raise GST invoice is till the time of removal of goods (where the supply involves movement of goods).

Accordingly, it has been reiterated that customer (BHEL's Customer) billing is also to be done by BHEL at the time of vendor's billing on BHEL on removal of goods from vendor's works and GST liability is to be discharged thereof.

Hence, Vendor is required to inform BHEL at the time of billing/removal of goods. In the case where BHEL is get penalized by GST authority, due to delay in generating the invoice and the core reason for this delay is attributable to supplier, then the penalty imposed on BHEL by GST authorities will be pass on to supplier and deduction will be done from the pending dues of supplier with BHEL.

### 5. Evaluation in Case of More Than One L-1 Bidder

In the course of evaluation, if more than one bidder happens to occupy L1 status, effective L1 will be decided by soliciting discounts from the respective L1 bidders.

In case more than one bidder happens to occupy the L1 status even after soliciting discounts, the L1 bidder shall be decided by a toss / draw of lots, in the presence of the respective L1 bidder(s) or their representative(s).

Ranking will be done accordingly. BHEL's decision in such situations shall be final and binding.

### 6. Inspection

1. The seller shall give adequate notice, of 1 week or as mutually agreed period, in writing to the Purchaser about the date and place at which the goods will be ready for inspection/ testing, as provided for in the contract.
2. Purchaser or his authorized representative shall be entitled to carry out inspection of material and workmanship/Surveillance Audit at Seller's premises or at his sub-contractor's premises at all reasonable times during execution of contract; Such inspection, examination and testing, if made, shall not absolve the Seller from his obligations under the contract. No additional charges shall be claimed for such inspections. Moreover, all required infrastructure (testing, tools etc) have to be arranged by supplier.
3. Any inspection carried out before supply by vendor/incoming stage at BHEL notwithstanding, if any defect/non-conformity is noted during processing, the same shall be attended/replaced by vendor at no extra cost.
4. BHEL representative from unit or CQ is authorized to carry out audits along with TPIA at vendor's works before clearing the items for dispatch.
5. Necessary tooling including thread gauges etc. have to be arranged by vendor. Only in exceptional cases, based on BHEL discretions item/nature, BHEL may consider request to provide gauges if available with BHEL. But in no case this shall be linked with delivery of material.
6. In case of following points, visit charges to be paid to Third Party Inspection Agency (TPIA) shall be imposed as penalty on Supplier:

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AMAN SHARMA







## General Conditions of Contract (GCC) of MM Tenders

### BHARAT HEAVY ELECTRICALS LIMITED

Industrial Valve Plant: 433, Industrial Complex,  
Goindwal Sahib, Dist. Tarn Taran,  
Punjab-143422 (INDIA)

- a) Nothing/NIL material is offered during Inspection (whilst physical visit of Inspection Engineer at Supplier's work) with respect to "Offered Quantity" mentioned in raised Inspection Call.
- b) Lapses on the account of supplier has led to rejection of offered material (as per approved QAP/ Technical Specifications/ Other pertinent requirement), while carrying out Inspection.
- c) Less Quantity/ Short Quantity is offered during Inspection (whilst physical visit of Inspection Engineer at Supplier's work) with respect to "Offered Quantity" mentioned in raised Inspection Call for any of the line(s) item, leading to re-visit of Inspection Engineer.

## 7. Delivery Schedule

Supplies shall be affected and completed as per schedule mentioned in special terms and conditions. Commencement of delivery period shall be reckoned from the date of PO / LOI or any other agreed milestone.

In case of non-acceptance of delivery schedule, supplier bid is liable to be rejected.

## 8. Reverse Auction

In case, it is declared in special terms & conditions of tender enquiry that RA is applicable for the NIT, then RA will be conducted as per following clause:

BHEL shall be resorting to Reverse Auction (RA) (Guidelines as available on <https://www.bhel.com/>) for this tender. RA shall be conducted among the techno-commercially qualified bidders as per RA guidelines.

Price bids of all techno-commercially qualified bidders shall be opened and same shall be considered for RA. In case any bidder(s) do(es) not participate in online Reverse Auction, their sealed envelope price bid along with applicable loading, if any, shall be considered for ranking.

## 9. Payment Terms

1. Payments shall be made to the Seller (MSE / Non MSE) within the mentioned days (as per below table) from the Payment Due date. Vehicle entry date at BHEL Units / Sites / other delivery destinations as mentioned on Lorry Receipt (LR) copy shall be taken as Payment due date.

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

In case there is shortfall in documents/deficiency in material as per the tender terms/purchase orders, the same shall be notified by BHEL to supplier. Payment due date shall be revised accordingly considering submission of all documents/removal of deficiency by supplier.

For availing MSE benefits, latest copy of Udyam certificate shall be submitted.

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## General Conditions of Contract (GCC) of MM Tenders

**BHARAT HEAVY ELECTRICALS LIMITED**

Industrial Valve Plant: 433, Industrial Complex,  
Goindwal Sahib, Dist. Tarn Taran,  
Punjab-143422 (INDIA)

### **MSME bidders can avail benefits of payment through TReDS (Trade Receivable e Discounting System).**

In case of any deviation from standard payment term mentioned above, BHEL shall load on the item price at "Base rate of SBI (as applicable on the date of bid opening; Techno-commercial bid opening) + 6% for the period of relaxation sought by bidders.

#### **2. Documents to be submitted (if applicable)**

- i) Tax invoice (Invoice shall be GST compliant and should contains all the required information such as GST No, HSN code etc.)
- ii) Transporter copy along with material/consignment. In case material is delivered at location other than BHEL Goindwal, then LR receipt/acknowledgement is required.
- iii) Material Test Certificates (MTC) and
- iv) Compliance Certificate.

Any additional document required shall be mentioned in special terms & conditions.

#### **3. GST registration number is to be submitted by qualified vendor as per GST law.**

#### **4. It is mandatory to mention proper material codes in the invoices and separate invoices to be raised for different POs.**

#### **5. BHEL releases payment through EFT mode ONLY. Necessary details may please be submitted by filling required format before release of payment.**

### **10. Supplied Material Adjustment**

Item/s pending in previous PO has to be billed in previous PO only. Otherwise, BHEL will be free to adjust the supplies in previous PO. Any implication of tax will be on supplier's account. For this it is desirable that vendor should reconcile the pending PO statement every month/frequently with BHEL. Vendor can also view these details at Portal (<https://trichy.bhel.com/mm/index.jsp>).

### **11. Treatment of cases regarding Conflict of Interest**

The bidder notes that a conflict of interest would said to have occurred in the tender process and execution of the resultant contract, in case of any of the following situations:

- i) If its personnel have a close personal, financial, or business relationship with any personnel of BHEL who are directly or indirectly related to the procurement or execution process of the contract, which can affect the decision of BHEL directly or indirectly;
- ii) The bidder (or his allied firm) provided services for the need assessment/ procurement planning of the Tender process in which it is participating;
- iii) Procurement of goods directly from the manufacturers/ suppliers shall be preferred. However, if the OEM/ Principal insists on engaging the services of an agent, such agent shall not be allowed to represent more than one manufacturer/ supplier in the same tender. Moreover, either the agent could bid on behalf of the manufacturer/ supplier or the manufacturer/ supplier could bid directly but not both. In case bids are received from both the manufacturer/ supplier and the agent, bid received from the agent shall be ignored. However, this shall not debar more than one Authorized distributor (with/ or without the OEM). from quoting equipment manufactured by an Original Equipment Manufacturer (OEM) in procurements under a Proprietary Article Certificate.

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## General Conditions of Contract (GCC) of MM Tenders

**BHARAT HEAVY ELECTRICALS LIMITED**

Industrial Valve Plant: 433, Industrial Complex,  
Goindwal Sahib, Dist. Tarn Taran,  
Punjab-143422 (INDIA)

- iv) A bidder participates in more than one bid in this tender process. Participation in any capacity by a Bidder (including the participation of a Bidder as a partner/ JV member or sub-contractor in another bid or vice-versa) in more than one bid shall result in the disqualification of all bids in which he is a party. However, this does not limit the participation of an entity as a sub-contractor in more than one bid if he is not bidding independently in his own name or as a member of a JV.

The Bidder declares that they have read and understood the above aspects, and the bidder confirms that such conflict of interest does not exist and undertakes that they will not enter into any illegal or undisclosed agreement or understanding, whether formal or informal with other Bidder(s), in this regard. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process. In case, the Bidder is found having indulged in above activities, the same will be considered as a violation of the tender conditions, and suitable action shall be taken by BHEL as per extant policies/ guidelines.

It has to be signed by the authorized signatory of the bidder.

### 12. Validity of Offers

The offers shall be kept open for acceptance 'for number of days mentioned in special terms and conditions' from the date of opening of the tender. In case of tender extension, the bid validity shall be considered from the date of tender opening.

### 13. Performance Security (PS)

Applicability:

- 1) Performance Security will not be applicable in which total PO value on vendor in one tender enquiry is less than or equal to Rs. twenty lakhs.
- 2) **(a) In case total PO value on vendor in one tender enquiry is greater than Rs. 20 Lakhs:** Successful bidder (L1 or counter-offer accepted) has to submit Performance Security (PS) @5% of PO value within 21 days from the date of award of PO. PS shall be valid for a period of one year. This PS will be released to the vendor without interest after two months of completion of all supplies under the PO.

**(b) In case total PO value on vendor is equal to or greater than Rs. 2 crores, then before** the release of this PS as mentioned in clause 2 (a) above, vendor has to submit another PS of Rs. one lakh after two months of completion of all supplies under the PO. This PS shall be valid for a period of 18 months. This additional PS will be released to the vendor without interest after expiry of validity upon fulfilment of contractual obligations as per terms of contract

Vendor has to submit written request to BHEL for refund of PS well in advance before the due date. Further release of PS as mentioned in 2 (a) will also be subject to submission of additional PS as mentioned in 2 (b) above if applicable.

In case of non-submission of PS for 5% of contract value, it will amount to breach of contract.

**Mode of deposit:**

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## General Conditions of Contract (GCC) of MM Tenders

### BHARAT HEAVY ELECTRICALS LIMITED

Industrial Valve Plant: 433, Industrial Complex,  
Goindwal Sahib, Dist. Tarn Taran,  
Punjab-143422 (INDIA)

Performance security may be furnished in the following forms:

- 1) Local cheques of Scheduled Banks (subject to realization)/ Pay Order/ Demand Draft/ Electronic Fund Transfer in favour of BHEL.

#### Account details:

Bank Name	STATE BANK OF INDIA
BRANCH	GOINDWAL SAHIB
A/C NO	40179740806
IFSC CODE	SBIN0010743

- 2) Bank Guarantee from Scheduled Banks / Public Financial Institutions as defined in the Companies Act. The Bank Guarantee format should have the approval of BHEL.
- 3) Fixed Deposit Receipt issued by Scheduled Banks / Public Financial Institutions as defined in the Companies Act (FDR should be in the name of the Contractor, a/c BHEL).
- 4) Securities available from Indian Post offices such as National Savings Certificates, Kisan Vikas Patras etc. (held in the name of Contractor furnishing the security and duly endorsed/ hypothecated/ pledged, as applicable, in favour of BHEL).
- 5) Insurance Surety Bond.
- 6) By way of retention from dues available in the form of Bills payable to the supplier against same / other contracts in the same unit.

(Note: BHEL will not be liable or responsible in any manner for the collection of interest or renewal of the documents or in any other matter connected therewith).

#### Forfeiture of Performance Security:

The performance security will be forfeited and credited to BHEL's account in the event of a breach of contract by the supplier.

### 14. Breach of contract, Remedies and Termination

In case of breach of contract, wherever the value of security instruments like performance bank guarantee available with BHEL against the said contract is 10% of the contract value or more, such security instruments to the extent of 10% contract value will be encashed. In case the value of the security instruments available is less than 10% of the contract value, the balance amount be recovered in all or any of the following manners:

- from dues available in the form of Bills payable to defaulted supplier against the same contract.
- from the dues payable to defaulted supplier against other contracts in the same Region/Unit /any other region/unit.
- In-case recoveries are not possible with any of the above available options, Legal action shall be initiated for recovery against defaulted supplier.

Further, levy of liquidated damages, debarment, termination, de-scoping, short-closure, etc., shall be applied as per provisions of the contract.

### 15. Acceptance of Material Supplied

1. The supply shall strictly as per the specifications in the tender /purchase order.

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AMAN SHARMA





## General Conditions of Contract (GCC) of MM Tenders

### BHARAT HEAVY ELECTRICALS LIMITED

Industrial Valve Plant: 433, Industrial Complex,  
Goindwal Sahib, Dist. Tarn Taran,  
Punjab-143422 (INDIA)

2. Delivery of the ordered items as per the delivery terms in the Purchase Order does not automatically constitute acceptance of the delivered items.
3. Acceptance of the materials supplied will be based on the inspection and certification documents by the supplier as stipulated in the Purchase order. However, BHEL reserves the right to test the material supplied, if required, at BHEL Lab or any other approved/accredited lab and the result will be binding on the supplier.
4. The acceptance or otherwise of the delivered items will be separately communicated to the supplier by BHEL through B2B portal within 15 days from the delivery of items or delivery of the required test certificates /other documents whichever is later.
5. In case of rejection of the delivered items, either part or full, the vendor shall replace the rejected items as per the specification in the Purchase order/tender at their cost within 30 days of communication of rejection to the supplier. The supplier shall be given maximum two opportunities to replace the rejected items.
6. After the clearance of the 1st lot, in case of rejection of the delivered items, either part or full, if the supplier fails to replace the rejected items within 30 days of communication of the rejection, the same shall be treated as failure to execute the contract and actions as per the Guidelines for Suspension of Business Dealings with Suppliers /Contractors available in the webpage: <https://www.bhel.com> would be taken against such supplier.

#### 16. Warrantee and Corresponding Repair / Replacement of Goods

Goods shall comply with the specifications for material, workmanship and performance. Unless otherwise specified, vendor shall give a warrantee against design & manufacturing defects for a period of 18 months from the date of receipt. In case of non-acceptance of this term, bid shall be liable for rejection.

If the delivery is found non-compliant during the warranty period, leading to rejection, the Seller shall arrange free replacement / repair of goods, within one month from the date of intimation. Corresponding quantity shall be treated as unsupplied against respective purchase order till replacement is received at BHEL. In the event of the Seller's failure to comply, Purchaser may take action as appropriate, including repair / replenish rejected goods, at the cost of the seller as per contractual obligations.

All incidental charges like freight, insurance and customs duty in respect of return of defective items are to vendor's account only. BHEL will inform related invoice, quantity etc. to supplier. Supplier has to give advance intimation / plan (Transporter, Vehicle details) for the lifting of material. Further supplier has to provide requisite documents (such as Credit Note, e-Way Bill etc.) to lift the rejected material. Material should be lifted within one month from date of intimation. After one-month, BHEL will not be responsible for rejected material and BHEL shall have the right to dispose off such rejected material.

The defective parts and components shall be collected by your Indian agent or / authorized person, only after completing the replacement / repairs. If the supplier fails to replace / rectify the defective/ damaged items on free of cost within one month of reporting from our end, the same shall be treated as failure to execute the contract and actions as per the Guidelines for Suspension of Business Dealings with Suppliers /Contractors available in the webpage: <https://www.bhel.com> would be taken against such

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## General Conditions of Contract (GCC) of MM Tenders

**BHARAT HEAVY ELECTRICALS LIMITED**

Industrial Valve Plant: 433, Industrial Complex,  
Goindwal Sahib, Dist. Tarn Taran,  
Punjab-143422 (INDIA)

supplier without prejudice to the other remedies available to BHEL under the contract and law in this regard.

### 17. Preferences for Micro and Small Enterprises (MSEs)

Preferences as mentioned in “Public Procurement Policy for Micro and Small Enterprises (MSEs) Order, 2012” & “Public Procurement Policy for Micro and Small Enterprises (MSEs) Amendment Order, 2018”, or as per latest guidelines issued by government shall be given to Micro and Small enterprises.

Main points which are mentioned in the above orders are as follows:

- 25% Procurement of the tender value shall be made from MSE (Micro, Small Enterprises) firms.
- 25% of the 25% quantity (i.e. 6.25% of the tender quantity) offered to the MSE's shall be reserved for MSE's owned by SC/STs. Failure to participate by any MSE owned by SC/ST's; this 6.25% quantity shall be procured from other MSEs.
- 3% from within the 25% quantity offered to the MSE's shall be reserved for women owned MSE's. Failure to participate by any MSE owned by women; this 3% quantity shall be procured from other MSEs.
- EMD shall be exempted for MSE's. All these benefits are subject to production of all statutory documents
- In tender, participating Micro and Small Enterprises quoting price within price band of L1+15 per cent shall also be allowed to supply a portion of requirement by bringing down their price to L1 price in a situation where L1 price is from someone other than a Micro and Small Enterprise and such Micro and Small Enterprise shall be allowed to supply up to 25 per cent of total tendered value. In case of more than one such Micro and Small Enterprise, the supply shall be shared proportionately (to tendered quantity).

MSE suppliers can avail the intended benefits only if they submit **Udyam Registration Certificate** along with the offer. No other document shall be considered for availing MSE benefits. Non-submission of such document will lead to consideration of their bid at par with other bidders. No benefit shall be applicable for this enquiry if any deficiency in the above required documents is not cleared before price bid opening. If the tender is to be submitted through e-procurement portal, then the above required document is to be uploaded on the portal.

*Note: It may however be noted that MSE guidelines as on date (Date of Technical Bid Opening Part-1) shall prevail.*

### 18. Liquidated Damage (LD)

1. Time is the essence of the contract.
2. The ordered items shall be delivered as per the delivery period mentioned in the Purchase Order.
3. In case the supplier supplies the ordered items beyond the delivery period specified, Liquidated Damages -LD - as detailed below shall be levied from the supplier without prejudice to any other relief /compensation available to BHEL, Punjab under any other condition of the contract/applicable legal provisions.

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AMAN SHARMA





## General Conditions of Contract (GCC) of MM Tenders

**BHARAT HEAVY ELECTRICALS LIMITED**

Industrial Valve Plant: 433, Industrial Complex,  
Goindwal Sahib, Dist. Tarn Taran,  
Punjab-143422 (INDIA)

4. Failure to dispatch the materials in the time as per the delivery mentioned in our Purchase Order (PO) would make the supplier liable to an un-conditional LD at the rate of 0.5% of the undelivered order value per week of the delay or part thereof subject to a maximum of 10% of the undelivered order value.
5. Indigenous: In case of Ex-works delivery terms, the document date (Invoice/Challan date) in Goods Receipt (GR) document shall be reckoned for LD deduction. In case of FOR Delivery terms, Vehicle entry date at BHEL Units / Sites / other delivery destinations as mentioned on Lorry Receipt (LR) copy shall be taken as basis for LD calculations.
6. Import: For CFR terms, BL date will be considered for LD calculation.

BHEL reserves the right to receive or not receive the material after the due date of PO. Applicable GST shall also be recovered from suppliers/contractors on LD amount. For this Debit note will be issued by BHEL indicating the respective supply invoice number.

### 19. Liability Under Reverse Charge (RCM)

Any GST liability arising on BHEL under Reverse Charge (RCM) before actual receipt of goods and/ or Invoice thereof would be subject to recovery of Interest leviable for the period between the date of such liability and actual date of eligibility of ITC based on receipt of goods, receipt of Invoices and other conditions specified in GST Law as applicable.

### 20. Preference to Make in India

This procurement shall be governed by notification no. P-45021/2/2017-PP (BE-II) dated 16.09.2020 of Government of India issued by DPIIT and subsequent circulars issued afterwards. Accordingly, the minimum local content, the margin of purchase preference and the procedure for purchase preference to make in India shall be adhered.

### 21. Resolution of Disputes

The Parties agree that if at any time (whether before, during or after the arbitral or judicial proceedings), any Disputes (which term shall mean and include any dispute, difference, question or disagreement arising in connection with construction, meaning, operation, effect, interpretation or breach of the contract/tender which the Parties are unable to settle mutually), arise inter-se the Parties, the same may, be referred by either party to Conciliation to be conducted through Independent Experts Committee to be appointed by competent authority of BHEL from the BHEL Panel of Conciliators.

Notes:

1. No serving or a retired employee of BHEL/Administrative Ministry of BHEL shall be included in the BHEL Panel of Conciliators.
2. Any other person(s) can be appointed as Conciliator(s) who is/are mutually agreeable to both the parties from outside the BHEL Panel of Conciliators.

The proceedings of Conciliation shall broadly be governed by Part-III of the Arbitration and Conciliation Act 1996 or any statutory modification thereof and as provided in Annexure-X to this GCC.

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## General Conditions of Contract (GCC) of MM Tenders

**BHARAT HEAVY ELECTRICALS LIMITED**

Industrial Valve Plant: 433, Industrial Complex,  
Goindwal Sahib, Dist. Tarn Taran,  
Punjab-143422 (INDIA)

The Annexure-X together with its appendices will be treated as if the same is part and parcel hereof and shall be as effectual as if set out herein in this GCC.

Except as provided elsewhere in this Contract, in case amicable settlement is not reached between the parties, in respect of any dispute or difference; arising out of the formation, breach, termination, validity or execution of the Contract; or, the respective rights and liabilities of the Parties; or, in relation to interpretation of any provision of the Contract; or, in any manner touching upon the Contract, then, either Party may, by a notice in writing to other Party, refer such dispute or difference to sole arbitration of an arbitrator appointed as per the Arbitration and Conciliation Act, 1996 (India) or statutory modification or re-enactment thereof and the rules made thereunder and for the time being in force.

The Arbitrator shall pass a reasoned award and the award of the Arbitrator shall be final and binding upon the parties.

This contract shall be governed, construed and interpreted in accordance with the laws of India.

Subject as aforesaid, the provisions of Arbitration & Conciliation Act 1996 (India) or statutory modification or re-enactment thereof and the rules made thereunder and for the time being in force shall apply to the arbitration proceeding under this clause.

The seat of arbitration shall be Tarn Taran, Punjab, India.

The cost of arbitration shall be borne as per the award of the Arbitrator.

Subject to arbitration in terms of clause above, the Courts at Tarn Taran, Punjab, India shall have exclusive jurisdiction over any matter arising out of or in connection with this Contract.

Notwithstanding the existence or any dispute or difference and/or reference for the arbitration, the vendor/contractor shall proceed with and continue without hindrance the performance of its obligation under this Contract with due diligence and expedition in a professional manner except where the Contract has been terminated by either Party in terms of this Contract.

### **In Case of Contract with Public Sector Enterprise (PSE) or a Government Department, the following shall be applicable:**

In the event of any dispute or difference relating to the interpretation and application of the provisions of commercial contract(s) between Central Public Sector Enterprises (CPSEs)/Port Trusts inter se and also between CPSEs and Government Departments/Organizations (Excluding disputes concerning Railways, Income Tax, Customs & Excise Departments, such dispute or difference shall be taken up by either party for its resolution through AMRCD as mentioned in DPE OM No.05/003/2019-FTS-10937 dated 14<sup>th</sup> December, 2022 and the decision of AMRCD on the said dispute will be binding on both the parties.”

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## General Conditions of Contract (GCC) of MM Tenders

### BHARAT HEAVY ELECTRICALS LIMITED

Industrial Valve Plant: 433, Industrial Complex,  
Goindwal Sahib, Dist. Tarn Taran,  
Punjab-143422 (INDIA)

Set off : BHEL shall have the right to recover any money which in the sole opinion of BHEL is due from the supplier from any money due to the supplier under this Contract or any other contract or from the Security Deposit/BG furnished by the supplier under this Contract or any other contract.

## 22. Access to Manufacturing Premises

While Purchase Orders placed on the vendor are under execution, authorized representatives of BHEL shall be allowed free access to the manufacturing facilities for the purpose of inspection or monitoring the progress of purchase orders. This access will also be extended to representatives of BHEL's customers accompanying the authorized representative/s of BHEL (which shall be intimated in advance), if our contractual requirements with our customers call for the same.

## 23. Force Majeure

1. Notwithstanding the provisions contained in other clauses, the supplier shall not be liable for imposition of any such sanction so long the delay and/or failure of the supplier in fulfilling its obligations under the contract is the result of an event of Force Majeure. For purposes of this clause, Force Majeure means an event beyond the control of the supplier and not involving the supplier's fault or negligence and which is not foreseeable and not brought about at the instance of the party claiming to be affected by such event and which has caused the non – performance or delay in performance. Such events may include, but are not restricted to, wars or revolutions, hostility, acts of public enemy, civil commotion, sabotage, fires, floods, explosions, epidemics, quarantine restrictions, strikes excluding by its employees, lockouts excluding by its management, freight embargoes and Acts of GOD.
2. If a Force Majeure situation arises, the supplier shall promptly notify the Purchaser/Consignee in writing of such conditions and the cause thereof within twenty-one days of occurrence of such event. Unless otherwise directed by the Purchaser/Consignee in writing, the supplier shall continue to perform its obligations under the contract as far as reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.
3. If the performance in whole or in part or any obligation under this contract is prevented or delayed by any reason of Force Majeure for a period exceeding sixty days, either party may at its option terminate the contract without any financial repercussion on either side.
4. In case due to a Force Majeure event the Purchaser/Consignee is unable to fulfil its contractual commitment and responsibility, the Purchaser/Consignee will notify the supplier accordingly and subsequent actions taken on similar lines described in above sub-paragraphs.

## 24. Non-Disclosure Agreement

All Drawing and technical documents relating to the product or it's manufacture submitted by one party to the other, prior or subsequent to the formation of contract, shall remain property of the submitting party. Drawing, technical documents or other technical information received by one party, shall not without the consent of the other party, be used for any other purpose than that, for which they were provided. Such technical information shall not without the consent of the submitting party, otherwise be used or copied, reproduced, transmitted or communicated to a third party. Patterns supplied by BHEL will remain BHEL's property which shall be returned by the bidder on demand to BHEL. Bidder shall in no way share or use such intellectual property of BHEL to promote his own business with others.

Signature Not Verified

AMAN SHARMA





## General Conditions of Contract (GCC) of MM Tenders

### BHARAT HEAVY ELECTRICALS LIMITED

Industrial Valve Plant: 433, Industrial Complex,  
Goindwal Sahib, Dist. Tarn Taran,  
Punjab-143422 (INDIA)

***BHEL reserves the right to claim damages from the bidder, or take appropriate penal action as deemed fit against the bidder, for any infringement of the provisions contained herein.***

#### 25. Preventive Checks to Eliminate Suspected Cartel Formation

The Bidder declares that they will not enter into any illegal or undisclosed agreement or understanding, whether formal or informal with other Bidder(s). This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.

In case, the Bidder is found having indulged in above activities, suitable action shall be taken by BHEL as per extant policies/ guidelines.

#### 26. Fraud Prevention Policy

The Bidder along with its associate / collaborators / sub-contractors / sub-vendors / consultants / service providers shall strictly adhere to BHEL Fraud Prevention Policy displayed on BHEL website <https://www.bhel.com/> and shall immediately bring to the notice of BHEL management about any fraud or suspected fraud as soon as it comes to their notice.

#### 27. Suspension of Business Dealings with Suppliers / Contractors

The offers of the bidders who are under suspension and also the offers of the bidders, who engage the services of the firms debarred across BHEL, shall be rejected. The list of firms debarred across BHEL is available on BHEL web site <https://www.bhel.com/>.

#### INTEGRITY COMMITMENT, PERFORMANCE OF THE CONTRACT AND PUNITIVE ACTION THEREOF:

##### 27.1. Commitment by BHEL:

BHEL commits to take all measures necessary to prevent corruption in connection with the tender process and execution of the contract. BHEL will during the tender process treat all Bidder(s) in a transparent and fair manner, and with equity.

##### 27.2. Commitment by Bidder/ Supplier/ Contractor:

27.2.1. The bidder/ supplier/ contractor commits to take all measures to prevent corruption and will not directly or indirectly influence any decision or benefit which he is not legally entitled to nor will act or omit in any manner which tantamount to an offence punishable under any provision of the Indian Penal Code, 1860 or any other law in force in India.

27.2.2. The bidder/ supplier/ contractor will, when presenting his bid, disclose any and all payments he has made, and is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract and shall adhere to relevant guidelines issued from time to time by Govt. of India/ BHEL.

Signature Not Verified

AMAN SHARMA





## General Conditions of Contract (GCC) of MM Tenders

**BHARAT HEAVY ELECTRICALS LIMITED**

Industrial Valve Plant: 433, Industrial Complex,  
Goindwal Sahib, Dist. Tarn Taran,  
Punjab-143422 (INDIA)

27.2.3. The bidder/ supplier/ contractor will perform/ execute the contract as per the contract terms & conditions and will not default without any reasonable cause, which causes loss of business/ money/ reputation, to BHEL.

If any bidder/ supplier/ contractor during pre-tendering/ tendering/ post tendering/ award/ execution/ post-execution stage indulges in mal-practices, cheating, bribery, fraud or and other misconduct or formation of cartel so as to influence the bidding process or influence the price or acts or omits in any manner which tantamount to an offence punishable under any provision of the Indian Penal Code, 1860 or any other law in force in India, then, action may be taken against such bidder/ supplier/ contractor as per extant guidelines of the company available on <https://www.bhel.com/> and/or under applicable legal provisions.

### 28. Discrepancy in Words and Figures

1. If, in the price structure quoted for the required goods/ services/ works, there is discrepancy between the unit price and the total price (which is obtained by multiplying the unit price by the quantity}, the unit price shall prevail and the total price corrected accordingly, unless in the opinion of the purchaser there is an obvious misplacement of the decimal point in the unit price, in which case the total price as quoted shall govern and the unit price corrected accordingly.
2. If there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; and
3. If there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject of (a) and (b) above.
4. If there is such discrepancy in an offer, the same shall be conveyed to the bidder with target date upto which the bidder has to send his acceptance on the above lines and if the bidder does not agree to the decision of the purchaser, the bid is liable to be ignored.
5. Bids should be free from correction, overwriting, using corrective fluid, etc. Any interlineation, cutting, erasure or overwriting shall be valid only if they are attested under full signature(s) of person(s) signing the bid else shall be liable for rejection.
6. All overwriting/cutting, etc will be numbered by bid opening officials and announced during bid opening.

### 29. LOI (Letter of Intent)

BHEL may issue LOI prior to the PO for any reason whatsoever. The LOI in such cases is to be treated as PO for all practical purposes and all the Terms & Conditions of the tender shall be applicable from the date of issue of LOI.

### 30. Sub-Contract

The purchase order or any part thereof shall not be sub-contracted, assigned or otherwise transferred without previously obtaining the BHEL's consent in writing.

Signature Not Verified

AMAN SHARMA





## General Conditions of Contract (GCC) of MM Tenders

**BHARAT HEAVY ELECTRICALS LIMITED**

Industrial Valve Plant: 433, Industrial Complex,  
Goindwal Sahib, Dist. Tarn Taran,  
Punjab-143422 (INDIA)

### 31. Clarifications

The correspondence exchanged against the tender from both tenderer and BHEL through email/e-procurement are considered as valid document legally though it is not signed. It is treated as valid confirmations made on behalf of the respective company and very much comes under the legal ambit of the business transaction and hence it is binding on both the parties to the business. Any transaction pertaining to the tender from both the parties of business done round the clock irrespective of the office or business hours of the companies, are valid legally and binding on both the parties. This applies to the extent only in such cases where deadline time for transaction is not specifically declared by either or both the parties to the business.

### 32. Restrictions Under Rule 144(XI) of The General Financial Rules (GFR), 2017

Restrictions on procurement from a bidder of a country which shares a land border with India

- I. a) Any bidder from a country which shares a land border with India will be eligible to bid in this tender, whether of goods or services (including consultancy services and non-consultancy services), only if the bidder is registered with the Competent Authority.  
b) Further, any bidder (including an Indian bidder) who has a Specified Transfer of Technology (ToT) arrangement with an entity from a country which shares a land border with India will be eligible to bid in any procurement whether of goods or services (including consultancy services and non-consultancy services) only if the bidder is registered with the Competent Authority. *This clause shall be applicable only in the tenders which attract restrictions due to specified ToT.*
- II. "Bidder" (Seller / Service Provider) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency branch or office controlled by such person, participating in a procurement process.
- III. "Bidder (or entity) from a country which shares a land border with India" for the purpose of the Order means:
  - a) An entity incorporated, established, or registered in such a country; or
  - b) A subsidiary of an entity incorporated, established, or registered in such a country; or
  - c) An entity substantially controlled through entities incorporated, established, or registered in such a country; or
  - d) An entity whose beneficial owner is situated in such a country; or
  - e) An Indian (or other) agent of such an entity; or
  - f) A natural person who is a citizen of such a country; or
  - g) A consortium or joint venture where any member of the consortium or joint venture falls under any of the above
- IV. The beneficial owner for the purpose of (iv) above will be as under
  1. In case of a company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has a controlling ownership interest or who exercises control through other means.  
Explanation—

Signature Not Verified

AMAN SHARMA





## General Conditions of Contract (GCC) of MM Tenders

**BHARAT HEAVY ELECTRICALS LIMITED**

Industrial Valve Plant: 433, Industrial Complex,  
Goindwal Sahib, Dist. Tarn Taran,  
Punjab-143422 (INDIA)

- a) "Controlling ownership interest" means ownership of or entitlement to more than twenty-five per cent. of shares or capital or profits of the company;
  - b) "Control" shall include the right to appoint majority of the directors or to control the management or policy decisions including by virtue of their shareholding or management rights or shareholders agreements or voting agreements;
  2. In case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting alone or together, or through one or more juridical person, has ownership of entitlement to more than fifteen percent of capital or profits of the partnership;
  3. In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has ownership of or entitlement to more than fifteen percent of the property or capital or profits of such association or body of individuals;
  4. Where no natural person is identified under (1) or (2) or (3) above, the beneficial owner is the relevant natural person who holds the position of senior managing official;
  5. In case of a trust, the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.
- V. An Agent is a person employed to do any act for another, or to represent another in dealings with third person.
- VI. The registration shall be valid at the time of submission of bid and at the time of acceptance of bid.
- VII. If the bidder was validly registered at the time of acceptance / placement of order, registration shall not be a relevant consideration during contract execution.
- VIII. "Transfer of Technology" means dissemination and transfer of all forms of commercially usable knowledge such as transfer of know-how, skills, technical expertise, designs, processes and procedures, trade secrets, which enables the acquirer of such technology to perform activities using the transferred technology independently.

Any false declaration and non-compliance of the above would be a ground for debarment and further legal action in accordance with law.

### **Bidder has to submit a certificate certifying following along with offer:**

"I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority. I hereby certify that this bidder fulfils all requirements in this regard and is eligible to be considered. [Where applicable, evidence of valid registration by the Competent Authority shall be Attached]."

### **33. General**

1. BHEL will not be bound by any power of attorney granted by the vendors or by changes in the composition of the firm made subsequent to the execution of the contract. They may, however, recognize such power of attorney and changes after obtaining proper legal advice, the cost of which will be chargeable to the vendor concerned.

Signature Not Verified

AMAN SHARMA





## General Conditions of Contract (GCC) of MM Tenders

**BHARAT HEAVY ELECTRICALS LIMITED**

Industrial Valve Plant: 433, Industrial Complex,  
Goindwal Sahib, Dist. Tarn Taran,  
Punjab-143422 (INDIA)

2. BHEL reserves the right to extend the due date of opening, which shall be informed. Validity of offer shall be deemed to be revised accordingly.
3. BHEL reserves the right to accept or reject any part or whole of the tender of a bidder by assigning a valid reason thereof. BHEL reserves the right to cancel the tender without assigning any reason thereof and without any obligation before any commitment.
4. Acceptance of all terms and conditions, in the form of signed copy of T&C or confirmation separately written, shall be submitted along with quotation. If nothing is mentioned, it shall be concluded that these terms and conditions are acceptable.
5. BHEL may increase/decrease item/s based on BHEL requirement before price bid opening. Suitable price implication may be asked from suppliers.
6. BHEL may drop item/items from tender at any stage of tender before placing PO. BHEL may also delete PO with consent with supplier within delivery date of PO.
7. After releasing PO, it is assumed that supplier has accepted PO if we do not receive acknowledgement from supplier within 5 days of date of PO.
8. In case of unscheduled holiday on opening day of tender, the next working day will be treated as scheduled prescribed day of opening of tender.
9. On the due date of tender opening, only technical bids will be opened. The opened technical bids will be evaluated by us and clarifications required, if any, will be called for from the bidders on technical and commercial points. If no reply is received from the vendor for the clarification raised by BHEL with in the final cut-off date, those vendors offer will be processed with the documents available / submitted against this tender. Offers not meeting the required specification and technical condition will be summarily rejected. The price bids of technically suitable bidders will be opened on a later date with prior intimation to techno-commercially suitable bidders.
10. Ranking L-1, L-2 etc. shall be done for individual item for the techno-commercially acceptable offers on landed cost to BHEL, IVP Goindwal basis and BHEL reserves the right to place order for individual items with different vendors.
11. BHEL reserves the right to negotiate with L1 vendor or re-float the tender for items where, L1 price is not the lowest acceptable price; BHEL reserves the right to increase or decrease the tender quantity.
12. If supplier is mentioning delivery destination within state/ outside state depending upon his location of factory, Free on Road etc. these are assumed as on FOR Goindwal. If supplier is wishing to give delivery on Ex works basis, then he has to clearly mention about it.
13. The bidder has to keep track of any changes by viewing the addendum(s) / Corrigendum(s) issued by the Purchaser on time-to- time basis in the E-Procurement platform. The Company calling for tenders shall not be responsible for any claims/problems arising out of this.
14. Unregistered suppliers, who are techno-commercially qualified against the open tender, are requested to register with BHEL as permanent supplier by submitting the Supplier Registration Form (SRF) in online supplier registration portal (<https://supplier.bhel.in/>).
15. The General Conditions of Contract and the Special Conditions in each enquiry and the resulting purchase order constitute the entire contract between the parties. In case of any discrepancy between the provisions of General Conditions of Contract and Special Conditions of the Tender, the provisions in Special Conditions of the Tender shall prevail and interpretation of BHEL of such condition/clause will be final and binding on both the parties.

Signature Not Verified

AMAN SHARMA







## General Conditions of Contract (GCC) of MM Tenders

**BHARAT HEAVY ELECTRICALS LIMITED**

Industrial Valve Plant: 433, Industrial Complex,  
Goindwal Sahib, Dist. Tarn Taran,  
Punjab-143422 (INDIA)

### 34. Treatment in Case of Dealer Acceptance

Whether dealers/agents in tender are acceptable that will be mentioned in tender special terms. In case of acceptance of dealers/agents in tender, below criteria is applicable.

#### For manufacturers

In case manufacturer insists on engaging a dealer / agent / reseller, such dealer / agent / reseller is not allowed to represent more than one manufacturer for same item. In case more than one dealers/agent of a company quote for same item, then bid of both dealers/agents shall be considered. In case OEM has authorized a particular dealer specific to any tender, then bid of any other dealer of same OEM shall be rejected.

#### For dealer / agent / reseller:

In case of dealers / agents / reseller, valid authorized dealer certificate is required from original manufacturer (OEM). In case bids are received from dealer / agent and manufacturer both, bid submitted by dealer will be rejected. A dealer representing more than one manufacturer for same item will be rejected. Kindly quote for single make only. Dealer has to provide contact details (like name, e-mail id, telephone no & address) of OEM office issuing "Dealer Authorization Certificate".

### 35. Enclosure

Annexure-1: Declaration regarding Insolvency/ Liquidation/ Bankruptcy Proceedings  
Annexure-2: Declaration reg. minimum local content in line with revised public procurement  
Annexure-3: Proforma of Bank Guarantee for Performance Security.  
Annexure-4: List of Consortium Bank.  
Annexure-X: Brief Procedure for Conduct of Conciliation Proceedings  
Appendix-I of Annexure-X  
Appendix-II of Annexure-X  
Appendix-III of Annexure-X







## General Conditions of Contract (GCC) of MM Tenders

**BHARAT HEAVY ELECTRICALS LIMITED**

Industrial Valve Plant: 433, Industrial Complex,  
Goindwal Sahib, Dist. Tarn Taran,  
Punjab-143422 (INDIA)

### Annexure-1

(To be Typed & submitted in the Letter Head of the Company/Firm of Bidder)

To  
Bharat Heavy Electrical Limited  
Industrial Valves Plant  
Goindwal  
Punjab-143422

Dear Sir,

Subject: DECLARATION REGARDING INSOLVENCY/ LIQUIDATION/  
BANKRUPTCY PROCEEDINGS

Ref: 1) Tender Enquiry No.

I/We, \_\_\_\_\_ declare that, I/We am/are not  
admitted under insolvency resolution process or liquidation under Insolvency and Bankruptcy  
Code, 2016, as amended from time to time or under any other law as on date, by NCLT or  
any adjudicating authority/authorities.

Yours faithfully,

(Signature, date & seal of authorized representative of the bidder)

Date:

Place:





## General Conditions of Contract (GCC) of MM Tenders

**BHARAT HEAVY ELECTRICALS LIMITED**

Industrial Valve Plant: 433, Industrial Complex,  
Goindwal Sahib, Dist. Tarn Taran,  
Punjab-143422 (INDIA)

### Annexure-2

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 & submitted in the Letter Head of the Company/Firm of Bidder)

To  
Bharat Heavy Electrical Limited  
Industrial Valves Plant  
Goindwal  
Punjab-143422

Dear Sir,

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

Ref: 1) Tender Enquiry No.

We hereby certify that the items/works/services offered by M/s \_\_\_\_\_  
(Name of of bidder) has a local content of \_\_\_\_% and this meets the local content requirement  
for **Class-1 Local supplier/ Class-2 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.





## General Conditions of Contract (GCC) of MM Tenders

**BHARAT HEAVY ELECTRICALS LIMITED**

Industrial Valve Plant: 433, Industrial Complex,  
Goindwal Sahib, Dist. Tarn Taran,  
Punjab-143422 (INDIA)

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 bidders quoted value is in excess of Rs 10 Crores , the authorized signatory of this declaration shall necessarily be the statutory auditor or cost auditor of the company (in the case of companies) or a practicing 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





## General Conditions of Contract (GCC) of MM Tenders

**BHARAT HEAVY ELECTRICALS LIMITED**

Industrial Valve Plant: 433, Industrial Complex,  
Goindwal Sahib, Dist. Tarn Taran,  
Punjab-143422 (INDIA)

### Annexure-3

#### BANK GUARANTEE FOR PERFORMANCE SECURITY (On non-Judicial paper of appropriate value)

Bank Guarantee No.  
Date.

To  
Bharat Heavy Electrical Limited  
Industrial Valves Plant  
Goindwal  
Punjab-143422

Dear Sirs,

In consideration of Bharat Heavy Electricals Limited (hereinafter referred to as the 'Employer' which expression shall unless repugnant to the context or meaning thereof, include its successors and permitted assigns) incorporated under the Companies Act, 1956 and having its registered office BHEL House, Siri Fort New Delhi through its Unit at BHEL, IVP, Goindwal having awarded to.....  
(Name of the Vendor / Contractor / Supplier) with its registered office at..... hereinafter referred to as the ' Vendor / Contractor / Supplier ', which expression shall unless repugnant to the context or meaning thereof, include its successors and permitted assigns), a contract Ref No..... valued at Rs. .... (Rupees .....)  
and the Vendor / Contractor / Supplier having agreed to provide a contract performance bank guarantee, equivalent to ... % (... percent) of the said value of the contract to the employer for the faithful performance of the Contract.

We, ....., (here in after referred to as the Bank), having registered/Head office at .....and inter alia a branch at .....being the Guarantor under this Guarantee, hereby irrevocably and unconditionally undertake to forthwith and Immediate pay to the Employer any sum or sums upto a maximum amount of Rs .....  
(Rupees in words .....) without any demur, immediately on first demand from the Employer and without any reservation, protest, and recourse and without the Employer needing to prove or demonstrate reasons for its such demand.

Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs.....

Signature Not Verified

AMAN SHARMA





## General Conditions of Contract (GCC) of MM Tenders

**BHARAT HEAVY ELECTRICALS LIMITED**

Industrial Valve Plant: 433, Industrial Complex,  
Goindwal Sahib, Dist. Tarn Taran,  
Punjab-143422 (INDIA)

We undertake to pay to the Employer any money so demanded notwithstanding any dispute or disputes raised by the Vendor / Contractor / Supplier in any suit or proceeding pending before any Court or Tribunal, Arbitrator or any other authority, our liability under this present being absolute and unequivocal.

The payment so made by us under this Guarantee shall be a valid discharge of our liability for payment thereunder and the Vendor / Contractor / Supplier shall have no claim against us for making such payment.

We the.....Bank further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Contract/ satisfactory completion of the performance guarantee period as per the terms of the Contract and that it shall continue to be enforceable till all the dues of the employer under or by virtue of the said Contract have been fully paid and its claims satisfied or discharged.

We.....Bank further agree that the Employer shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Contract or to extend time of performance by the said Vendor /Contractor / Supplier from time to time or to postpone for any time or from time to time any of the powers exercisable by the Employer against the said Vendor / Contractor / Supplier and to forbear or enforce any of the terms and conditions relating to the said Contract and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Vendor / Contractor / Supplier or for any forbearance, act or omission on the part of the Employer or any indulgence by the Employer to the said Vendor / Contractor / Supplier or by any such matter or thing whatsoever which under the law relating to sureties would but for this provision have effect of so relieving us.

The Bank also agrees that the Employer at its option shall be entitled to enforce this Guarantee against the Bank as a principal debtor, in the first instance without proceeding against the Vendor / Contractor/ Supplier and notwithstanding any security or other guarantee that the Employer may have in relation to the Vendor /Contractor / Supplier 's liabilities.

This Performance Bank Guarantee shall remain in force upto..... and including and shall be extended from time to time for such period as may be desired by Employer.

This Guarantee shall not be determined or affected by liquidation or winding up, dissolution or change of constitution or insolvency of the Vendor / Contractor / Supplier but shall in all respects and for all purposes be binding and operative until payment of all money payable to the Employer in terms thereof.





## General Conditions of Contract (GCC) of MM Tenders

**BHARAT HEAVY ELECTRICALS LIMITED**

Industrial Valve Plant: 433, Industrial Complex,  
Goindwal Sahib, Dist. Tarn Taran,  
Punjab-143422 (INDIA)

Unless a demand or claim under this guarantee is made on us in writing on or before the.....we shall be discharged from all liabilities under this guarantee thereafter.

This Bank Guarantee shall be governed, construed and interpreted in accordance with the laws of India.

Courts at ..... shall alone have exclusive jurisdiction over any matter arising out of or in connection with this bank guarantee.

We ..... Bank lastly undertake not to revoke this guarantee during its currency except with the previous consent of the Employer in writing.

Notwithstanding anything to the contrary contained hereinabove:

- a) The liability of the Bank under this guarantee shall not exceed-----
- b) This Guarantee shall be valid up to -----
- c) Unless the Bank is served a written claim or demand on or before..... all rights under this guarantee shall be forfeited and the Bank shall be relieved and discharged from all liabilities under this guarantee irrespective of whether or not the original bank guarantee is returned to the Bank.

We, ..... Bank have power to issue this Guarantee under law and the undersigned as a duly authorized person has full powers to sign this Guarantee on behalf of the Bank.

For and on behalf of  
(Name of the Bank)

Date:

Place of Issue:

Notes:

1. The BG should be on Non-Judicial Stamp paper/e-stamp paper of appropriate value as per Stamp

Act prevailing in the State(s) where the BG is submitted or is to be acted upon or the rate prevailing in the State where the BG was executed, whichever is higher. The Stamp Paper/estamp paper shall be purchased in the name of Contractor/sub-contractor /vendor/ Bank issuing the guarantee.

Signature Not Verified

AMAN SHARMA





## General Conditions of Contract (GCC) of MM Tenders

**BHARAT HEAVY ELECTRICALS LIMITED**

Industrial Valve Plant: 433, Industrial Complex,  
Goindwal Sahib, Dist. Tarn Taran,  
Punjab-143422 (INDIA)

### Annexure-4

#### LIST OF CONSORTIUM BANKS

Sl. No.	NAME OF THE BANK
1	State Bank of India
2	Canara Bank
3	IDBI Bank Limited
4	ICICI Bank Limited
5	HDFC Bank Limited
6	Axis Bank
7	IndusInd Bank Limited
8	Bank of Baroda
9	Exim Bank
10	Indian Bank
11	Punjab National Bank
12	Union Bank of India
13	Yes Bank Limited
14	RBL Bank Ltd.
15	Standard Chartered Bank
16	Indian Overseas Bank
17	Kotak Mahindra Bank Limited
18	Federal Bank Limited
19	Hongkong and Shanghai Banking Corporation Ltd

Signature Not Verified

AMAN SHARMA







## General Conditions of Contract (GCC) of MM Tenders

**BHARAT HEAVY ELECTRICALS LIMITED**

Industrial Valve Plant: 433, Industrial Complex,  
Goindwal Sahib, Dist. Tarn Taran,  
Punjab-143422 (INDIA)

### Annexure-X

#### **BRIEF PROCEDURE FOR CONDUCT OF CONCILIATION PROCEEDINGS**

1. The proceedings of Conciliation shall broadly be governed by Part-III of the Arbitration and Conciliation Act 1996 or any statutory modification thereof and as provided herein:
2. The party desirous of resorting to Conciliation shall send an invitation/notice in writing to the other party to conciliate specifying all points of Disputes with details of the amount claimed. The party concerned shall not raise any new issue thereafter. Parties shall also not claim any interest on claims/counter-claims from the date of notice invoking Conciliation till the conclusion of the Conciliation proceedings.
3. The party receiving the invitation/notice for Conciliation shall within 30 days of receipt of the notice of Conciliation intimate its consent for Conciliation along with its counter-claims, if any.
4. The Conciliation in a matter involving claim or counter-claim (whichever is higher) up to Rs 5 crores shall be carried out by sole Conciliator nominated by BHEL while in a matter involving claim or counter-claim (whichever is higher) of more than Rs 5 crores Conciliation shall be carried out by 3 Conciliators nominated by BHEL.
5. The Parties shall be represented by only their duly authorized in-house executives/officers and neither Party shall be represented by a Lawyer.
6. The first meeting of the IEC shall be convened by the IEC by sending appropriate communication/notice to both the parties as soon as possible but not later than 30 days from the date of his/their appointment. The hearings in the Conciliation proceeding shall ordinarily be concluded within two (2) months and, in exceptional cases where parties have expressed willingness to settle the matter or there exists possibility of settlement in the matter, the proceedings may be extended by the IEC by a maximum of further 2 months with the consent of the Parties subject to cogent reasons being recorded in writing.
7. The IEC shall thereafter formulate recommendations for settlement of the Disputes supported by reasons at the earliest but in any case, within 15 days from the date of conclusion of the last hearing. The recommendations so formulated along with the reasons shall be furnished by the IEC to both the Parties at the earliest but in any case, within 1 month from the date of conclusion of the last hearing.
8. Response/modifications/suggestions of the Parties on the recommendations of the IEC are to be submitted to the IEC within time limit stipulated by the IEC but not more than 15 days from the date of receipt of the recommendations from the IEC.

Signature Not Verified

AMAN SHARMA





## General Conditions of Contract (GCC) of MM Tenders

**BHARAT HEAVY ELECTRICALS LIMITED**

Industrial Valve Plant: 433, Industrial Complex,  
Goindwal Sahib, Dist. Tarn Taran,  
Punjab-143422 (INDIA)

9. In the event, upon consideration, further review of the recommendations is considered necessary, whether by BHEL or by the other Party, then, the matter can be remitted back to the IEC with request to reconsider the same in light of the issues projected by either/both the Parties and to submit its recommendations thereon within the following 15 days from the date of remitting of the case by either of the Parties.
10. Upon the recommendations by the Parties, with or without modifications, as considered necessary, the IEC shall be called upon to draw up the Draft Settlement Agreement in terms of the recommendations.
11. When a consensus can be arrived at between the parties only in regard to any one or some of the issues referred for Conciliation the draft Settlement Agreement shall be accordingly formulated in regard to the said Issue(s), and the said Settlement Agreement, if signed, by the parties, shall be valid only for the said issues. As regards the balance issues not settled, the parties may seek to resolve them further as per terms and conditions provided in the contract.
12. In case no settlement can be reached between the parties, the IEC shall by a written declaration, pronounce that the Conciliation between the parties has failed and is accordingly terminated.
13. Unless the Conciliation proceedings are terminated in terms of para 22 (b), (c) & (d) herein below, the IEC shall forward his/its recommendations as to possible terms of settlement within one (1) month from the date of last hearing. The date of first hearing of Conciliation shall be the starting date for calculating the period of 2 months.
14. In case of 3 members IEC, 2 members of IEC present will constitute a valid quorum for IEC and meeting can take place to proceed in the matter after seeking consent from the member who is not available. If necessary, videoconferencing may be arranged for facilitating participation of the members. However, the IEC recommendations will be signed by all members. Where there is more than one (1) Conciliator, as a general rule they shall act jointly. In the event of differences between the Members of IEC, the decision/recommendations of the majority of the Members of IEC shall prevail and be construed as the recommendation of the IEC.
15. The Draft Settlement Agreement prepared by the IEC in terms of the consensus arrived at during the Conciliation proceedings between the Parties shall be given by the IEC to both the parties for putting up for approval of their respective Competent Authority.
16. Before submitting the draft settlement agreement to BHEL's Competent Authority viz. the Board Level Committee on Alternative Dispute Resolution (BLCADR) for approval, concurrence of the other party's Competent Authority to the draft settlement agreement shall be obtained by the other party and informed to BHEL within 15 days of receipt of the final draft settlement agreement by it. Upon approval by the Competent Authority, the Settlement Agreement would thereafter be signed by the authorized representatives of both the Parties and authenticated by the members of the IEC.

Signature Not Verified

AMAN SHARMA





## General Conditions of Contract (GCC) of MM Tenders

**BHARAT HEAVY ELECTRICALS LIMITED**

Industrial Valve Plant: 433, Industrial Complex,  
Goindwal Sahib, Dist. Tarn Taran,  
Punjab-143422 (INDIA)

17. In case the Draft Settlement Agreement is rejected by the Competent Authority of BHEL or the other Party, the Conciliation proceedings would stand terminated.
18. A Settlement Agreement shall contain a statement to the effect that each of the person(s) signing thereto (i) is fully authorized by the respective Party(ies) he/she represents, (ii) has fully understood the contents of the same and (iii) is signing on the same out of complete freewill and consent, without any pressure, undue influence.
19. The Settlement Agreement shall thereafter have the same legal status and effect as an arbitration award on agreed terms on the substance of the dispute rendered by an arbitral tribunal passed under section 30 of the Arbitration and Conciliation Act, 1996.
20. Acceptance of the Draft Settlement Agreement/recommendations of the Conciliator and/or signing of the Settlement Agreement by BHEL shall however, be subject to withdrawal/closure of any arbitral and/or judicial proceedings initiated by the concerned Party in regard to such settled issues.
21. Unless otherwise provided in the agreement, contract or the Memorandum of Understanding, as the case may be, in the event of likelihood of prolonged absence of the Conciliator or any member of IEC, for any reason/incapacity, the Competent Authority/Head of Unit/Division/Region/Business Group of BHEL may substitute the Conciliator or such member at any stage of the proceedings. Upon appointment of the substitute Conciliator(s), such reconstituted IEC may, with the consent of the Parties, proceed with further Conciliation into the matter either de-novo or from the stage already reached by the previous IEC before the substitution.
22. The proceedings of Conciliation under this Scheme may be terminated as follows:
- On the date of signing of the Settlement agreement by the Parties; or,
  - By a written declaration of the IEC, after consultation with the parties, to the effect that further efforts at conciliation are no longer justified, on the date of the declaration; or,
  - By a written declaration of the Parties addressed to the IEC to the effect that the Conciliation proceedings are terminated, on the date of the declaration; or,
  - By a written declaration of a Party to the other Party and the IEC, if appointed, to the effect that the Conciliation proceedings are terminated, on the date of the declaration.
  - On rejection of the Draft Settlement Agreement by the Competent Authority of BHEL or the other Party.





## General Conditions of Contract (GCC) of MM Tenders

**BHARAT HEAVY ELECTRICALS LIMITED**

Industrial Valve Plant: 433, Industrial Complex,  
Goindwal Sahib, Dist. Tarn Taran,  
Punjab-143422 (INDIA)

23. The Conciliator(s) shall be entitled to following fees and facilities:

Sr. No.	Particulars	Amount
1	Sitting fees	Each Member shall be paid a Lump Sum fee of Rs 75,000/- for the whole case payable in terms of paragraph No. 27 herein below.
2	Towards drafting of settlement agreement	<p>In cases involving claim and/or counter-claim of up to Rs 5crores. Rs 50,000/- (Sole Conciliator)</p> <p>In cases involving claim and/or counter-claim of exceeding Rs 5 crores but less than Rs 10 crores. Rs. 75,000 (per Conciliator)</p> <p>In cases involving claim and/or counter-claim of more than Rs 10 crores. Rs 1,00,000/- (per Conciliator)</p> <p>Note: The aforesaid fees for the drafting of the Settlement Agreement shall be paid on Signing of the Settlement Agreement after approval of the Competent Authority or Rejection of the proposed Settlement Agreement by the Competent Authority of BHEL.</p>
3	Secretarial expenses	<p>Rs 10,000/- (one time) for the whole case for Conciliation by a Sole Member IEC.</p> <p>Where Conciliation is by multi member Conciliators –Rs 30,000/- (one time)- to be paid to the IEC</p>
4	Travel and transportation and stay at outstation	As per entitlement of the equivalent officer (pay scale wise) in BHEL.
	i Retired Senior Officials of other Public Sector Undertakings (pay scale wise equivalent to or more than E-8 level of BHEL)	
	Others	As per the extant entitlement of whole time Functional Directors in BHEL.

Signature Not Verified

AMAN SHARMA





## General Conditions of Contract (GCC) of MM Tenders

**BHARAT HEAVY ELECTRICALS LIMITED**

Industrial Valve Plant: 433, Industrial Complex,  
Goindwal Sahib, Dist. Tarn Taran,  
Punjab-143422 (INDIA)

5	Venue for meeting	Unless otherwise agreed in the agreement, contract or the Memorandum of Understanding, as the case may be, the venue/seat of proceedings shall be the location of the concerned Unit / Division / Region / Business Group of BHEL. Without prejudice to the seat/venue of the Conciliation being at the location of concerned BHEL Unit / Division / Region / Business Group, the IEC after consulting the Parties may decide to hold the proceedings at any other place/venue to facilitate the proceedings. Unless, Parties agree to conduct Conciliation at BHEL premises, the venue is to be arranged by either Party alternately.
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24. The parties will bear their own costs including cost of presenting their cases/evidence/witness(es)/expert(s) on their behalf. The parties agree to rely upon documentary evidence in support of their claims and not to bring any oral evidence in IEC proceedings.

25. If any witness(es) or expert(s) is/are, with the consent of the parties, called upon to appear at the instance of the IEC in connection with the matter, then, the costs towards such witness(es)/expert(s) shall be determined by the IEC with the consent of the Parties and the cost so determined shall be borne equally by the Parties.

26. The other expenditures/costs in connection with the Conciliation proceedings as well as the IEC's fees and expenses shall be shared by the Parties equally.

27. Out of the lump sum fees of Rs 75,000/- for Sitting Fees, 50% shall be payable after the first meeting of the IEC and the remaining 50% of the Sitting Fees shall be payable only after termination of the conciliation proceedings in terms of para 22 hereinabove.

28. The travelling, transportation and stay at outstation shall be arranged by concerned Unit as per entitlements as per Serial No. 3 of the Table at para 23 above, and in case such arrangements are not made by the BHEL Unit, the same shall be reimbursed to the IEC on actuals limited to their entitlement as per Serial No. 4 of the Table at Para 23 above against supporting documents. The IEC Member(s) shall submit necessary invoice for claiming the fees/reimbursements.

29. The Parties shall keep confidential all matters relating to the conciliation proceedings. Confidentiality shall extend also to the settlement agreement, except where its disclosure is necessary for purposes of its implementation and enforcement or as required by or under a law or as per directions of a Court/Governmental authority/ regulatory body, as the case may be.

Signature Not Verified

AMAN SHARMA





## General Conditions of Contract (GCC) of MM Tenders

**BHARAT HEAVY ELECTRICALS LIMITED**

Industrial Valve Plant: 433, Industrial Complex,  
Goindwal Sahib, Dist. Tarn Taran,  
Punjab-143422 (INDIA)

30. The Parties shall not rely upon or introduce as evidence in any further arbitral or judicial proceedings, whether or not such proceedings relate to the Disputes that is the subject of the Conciliation proceedings:
- Views expressed or suggestions made by the other party in respect of a possible settlement of the Disputes;
  - admissions made by the other party in the course of the Conciliator proceedings;
  - proposals made by the Conciliator;
  - The fact that the other Party had indicated his willingness to accept a proposal for settlement made by the Conciliator.
31. The Parties shall not present the Conciliator(s) as witness in any Alternative Dispute Resolution or Judicial proceedings in respect of a Disputes that is/was the subject of that particular Conciliation proceeding.
32. None of the Conciliators shall act as an arbitrator or as a representative or counsel of a Party in any arbitral or judicial proceeding in respect of a Disputes that is/was the subject of that particular Conciliation proceeding.
33. The Parties shall not initiate, during the Conciliation proceedings, any arbitral or judicial proceedings in respect of a Disputes that is the subject matter of the Conciliation proceedings except that a Party may initiate arbitral or judicial proceedings where, in his opinion, such proceedings are necessary for preserving his rights including for preventing expiry of period of limitation. Unless terminated as per the provisions of this Scheme, the Conciliation proceedings shall continue notwithstanding the commencement of the arbitral or judicial proceedings and the arbitral or judicial proceedings shall be primarily for the purpose of preserving rights including preventing expiry of period of limitation.
34. The official language of Conciliation proceedings under this Scheme shall be English unless the Parties agree to some other language.







## General Conditions of Contract (GCC) of MM Tenders

**BHARAT HEAVY ELECTRICALS LIMITED**

Industrial Valve Plant: 433, Industrial Complex,  
Goindwal Sahib, Dist. Tarn Taran,  
Punjab-143422 (INDIA)

### Appendix-I of Annexure-X

#### **FORMAT FOR SEEKING CONSENT FOR REFERRING THE DISPUTES TO CONCILIATION THROUGH IEC**

To,

M/s. (Stakeholder's name)

**Sub: Resolution of the Disputes through conciliation by Independent Expert Committee (IEC).**

Ref: Contract No/MoU/Agreement/LOI/LOA& date \_\_\_\_\_.

Sir,

With reference to above referred Contract/MoU/Agreement/LOI/LOA, you have raised certain Disputes/claims. Vide your letter dated\_\_\_\_ you have requested BHEL to refer the Disputes/claims to IEC for Conciliation.

We are enclosing herewith Format (3) for giving consent and the terms and conditions of BHEL Conciliation Scheme, 2018 governing conciliation through IEC. You are requested to give your unconditional consent to the said terms and conditions of the Scheme by returning the same duly sealed and signed on each page. On receipt of your consent, matter will be put to the Competent Authority for consideration and decision.

Please note that BHEL has also certain claims against you (if applicable). BHEL reserves its right to agree or not to agree conciliation of the said disputes through BHEL and this letter is being issued without prejudice to BHEL's rights and contentions available under the contract and law.

Yours faithfully,

**Representative of BHEL**





## General Conditions of Contract (GCC) of MM Tenders

**BHARAT HEAVY ELECTRICALS LIMITED**

Industrial Valve Plant: 433, Industrial Complex,  
Goindwal Sahib, Dist. Tarn Taran,  
Punjab-143422 (INDIA)

### Appendix-II of Annexure-X

#### **FORMAT FOR GIVING CONSENT BY CONTRACTOR/VENDOR/CUSTOMER/COLLABORATOR/CONSORTIUM PARTNERS FOR REFERRING THE DISPUTES TO CONCILIATION THROUGH IEC**

To,

BHEL

.....

**Sub: Resolution of Disputes through Conciliation by Independent Expert Committee (IEC).**

Ref: Contract/MoU/Agreement/LOI/LOA No

& date \_\_\_\_

With reference to above referred contract, our following bills/invoices/claims submitted to BHEL are still unpaid giving rise to Disputes:

SL. no.	Claim Description	Bill submitted to BHEL (no. and date)	Amount of the bill/claim	Amount received from BHEL	Outstanding Amount

Accordingly, we request you to kindly refer the Disputes in respect of above claims to IEC for Conciliation.

We hereby agree and give our unconditional consent to the terms and conditions of BHEL Conciliation Scheme, 2018 governing conciliation through IEC. We have signed the same on each page and enclosed it for your consideration.

Yours faithfully,

**(Signature with stamp)**

**Authorized Representative of Contractor  
Name, with designation Date**



**Appendix-III of Annexure-X**

**STATEMENT OF CLAIMS/COUNTER CLAIMS TO BE SUBMITTED TO THE  
IEC BY BOTH THE PARTIES**

1. Chronology of the Disputes
2. Brief of the Contract/MoU/Agreement/LOI/LOA
3. Brief history of the Disputes:
4. Issues:
5. Details of Claim(s)/Counter Claim(s):

SI. No.	Description of claim(s)/Counter Claim	Amount (in INR) Or currency applicable in the contract	Relevant contract clause

6. Basis/Ground of claim(s)/counter claim(s) (along with relevant clause of contract)

**Note**– The Statement of Claims/Counter Claims may ideally be restricted to maximum limit of 20 pages. Relevant documents may be compiled and submitted along with the statement of Claims/Counter Claims. The statement of Claims/Counter Claims is to be submitted to all IEC members and to the other party by post as well as by email.



**Tender Enquiry No. 2526-077E** Dated 31.12.2025 **Due date 10.01.2026**

**Tender Description:** Purchase of HSFG Fasteners and Plain Chamfered Washers

**(Annexure - P)**

<b>Pre-Qualification Criteria – As per Tender Special Term S2.c</b>							
<b>S.N.</b>	<b>Required executed order value as per NIT (Net of Taxes) (INR)</b>	<b>Executed order value (Net of Taxes) as per bidder (INR)</b>	<b>Purchase order no. and date [PO date should be on or after 01.12.2022 till tender Part-1 bid opening date]</b>	<b>Purchase Order issued by (Client name) M/s</b>	<b>Item description as per PO</b>	<b>Documents submitted against completion /execution proof of the afore mentioned PO (Invoice / Consignee Receipt Note / Completion Certificate) [Document date should be on or after 01.12.2022 till tender Part-1 bid opening date]</b>	<b>Full address of the client and contact person (Name &amp; Details i.e. Mail ID, Mobile No. etc)</b>
1							
2							
3							
4							
5							
6							
7							

More lines can be added, if required.

**Notes :-**

1. Kindly attach all the above stated documents in the Quotation.
2. All proof of execution like Invoice / Consignee Receipt Note / Completion Certificate must include the Purchase Order reference number, otherwise that PO will not be considered for the fulfilment of this tender term.

**Tender Enquiry No. 2526-077E** Dated 31.12.2025 **Due date 10.01.2026**

**ITEM: Purchase of HSFG Fasteners and Plain Chamfered Washers**

**(Annexure- Q)**

## Confirmations

### Confirmation of Special Terms: -

SPECIAL TERMS	CONFIRMATION BY BIDDER
<b>Validity of Offer</b> : 90 days from the actual date of techno-commercial bid (Part I) opening (as per Tender Special Term S5).	<b>Yes / No</b>
<b>Delivery Destination</b> (as per Tender Special Term S1 and S6). For all items Sr. no. 1 to 11 : BHEL Trichy, Tamil Nadu	<b>Yes / No</b>
<b>Unloading</b> of Material at BHEL Stores is in the Scope of BHEL Office (as per Tender Special Term S6).	<b>Yes / No</b>
<b>Differential Freight</b> (as per Tender Special Term S9).	<b>Yes / No</b>
<b>Packing of Material in Crates</b> (as per Tender Special Term S13).	<b>Yes / No</b>
<b>Rust Preventive Coating / Hot Dip Galvanised / Sherardised</b> is to be done as applicable (as per Special Term S1)	<b>Yes / No</b>
<b>Rates quoted by the bidder against this tender is excluding of Taxes and on FOR Destination basis.</b>	<b>Yes / No</b>
<b>Undertaking that Bidder have read and understand all Drawings/QCP and other terms and conditions and comply the same.</b>	<b>Yes / No</b>

### Confirmation: Required documents as per tender terms has attached.

List of Documents to be attached during Bid Submission		Refer Tender Terms	To be confirm by Bidder
1	Submission of UDYAM Certificate or Declaration from bidder is engaged in Manufacturing of Fasteners.	S.2 (a)	Attached / Not attached
2	List of machinery	S.2 (a)	Attached / Not attached
3	Balance sheets / CA Certificate for last three financial years viz. FY 2022-23, 2023-24 and 2024-25 with valid UDIN.	S.2 (b)	Attached / Not attached
4	Copy of Purchase Orders (PO) along with its proof of execution like Invoice / Consignee Receipt Note / Completion Certificate. Also fill Annexure – P for the same.	S.2 (c)	Attached / Not attached
5	<b>UDYAM Registration Certificate</b> for availing applicable benefits for MSE vendors as per tender terms.	S.3	Attached / Not attached
6	Duly Filled Techno-Commercial bid (Part- I, MS-Excel file to uploaded in .pdf )	S.3	Attached / Not attached
7	Duly Filled Annexure – Q (this document)	S.3	Attached / Not attached
8	BIS License Copy or Screen Shot of BIS Website complying the BIS Requirements (for item Sr. no. 1 to 3)	S.15	Attached / Not attached

**PART-I (TECHNO-COMMERCIAL BID)**

(To be filled by bidder &amp; submit with offer as pdf file only)

**Tender Enquiry No. & Date****2526-077E Dated 31.12.2025****Tender Description****Purchase of HSFG Fasteners and Plain Chamfered Washers**

Bidder must note following points:

1. This workbook is protected, except for cells where comments / confirmation is to be given by bidder.
2. Bidder is advised not to unprotect / tamper the sheet / alter the terms mentioned in the sheet.
3. Any alteration to terms mentioned by BHEL will be considered as tampering and bidder's offer shall be liable for rejection.
4. Bidders are advised to only fill the unprotected cells (shaded cells) by dropdown or writing the comments as applicable as their confirmation. **Bidders are advised to submit duly filled & signed 'PDF' file as techno-commercial (Part-I) bid**. Failure on the part of bidder in not returning this duly filled-up techno-commercial bid and / or submitting incomplete replies may lead to rejection of bidder's quotation.
5. All the commercial terms and conditions shall be indicated by vendor in this format only and nowhere else in his quotation. However, in case the space for vendor's reply is not sufficient against a particular question, the vendor shall furnish same by way of separate annexure / sheet attached to this questionnaire, indicating cross-reference of respective clauses.

**BIDDER'S DETAILS**

Sr. No.	Elements	Remarks
1	Name of the Firm / Company	
2	Registered Address	
3	Quotation reference no. & date	
4	Contact person	Name / Designation
	Details	Contact Number
		Email ID (can be more than one)
5	Bidder Type (Indian / Foreign):	
6	Type of Ownership	Select from drop down list
7	Company's Nature of Business	Select from drop down list
8	Year of commencement of Business	
9	Company registration No. & Incorporation Certificate	
10	PF No.	
11	ESIC No.	
12	PAN No.	
13	GST No.	
14	Name of major / reputed Companies where the vendor is registered	
15	Whether company is registered under MSMED Act 2006 as Micro / Small / Medium Enterprise category. (If yes, please attach valid certificate as per latest MSME guidelines)	Select from drop down list
	If Yes, Please specify the Enterprise Category	Select from drop down list
	Ownership status of MSE Bidder	Select from drop down list

If yes, mention  
UDYAM registration  
number Here**TECHNICAL CONDITION DETAIL**

Sr. No.	Elements	Response	Remarks
1	Technical : Supply of HSFG Fasteners and Washers (Enq. Item Sr. No. 1 to 3) as per tender documents (if selected 'Accepted with deviation', please mention the deviation clearly)	Select from drop down list	
2	Technical : Supply of SS FIT Bolts and Nuts (Enq. Item Sr. No. 4 to 10), (if selected 'Accepted with deviation', please mention the deviation clearly)	Select from drop down list	

**PART-I (TECHNO-COMMERCIAL BID)****(To be filled by bidder & submit with offer as pdf file only)****Tender Enquiry No. & Date****2526-077E Dated 31.12.2025****Tender Description****Purchase of HSFG Fasteners and Plain Chamfered Washers**

Bidder must note following points:

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2. Bidder is advised not to unprotect / tamper the sheet / alter the terms mentioned in the sheet.
3. Any alteration to terms mentioned by BHEL will be considered as tampering and bidder's offer shall be liable for rejection.
4. **Bidders are advised to only fill the unprotected cells (shaded cells) by dropdown or writing the comments as applicable as their confirmation. Bidders are advised to submit duly filled & signed 'PDF' file as techno-commercial (Part-I) bid'. Failure on the part of bidder in not returning this duly filled-up techno-commercial bid and / or submitting incomplete replies may lead to rejection of bidder's quotation.**
5. All the commercial terms and conditions shall be indicated by vendor in this format only and nowhere else in his quotation. However, in case the space for vendor's reply is not sufficient against a particular question, the vendor shall furnish same by way of separate annexure / sheet attached to this questionnaire, indicating cross-reference of respective clauses.

3	For item Sr. no 11	Technical : Supply of Sherardized Washers as per tender documents (if selected 'Accepted with deviation', please mention the deviation clearly)	Select from drop down list	
		Specifications : - In line with following requirements: 1) Table 8 of EN14399 Part 9 2) Hardness Range 372 HV30 to 448 HV 30 (Vickers Hardness) 3) As per part 9 of euro code EN14399 the bolt face washer coating to be "sherardized" confirming to EN ISO 17668	Select from drop down list	
4	Applicable Standard Quality Plan' is SQP:HSFG:001 Rev 3 dated 18.11.2025		Select from drop down list	

**COMMERCIAL CONDITIONS & DETAILS**

Sr. No.	Elements		Response	Remarks (if any)
1	GST / Taxes Applicable		Select from drop down list	
2	Delivery Destination (refer tender special term S1 and S4)	Sr.No. 1 to 11, BHEL Trichy Stores	Select from drop down list	
3	Self Declaration by Bidder : It is hereby declared that Bidder is 'manufacturer of Fasteners' and submitted the List of Machinery (Refer special terms S2.a).		Select from drop down list	
4	Bidder should have Minimum Average Annual Financial Turnover of Rs. 480 Lakhs, over last three financial years viz. FY 2022-23, 2023-24 and 2024-25. (Refer special term S2.b)		Select from drop down list	
5	Bidder has to submit one or more purchase order/s of 'similar item' (refer Table 3 of tender Special terms) from any customer with minimum cumulative value of Rs. 44 Lakhs along with the proof of execution (Refer special term S2.c).		Select from drop down list	
6	Delivery Period: 90 Days from date of placement of PO / LOI (refer tender special term S4)		Select from drop down list	
7	Validity: 90 days from techno commercial bid opening. (refer tender special term S5)		Select from drop down list	
8	Unloading (refer tender special term S6)		Select from drop down list	



## PART-I (TECHNO-COMMERCIAL BID)

(To be filled by bidder & submit with offer as pdf file only)

**Tender Enquiry No. & Date**

**2526-077E Dated 31.12.2025**

**Tender Description**

**Purchase of HSFG Fasteners and Plain Chamfered Washers**

Bidder must note following points:

1. This workbook is protected, except for cells where comments / confirmation is to be given by bidder.
2. Bidder is advised not to unprotect / tamper the sheet / alter the terms mentioned in the sheet.
3. Any alteration to terms mentioned by BHEL will be considered as tampering and bidder's offer shall be liable for rejection.
4. **Bidders are advised to only fill the unprotected cells (shaded cells) by dropdown or writing the comments as applicable as their confirmation. Bidders are advised to submit duly filled & signed 'PDF' file as techno-commercial (Part-I) bid'. Failure on the part of bidder in not returning this duly filled-up techno-commercial bid and / or submitting incomplete replies may lead to rejection of bidder's quotation.**
5. All the commercial terms and conditions shall be indicated by vendor in this format only and nowhere else in his quotation. However, in case the space for vendor's reply is not sufficient against a particular question, the vendor shall furnish same by way of separate annexure / sheet attached to this questionnaire, indicating cross-reference of respective clauses.

9	Differential Freight Clause (Refer special terms S9)	Select from drop down list	
10	Packing of Material should be inline with tender requirements (Refer special terms S13)	Select from drop down list	
11	Compliances - Applicable for 3 items (Refer special terms S15)	Select from drop down list	
12	Detention Charges - while unloading at site (Refer special terms S16)	Select from drop down list	
13	Confirmations of Special terms as per <b>Annexure-Q</b> (Refer special term S3.e)	Select from drop down list	
14	Payment term: (Refer Clause 9 of General Contract Conditions (GCC)).	Select from drop down list	
15	<div> <div>Treatment of cases regarding Conflict of Interest (Refer clause no. 11 of General Contract conditions (GCC))</div> <div> <p>Bidder declares that they have read and understood the above aspects, and the bidder confirms that such conflict of interest does not exist and undertakes that they will not enter into any illegal or undisclosed agreement or understanding, whether formal or informal with other Bidder(s), in this regard. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.</p> </div> </div>	Select from drop down list	
16	<u>Performance Security (PS) :</u> Successful bidders (L1 or counter-offer accepted) are required to submit performance security of upto 5% of the contract value, within 21 days from the award of PO/LOI. (Refer clause no. 13 of General Contract conditions (GCC))	Select from drop down list	
17	Breach of contract and Termination (Refer clause no. 14 of General Contract conditions (GCC))	Select from drop down list	
18	<b>Warranty Period:</b> Supplier shall give a warrantee for a period of 18 months from the date of receipt. In case of non-acceptance of this term bid will be rejected. (Refer clause no. 16 of GCC)	Select from drop down list	

**PART-I (TECHNO-COMMERCIAL BID)****(To be filled by bidder & submit with offer as pdf file only)****Tender Enquiry No. & Date****2526-077E Dated 31.12.2025****Tender Description****Purchase of HSFG Fasteners and Plain Chamfered Washers**

Bidder must note following points:

1. This workbook is protected, except for cells where comments / confirmation is to be given by bidder.
2. Bidder is advised not to unprotect / tamper the sheet / alter the terms mentioned in the sheet.
3. Any alteration to terms mentioned by BHEL will be considered as tampering and bidder's offer shall be liable for rejection.
4. **Bidders are advised to only fill the unprotected cells (shaded cells) by dropdown or writing the comments as applicable as their confirmation. Bidders are advised to submit duly filled & signed 'PDF' file as techno-commercial (Part-I) bid'. Failure on the part of bidder in not returning this duly filled-up techno-commercial bid and / or submitting incomplete replies may lead to rejection of bidder's quotation.**
5. All the commercial terms and conditions shall be indicated by vendor in this format only and nowhere else in his quotation. However, in case the space for vendor's reply is not sufficient against a particular question, the vendor shall furnish same by way of separate annexure / sheet attached to this questionnaire, indicating cross-reference of respective clauses.

19	LD clause: Penalty for late delivery will be applicable @ 0.5% per week or part thereof subject to a maximum of 10.0 %. (Refer clause no. 18 of General Contract conditions (GCC)).		Select from drop down list	
20	Make in India (MII) (Refer clause no. 20 of GCC)	Local Content Declaration	Select from drop down list	
		Details of location at which local value addition will be made is as follows:	Select from drop down list	
21	Certificate regarding Restrictions Under Rule 144(XI) of The GFR, 2017 (Refer clause no. 32 of GCC)	I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority. I hereby certify that this bidder fulfils all requirements in this regard and is eligible to be considered.	Select from drop down list	
22	Declaration regarding Insolvency/ Liquidation/ Bankruptcy proceedings (Refer clause no. 35 of GCC)	Bidder is not admitted under insolvency resolution process or liquidation under Insolvency and Bankruptcy Code, 2016, as amended from time to time or under any other law as on date, by NCLT or any adjudicating authority/authorities.	Select from drop down list	
23	I have thoroughly gone through the attached tender terms & conditions and understood the above techno-commercial requirements		Select from drop down list	
24	Rates quoted are Exclusive of taxes & FOR DESTINATION basis		Select from drop down list	
25	If there is any deviation in reference to any of the tender term, kindly mention it <b>HERE</b> only. <b>Deviation specified elsewhere, will not be considered.</b>		Select from drop down list	

**Item detail**

Item Sl. no.	Material Code	Description	Quantity, in Nos.	Quoted / not quoted	Remarks (if any)
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## PART-I (TECHNO-COMMERCIAL BID)

(To be filled by bidder & submit with offer as pdf file only)

**Tender Enquiry No. & Date**

**2526-077E Dated 31.12.2025**

**Tender Description**

**Purchase of HSFG Fasteners and Plain Chamfered Washers**

Bidder must note following points:

1. This workbook is protected, except for cells where comments / confirmation is to be given by bidder.
2. Bidder is advised not to unprotect / tamper the sheet / alter the terms mentioned in the sheet.
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4. Bidders are advised to only fill the unprotected cells (shaded cells) by dropdown or writing the comments as applicable as their confirmation. **Bidders are advised to submit duly filled & signed 'PDF' file as techno-commercial (Part-I) bid**. Failure on the part of bidder in not returning this duly filled-up techno-commercial bid and / or submitting incomplete replies may lead to rejection of bidder's quotation.
5. All the commercial terms and conditions shall be indicated by vendor in this format only and nowhere else in his quotation. However, in case the space for vendor's reply is not sufficient against a particular question, the vendor shall furnish same by way of separate annexure / sheet attached to this questionnaire, indicating cross-reference of respective clauses.

1	412413022000	M30x220 HSFG BOLTS & NUTS Grade 10.9	18,160	Select from drop down list	
2	412413624000	M36x240 HSFG BOLTS & NUTS Grade 10.9	4,800	Select from drop down list	
3	412413620000	M36x200 HSFG BOLTS & NUTS Grade 10.9	152	Select from drop down list	
4	412420010000	HSFG BOLTS & NUTS M30X130 SSFIT-001 REV0 (Hot Dip Galvanised)	12,300	Select from drop down list	
5	412420020000	HSFG BOLTS & NUTS M30X140 SSFIT-001 REV0 (Hot Dip Galvanised)	1,000	Select from drop down list	
6	412420040000	HSFG BOLTS & NUTS M36X230 SSFIT-001 REV0 (Hot Dip Galvanised)	2,400	Select from drop down list	
7	412420050000	HSFG BOLTS & NUTS M36X240 SSFIT-001 REV0 (Hot Dip Galvanised)	3,600	Select from drop down list	
8	412420060000	HSFG BOLTS & NUTS M36X250 SSFIT-001 REV0 (Hot Dip Galvanised)	2,000	Select from drop down list	
9	412420080000	HSFG BOLTS & NUTS M36X280 SSFIT-001 REV0 (Hot Dip Galvanised)	2,000	Select from drop down list	
10	414200070000	PLAIN CHAMFERED WASHER M30 SSFIT-001 (Hot Dip Galvanised)	14,300	Select from drop down list	
11	414200003600	PLAIN CHAMFERED WASHERM36 SSFIT-001 (Sherardized)	12,400	Select from drop down list	

Validate

Print

Help

**Item Wise BoQ**

Tender Inviting Authority: BHEL IVP Goindwal Sahib

Name of Work: Purchase of HSFG Fasteners and Plain Chamfered Washers

Contract No: 2526-077E dated 31.12.2025

Name of the  
Bidder/ Bidding  
Firm / Company  
:**PRICE SCHEDULE**

(This BOQ template must not be modified/replaced by the bidder and the same should be uploaded after filling the relevant columns, else the bidder is liable to be rejected for this tender. Bidders are allowed to enter the Bidder Name and Values only )

NUMBER #	TEXT #	TEXT #	NUMBER #	TEXT #	NUMBER #
Sl. No.	Item Description	Item Code / Make	Quantity	Units	BASIC RATE In Figures To be entered by the Bidder in Rs. Per piece
1	2	3	4	5	7
1	M30x220 HSFG BOLTS & NUTS Grade 10.9	412413022000	18,160	Number	
2	M36x240 HSFG BOLTS & NUTS Grade 10.9	412413624000	4,800	Number	
3	M36x200 HSFG BOLTS & NUTS Grade 10.9	412413620000	152	Number	
4	HSFG BOLTS & NUTS M30X130 SSFIT-001 REVO (Hot Dip Galvanised)	412420010000	12,300	Number	
5	HSFG BOLTS & NUTS M30X140 SSFIT-001 REVO (Hot Dip Galvanised)	412420020000	1,000	Number	
6	HSFG BOLTS & NUTS M36X230 SSFIT-001 REVO (Hot Dip Galvanised)	412420040000	2,400	Number	
7	HSFG BOLTS & NUTS M36X240 SSFIT-001 REVO (Hot Dip Galvanised)	412420050000	3,600	Number	
8	HSFG BOLTS & NUTS M36X250 SSFIT-001 REVO (Hot Dip Galvanised)	412420060000	2,000	Number	
9	HSFG BOLTS & NUTS M36X280 SSFIT-001 REVO (Hot Dip Galvanised)	412420080000	2,000	Number	
10	PLAIN CHAMFERED WASHER M30 SSFIT-001 (Hot Dip Galvanised)	414200070000	14,300	Number	
11	PLAIN CHAMFERED WASHERM36 SSFIT-001 (Sherardized)	414200003600	12,400	Number	

BHEL, Tiruchirappalli – 620014.	Quality Assurance	Technical Delivery Conditions
Product: <b>High Strength Friction Grip Fasteners For Structural (Property class Bolt 8.8, 10.9/Nut 8, 10)</b>		
Document No.: <b>TDC:5211</b>	Rev. No.: <b>02</b>	Effective date: <b>28/10/2014</b>
		Page 1 of 2

#### Revision record:

Rev 00: 18/10/2011 Fresh Issue released and Test Sampling Plan Rev 00

Rev 01: 19/04/2012 Cl 2: Requirement if the Carbon content is below 0.6% - Added for Bolts; Mn for Nuts: limited to 0.25 min instead of 0.25 max. Cl 5: Hardness of Bolt & Nut: Acceptance values changed. Cl 7: Preservation and Packing added and Test Sampling Plan Rev 01

Rev 02: 28/10/2014 Property class Bolt 10.9 and Nut 10 and its requirements added (for Neyveli 2x500MW Tower boiler) in all clauses and Test Sampling Plan Rev 02

#### 1. SCOPE:

This technical delivery condition covers the requirements for the High strength structural steel bolts, Nuts and Washers applicable for boiler structures and shall be procured from the BHEL approved manufacturers only. The mandatory requirements, test methods and procedures from the applicable IS standards to confirm a product to its relevant latest IS standard shall be met with. TDC is in addition to specification.

Size, Specification and Qty: As per the BHEL Purchase order (PO) / BHEL Drawing. The bolts, nuts and washers shall be supplied in the dull black heat treated condition with residual coating of light oil.

For Bolts: IS: 3757 (Latest) Property class: 8.8 or 10.9. Product Grade C of IS Specification IS: 1367 Part 2 (Latest).

For Nuts: IS: 6623 (Latest) Property class: 8 or 10, Product Grade B

For Washers: IS: 6649 (Latest) Material: 45C8, Type-A: Plain hole Circular Washers. Grade: Ordinary

#### 2. RAW MATERIAL:

- Bolts and Nuts: Rolled/Forged bar of Carbon steel. Washer: as per IS 1571 Part 2 (Latest)
- **Chemical composition:** Shall be checked on receipt of raw material at supplier works for every heat  
Bolts: Plain Carbon Steel, Carbon steel with additives (eg Br, Mn or Cr) – As per Table 2 of IS: 1367 Part 3 (Latest)  
Nuts: As per Table 4 of IS 1367 Part 6 (Latest)  
Washers: As per IS 1570 Part 2 and Sulphur, Phosphorous <0.06% in check analysis

#### 3. DIMENSIONS AND TOLERANCES:

- Process: Cold/Hot Forging with Dies and tools clean of loose scale and sheet particles.
- Threads on the bolts shall be checked with a properly calibrated ring gauge with a tolerance class 6g. Threads on the nuts shall be checked with a properly calibrated plug gauge with tolerance class 6H (in an NABL accredited LAB).
- Dimensions of the Bolts shall be as per the table given in IS 3757 (Latest)
- Dimensions of the Nuts shall be as per the table given in IS: 6623 (Latest)
- Dimensions of the Washers shall be as per the table given in IS 6649 (Latest)

**Note:** The washers shall be flat with a maximum deviation not exceeding 0.25 mm from the straight edge laid along a line passing through the center of the hole. The hole of the washer shall be concentric with the outside dimensions within 0.50 mm. washers are required to be clipped to provide clearance, the clipped edge shall not be closer to the center of the washer than 0.9 of the bolt diameter.

#### 4. Post Forming Heat Treatment (HT):

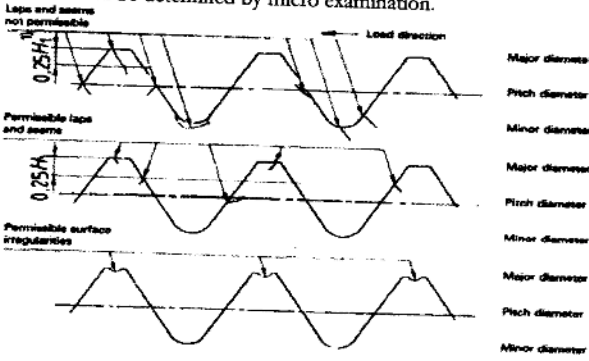
- Bolt: After forming shall be quenched (HT at AC 3 temperature, with soaking time 30minutes per inch followed by quenching) and tempered (at 425°C min, 60 minutes per inch). There should be a sufficient hardenability to ensure a structure consisting of approximately 90 % martensitic in the core of the threaded sections for the fasteners in the as-hardened condition before tempering.
- Nut: Shall be hardened and then tempered (at a temperature of 425°C minimum).
- Washer: Shall be hardened and tempered. Carburized washers are not permitted.

#### 5. CHEMICAL & MECHANICAL & NDE: (on Heat Treated finished product)

Sample Size for Mechanical test: & NDE: As per Sampling Plan

#### BOLT :

Sl	Test	Test Method - As per Table 3 of IS: 1367 Part 3 (Latest)	Acceptance
1	Chemistry	Spectro / Wet Analysis Method – One sample for every heat Of raw material and One sample/HT batch on product	As per Cl 2.0 of this TDC
2	Hardness Test	Note: Surface hardness shall not be more than 30 Vickers above the measured core Hardness on the product when readings of both surface and core are carried out at HV 0.30. For property class 10.9, any increase in hardness at the surface which indicates that the surface hardness exceeds 390 HV is not acceptable.	8.8 – Min 255 HV Max 335 HV 10.9 – Min 320HV, Max 380HV
3	Minimum Tensile Strength, %Elongation on 5.65VA, % Reduction in Area after fracture	*if wedge load test is satisfactory the axial tensile test is not required	8.8 – 830N/mm <sup>2</sup> , 12 min, 52% min 10.9 – 1040 N/mm <sup>2</sup> , 9 min, 48% min
4	Proof Load Test	8.8 – Proof Load of M16(91KN), M20 (147KN), M24 (212KN), M30 (337KN), M36 (490KN); 10.9 – Proof Load of M16(130KN), M20 (203KN), M24 (293KN), M30 (466KN), M36 (678KN) shall be applied axially to the bolt in a calibrated tensile testing machine for 15sec.	Length of the bolt after loading shall be the same as before loading within a tolerance of $\pm 12.5 \mu\text{m}$ allowed for measurement error.
5	Strength under Wedge load test	IS: 1367 Part 3 (Latest)	8.8 – $\leq 830\text{N/mm}^2$ 10.9 – $\leq 1040 \text{N/mm}^2$
6	Decarburization Test at 200X min magnification	Determination of the following by MICROSCOPIC Method a)Minimum Height of non decarburized thread zone – E b)Maximum depth of complete decarburization – G	E = 2/3 H1 G = 0.015 mm
7	Hardness after Retempering	IS: 1367 Part 3 (Latest) # test not mandatory, to be applied in case of dispute only	Reduction of hardness 20 HV max.
8	NDE for Surface Integrity	<b>before machining –</b> For bar Diameter $\geq 40 \text{ mm}$ : UT as per ASTM A388. For bar Diameter $< 40 \text{ mm}$ : MPI as per ASTM E 709 <b>After machining –</b> MPI as per ASTM E 709 or as per ISO 6157 Part 3 (Latest)	UT – ASME SEC-VIII. Div-II Part: 3.3.4 (Latest). MPI – Linear indications like cracks, folds & other injurious defects are not acceptable.

9	Micro Examination for Surface Integrity – Laps at threaded region.	<p>If any defectives found in visual and NDE examinations, the extent of defect can be determined by micro examination.</p> 	<p>Max depth of laps in thread = 0.41 mm Laps of any depth or length are not permitted in the following places:</p> <ul style="list-style-type: none"> <li>at the root of the thread</li> <li>at the loaded flank of screw thread below the pitch diameter, even if they start beyond the pitch diameter.</li> </ul> <p>The following laps are permissible:</p> <ul style="list-style-type: none"> <li>laps in the crest of the threads of 0.25 H1 max;</li> <li>crest of the threads not entirely rolled out, maximum half a turn on one thread;</li> <li>laps below the pitch diameter, if they run on the non-loaded flank towards the major diameter and not deeper than 0.25 H1 and not longer than half a turn on one thread.</li> </ul>
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**NUT: (on Heat Treated finished product)**

Sl	Test	Test Method	Acceptance Value
1.	Chemistry	Spectro / Wet Analysis Method – For every heat Of raw material and, One sample/HT batch on product	As per CI 2.0 of this TDC
2.	Hardness Test	Hardness of the test mandrel shall be minimum 45 HRC.	8S – Min 188 HV Max 372 HV 10S – Min 272 HV Max 372 HV
3.	Proof Load Test	Proof Load of 8S – M16(168.9KN), M20 (263.4KN), M24 (379.5KN), M30 (603.1KN), M36 (878.3KN) 10S – M16(195.5KN), M20 (305KN), M24 (439.5KN), M30 (698.4KN), M36 (1017.2KN) shall be applied axially to the nut in a tensile testing machine for 15sec.	The nut shall resist the load without failure by stripping or rupture, and shall be removable by the fingers after the load is released.
4.	NDE for Surface Integrity	Before coating, as per IS 1367 Part 10 Cl 4.2 (Latest)	Linear indications like cracks, folds & Other injurious defects are not acceptable.

**WASHER:** As per IS 5369. The washers shall be free from cracks, burrs, pits and other defects. All sharp edges shall be removed. **(on Heat Treated finished product)**

Sl	Test	Test Method	Acceptance Value
1.	Chemistry	Spectro / Wet Analysis Method – For every heat Of raw material and One sample/HT batch on product.	As per CI 2.0 of this TDC
2.	Hardness Test	IS 1586 (latest)	Min 35 HRC Max 45 HRC

**6. MARKING, PRESERVATION AND PACKING:**

The following to be hot stamped or embossed on the top surface of the bolt and nut:

Bolt – Manufacturer's Identification Symbol and 8.8S/10.9S

Nut – Manufacturer's Identification Symbol and 8S/ 10S

Washers – Shall be identified by – the provision of 2 nibs and manufacturers identification symbol being placed as near to the outer edge as possible.

The following details shall be clearly indicated in the tags tied to the bundle:

- Customer Name
- Manufacturer's Name
- Vendor Code
- Purchase Order No and Supplier internal W.O No
- Quantity and Weight
- BHEL Material Code
- Item Description with diameter, length

Shall be packed in bituminous coated Polythene lined Hessian Cloth/Bag. Each bag shall contain only the same size of bolts/ nuts/ washers respectively and the same shall be indicated in the tags.

**7. INSPECTION AND CERTIFICATION:**

All the finished components shall be visually and dimensionally inspected as per sampling plan. All the test results shall be documented and maintained. Products to be inspected at works & test certificates (in English) shall be submitted with the following details counter signed by BHEL/BHEL Authorized Inspection agency as indicated in the PO. Manufacturers Test certificate (MTC) shall contain the following:

- Purchase Order No. (BHEL), TDC No, Specification and Grade.
- Name of raw material bar supplier.
- Forming process
- Dimensional reports for each product.
- Chemistry including incidental elements on the raw material and final product checked in NABL lab/ suppliers own lab.
- HT details of materials temperature, soaking time, ROH/ROC medium etc.
- All Mechanical test result report including hardness.
- MPL, Micro examination and decarburization test report with the reference & acceptance standard.
- TC of raw material, UT/MPI report done on raw material shall accompany the MTC.

**8. AUDITS AT BHEL:**

BHEL reserve the right to reject any item found to be not meeting the requirements during tests at supplier works or during subsequent processing at BHEL.

Haritha.C QA	Venkanna Rupani QA	Kalyanaraman.V QA	Viswanathan.D Engineering	Sekar.S QC	Balachandran.K.S MM	Revisankaran.U QA
Prepared By			Reviewed By			Approved By

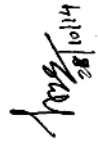



# BHEL: TRICHY - 14

## TEST SAMPLING PLAN FOR HSFG BOLTS, NUTS & WASHERS AS PER BHEL TDC: 5:211 Rev 02

Lot Size (In nos.)	SAMPLE SIZE										Remarks
	Visual (nos.)	Dimensional (nos.)	MPI (nos.)	Physical Tests						Decarb (nos.)	
				Total nos.	Hardness (nos.)	Hardness after Re-tempering (nos.)	Proof Load (nos.)	Wedge Load (nos.)	Min Tensile Strength (nos.)		
Upto 100	20	8	15	5	5	5	2	2	2	1	Upto 1500 nos. 15 nos. for MPI
101 to 300	32	13	15	5	5	5	2	2	2	1	
301 to 500	50	20	15	5	5	5	2	2	2	1	
501 to 1000	80	32	15	5	5	5	2	2	2	1	
1001 to 3000	125	50	25	8	8	8	2	4	2	1	
3001 to 10000	200	80	50	13	13	13	2	6	2	1	Upto 15000 nos. 50 nos. for MPI
10001 to 35000	315	125	75	20	20	20	4	10	4	2	Upto 50000 nos. 75 nos. for MPI
Above 35000	500	200	100	32	32	32	6	15	6	3	Upto 50000 nos. 75 nos. for MPI
Inspection by BHEL/BHEL AIA	W	W	W	W	W	W	W	W	W	W	

### Remarks:

- Acceptance Number is zero. If the sample is having deviations in Visual, Dimensional and MPI then the entire lot shall be 100% inspected. In case of deviations in Physical tests a second sample of twice the sample size of initial sample shall be taken. The lot will get rejected if the second sample fails.
- Preservation & Packing: The bolts shall be supplied in the dull black heat treated condition with a residual coating of light oil. Finished products shall be packed in a bituminous coated Polythene lined Hessian cloth/bag. Each bag shall contain only the same size of bolts/nuts/washers respectively and the same shall be indicated in the tags.
- Inspection by BHEL / BHEL AIA shown as "W" shall be witnessed for the sample size indicated against the lot size.

	R. Sekaran 28/10/2014			
Haritha.C QA	Venkanna Rupani QA	Kalyanarman.V QA	Sekar.S QC	Revisankaran.U QA
Prepared By		Reviewed By		Approved By



**BHARAT HEAVY ELECTRICALS LIMITED**  
**TIRUCHIRAPPALLI-620 014**

**SUPPORTING STRUCTURES/PE(FB)**



**Title Sheet**

**Specification for**

**HEXAGON FIT BOLT, NUT ASSEMBLIES AND PLAIN CHAMFERED  
WASHERS**

**Specification Number: SSFIT-001**

**Revision No. : 00**

Rev.	Revision	Revision statement	Checked &
No.	Date		Approved

	<i>Name</i>	<i>Signature</i>	<i>Date</i>
Prepared	HARIKRISHNA.T		04-06-2015
Checked	D.VISWANATHAN		05-06-2015
Approved	N.MURUGAN		06-06-2015

## **HEXAGON FIT BOLT, NUT ASSEMBLIES AND PLAIN CHAMFERED WASHERS**

### **1.0 SCOPE**

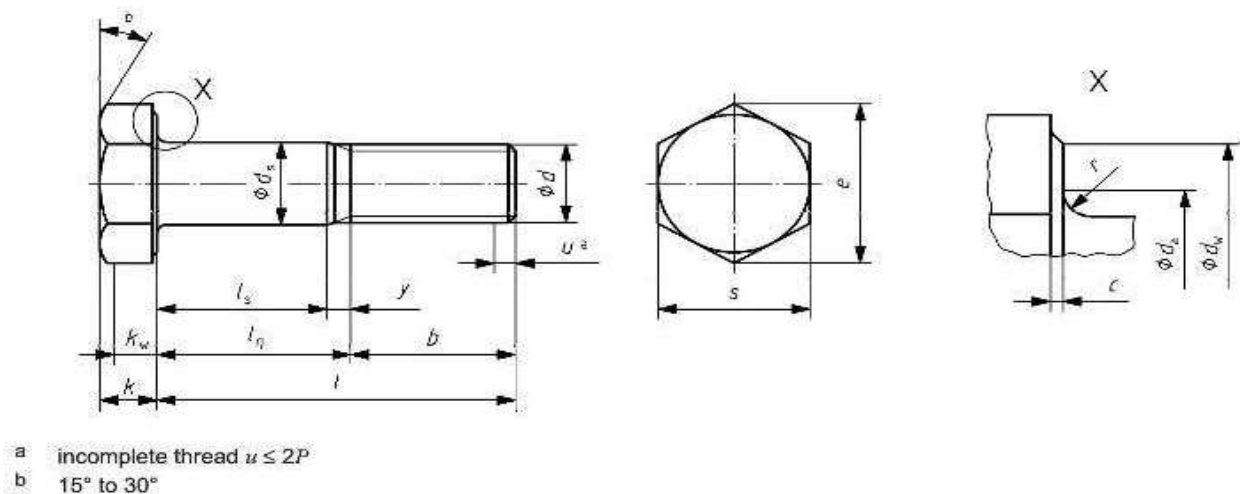
Covers the requirements of Hexagon fit bolt, Nut and Plain chamfered washer.

### **2.0 REFERRED STANDARD FOR HEXAGON FIT BOLT (CURRENT VERSION IS APPLICABLE)**

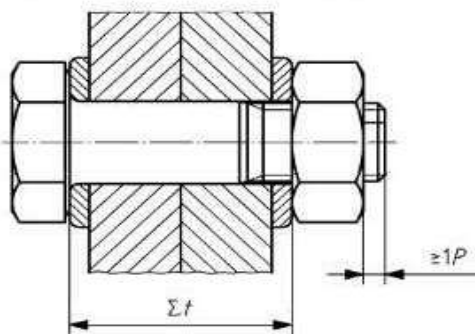
BS EN 14399-8: 2007 High-strength structural bolting assemblies for preloading – Part 8:  
System HV – Hexagon fit bolt and nut assemblies

### **2.1 DIMENSIONS OF FIT BOLTS**

Dimensions see Figure 1 and Table 1, clamp length see Figure 2 and Table 2.



**Figure 1 — Dimensions of fit bolts**



**Figure 2 — Clamp length  $\Sigma t$**

Table 1 --- Dimensions of fit bolts <sup>a</sup>

Dimensions in millimetres									
Thread <i>d</i>		M12	M16	M20	M22	M24	M27	M30	M36
<i>p<sup>b</sup></i>		1,75	2	2,5	2,5	3	3	3,5	4
<i>b</i>	(ref.)	23	28	33	34	39	41	44	52
<i>c</i>	min.	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4
	max.	0,6	0,6	0,8	0,8	0,8	0,8	0,8	0,8
<i>d<sub>a</sub></i>	max.	15,2	19,2	24	26	28	32	35	41
<i>d<sub>s</sub></i>	nom.	13	17	21	23	25	28	31	37
	min. <sup>c</sup>	12,74	16,74	20,71	22,71	24,71	27,71	30,67	36,67
	max. <sup>c</sup>	12,85	16,85	20,84	22,84	24,84	27,84	30,83	36,83
<i>d<sub>w</sub></i>	min.	20,1	24,9	29,5	33,3	38,0	42,8	46,6	55,9
	max.	d	d	d	d	d	d	d	d
<i>e</i>	min.	23,91	29,56	35,03	39,55	45,20	50,85	55,37	66,44
<i>k</i>	nom.	8	10	13	14	15	17	19	23
	min.	7,55	9,25	12,1	13,1	14,1	16,1	17,95	21,95
	max.	8,45	10,75	13,9	14,9	15,9	17,9	20,05	24,05
<i>k<sub>w</sub></i>	min.	5,28	6,47	8,47	9,17	9,87	11,27	12,56	15,36
<i>r</i>	min.	1,2	1,2	1,5	1,5	1,5	2	2	2
<i>s</i>	max.	22	27	32	36	41	46	50	60
	min.	21,16	26,16	31	35	40	45	49	58,8
<i>y</i>	max.	6,5	7,5	8,5	8,5	10,0	10,0	11,5	13,0

Table 1 (continued)

Dimensions in millimeters

Tread <i>d</i>			M12		M16		M20		M22		M24		M27		M30		M36	
<i>l</i>			<i>l<sub>s</sub><sup>f</sup> and l<sub>g</sub><sup>e</sup></i>															
			<i>l<sub>s</sub></i> min.	<i>l<sub>g</sub></i> max.	<i>l<sub>s</sub></i> min.	<i>l<sub>g</sub></i> max.	<i>l<sub>s</sub></i> min.	<i>l<sub>g</sub></i> max.	<i>l<sub>s</sub></i> min.	<i>l<sub>g</sub></i> max.	<i>l<sub>s</sub></i> min.	<i>l<sub>g</sub></i> max.	<i>l<sub>s</sub></i> min.	<i>l<sub>g</sub></i> max.	<i>l<sub>s</sub></i> min.	<i>l<sub>g</sub></i> max.	<i>l<sub>s</sub></i> min.	<i>l<sub>g</sub></i> max.
nom.	min.	max.																
50	48,75	51,25	20,5	27														
55	53,5	56,5	25,5	32														
60	58,5	61,5	30,5	37														
65	63,5	66,5	35,5	42	29,5	37												
70	68,5	71,5	40,5	47	34,5	42												
75	73,5	76,5	45,5	52	39,5	47	33,5	42										
80	78,5	81,5	50,5	57	44,5	52	38,5	47	37,5	46								
85	83,25	86,75	55,5	62	49,5	57	43,5	52	42,5	51								
90	88,25	91,75	60,5	67	54,5	62	48,5	57	47,5	56	41	51						
95	93,25	96,75	65,5	72	59,5	67	53,5	62	52,5	61	46	56	44	54			30	43
100	98,25	101,75			64,5	72	58,5	67	57,5	66	51	61	49	59			35	48
105	103,25	106,75			69,5	77	63,5	72	62,5	71	56	66	54	64	49,5	61	40	53
110	108,25	111,75			74,5	82	68,5	77	67,5	76	61	71	59	69	54,5	66		
115	113,25	116,75			79,5	87	73,5	82	72,5	81	66	76	64	74	59,5	71		
120	118,25	121,75			84,5	92	78,5	87	77,5	86	71	81	69	79	64,5	76		
125	123	127			89,5	97	83,5	92	82,5	91	76	86	74	84	69,5	81	60	73
130	128	132					88,5	97	87,5	96	81	91	79	89	74,5	86	65	78
NOTE      The popular lengths are defined in terms of lengths <i>l<sub>s</sub> min</i> and <i>l<sub>g</sub> max</i> .																		
a    For hot-dip galvanized bolts, the dimensions apply before galvanizing.																		
b <i>P</i> is the pitch of thread.																		
c    Corresponding to tolerance class b11.																		
d <i>d<sub>w</sub> max.</i> = <i>S<sub>actual</sub></i>																		
e <i>l<sub>g</sub> max.</i> = <i>l<sub>nom.</sub></i> - <i>b</i>																		
f <i>l<sub>s</sub> min.</i> = <i>l<sub>g</sub> max.</i> - <i>y<sub>max</sub></i>																		

**Table 2 – Clamp length  $\sum t$  <sup>a</sup>**

Dimension in millimeters																		
Tread d			M12		M16		M20		M22		M24		M27		M30		M36	
$l$			$\sum t_{\min}^b$ and $\sum t_{\max}^c$															
nom.	min.	max.	min.	max	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.
50	48,75	51,25	31	36														
55	53,5	56,5	36	41														
60	58,5	61,5	41	46														
65	63,5	66,5	46	51	42	47												
70	68,5	71,5	51	56	47	52												
75	73,5	76,5	56	61	52	57	48	53										
80	78,5	81,5	61	66	57	62	53	58	52	57								
85	83,25	86,75	66	71	62	67	58	63	57	62								
90	88,25	91,75	71	76	67	72	63	68	62	67	59	64						
95	93,25	96,75	76	81	72	77	68	73	67	72	64	69	61	66			51	60
100	98,25	101,75			77	82	73	78	72	77	69	74	66	71			56	65
105	103,25	106,75			82	87	78	83	77	82	74	79	71	76	69	74	61	70
110	108,25	111,75			87	92	83	88	82	87	79	84	76	81	74	79		
115	113,25	116,75			92	97	88	93	87	92	84	89	81	86	79	84		
120	118,25	121,75			97	102	93	98	92	97	89	94	86	91	84	89		
125	123	127			102	107	98	103	97	102	94	99	91	96	89	94	83	88
130	128	132					103	108	102	107	99	104	96	101	94	99	88	93
NOTE      The popular lengths are defined in terms of lengths $\sum t_{\min}$ and $\sum t_{\max}$ .																		
<div><sup>a</sup> For proper function of the proloaded bolted joint the following condition for the clamp length <math>\sum t</math> shall be fulfilled:</div> <div><math>(l_{g \max} + 2P) &lt; \sum t &lt; (l_{\min} - P - m_{\max})</math>, where <math>P</math> is the pitch of thread and <math>m_{\max}</math> is the maximum nut height according to Table 5.</div> <div>The values of <math>\sum t_{\min}</math> and <math>\sum t_{\max}</math> specified in Table 3 are within this range.</div> <div>The <math>\sum t_{\max}</math> values are specified on the condition that the minimum bolt protrusion beyond the unloaded nut face shall be <math>1 P</math>.</div>																		

## 2.2 SPECIFICATION FOR BOLTS AND REFERENCE STANDARDS

Hexagon fit bolt shall be hot dip galvanized.

**Table 3 --- Specifications for bolts and reference standards**

<b>Material</b>		Steel
<b>General requirements</b>		EN 14399-1 <sup>a</sup>
<b>Thread</b>	Tolerance	6g <sup>b</sup>
	International Standards	ISO 261, ISO 965-2
<b>Mechanical properties</b>	Property class	10.9
	European Standard	EN ISO 898-1
<b>Impact strength</b>	Value	$K_{V,min} = 27 \text{ J at } -20^{\circ}\text{C}$
	Test specimen <sup>c</sup>	ISO 148-1
	Test	EN 10045-1
<b>Tolerances</b>	Product grade	C except: dimension $e$  Tolerance for lengths $\geq 155 \text{ mm}$ : $+0.17$ $-0.51$
	International Standard	EN ISO 4759-1
<b>Surface finish<sup>d</sup></b>	normal	as processed <sup>e</sup>
	hot dip galvanized	EN ISO 10684
	others	to be agreed <sup>f</sup>
<b>Surface discontinuities</b>		Limits for surface discontinuities are covered in EN 26157-1.
<b>Acceptability</b>		For acceptance procedure, see EN ISO 3269.
<sup>a</sup> For the time being EN 14399-1 refers only to EN 14399-3 and EN 14399-4 as far as dimensions and mechanical characteristics of the components and functional characteristics of the assemblies are concerned. Such references shall also apply to EN 14399-8.		
<sup>b</sup> The tolerance class specified applies without surface finish. Hot-dip galvanized bolts are intended for assembly with oversize tapped nuts.		
<sup>c</sup> The preparation of the test specimens with V-notch in the fastener shall be as specified in EN ISO 898-1.		
<sup>d</sup> Attention is drawn to the need to consider the risk of hydrogen embrittlement in the case of bolts of property class 10.9, when selecting an appropriate surface treatment process (e.g. cleaning and coating), see the relevant coating standards.		
<sup>e</sup> "As processed" means the normal finish resulting from manufacture with a light coating of oil.		
<sup>f</sup> Other coatings may be negotiated between the purchaser and the manufacturer provided they do not impair the mechanical properties or the functional characteristics. Coatings of cadmium or cadmium alloys are not permitted.		

## 2.3 MARKING OF HEXAGON FIT BOLTS

High-strength structural bolts according to this specification shall be marked with:

- a) Property class marking in accordance with EN ISO 898-1 and the letters HVP.

EXAMPLE 1      10.9 HVP

- b) The identification mark of the manufacturer of the assembly.  
It is permissible for the marking to be either embossed or indented on the top surface of the head.

EXAMPLE 2      of bolt marking (see Figure 3):

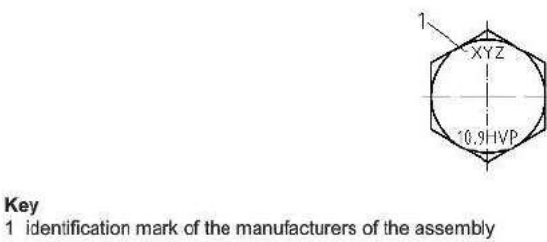


Figure 3 — Example for marking of a bolt

3.0      **REFERRED STANDARD FOR NUT ASSEMBLIES (CURRENT VERSION IS APPLICABLE)**

BS EN 14399-4: 2015 High-strength structural bolting assemblies for preloading – Part 4: System HV – Hexagon bolt and nut assemblies.

3.1      **DIMENSIONS OF NUTS**

Dimensions see Figure 4 and Table 4.

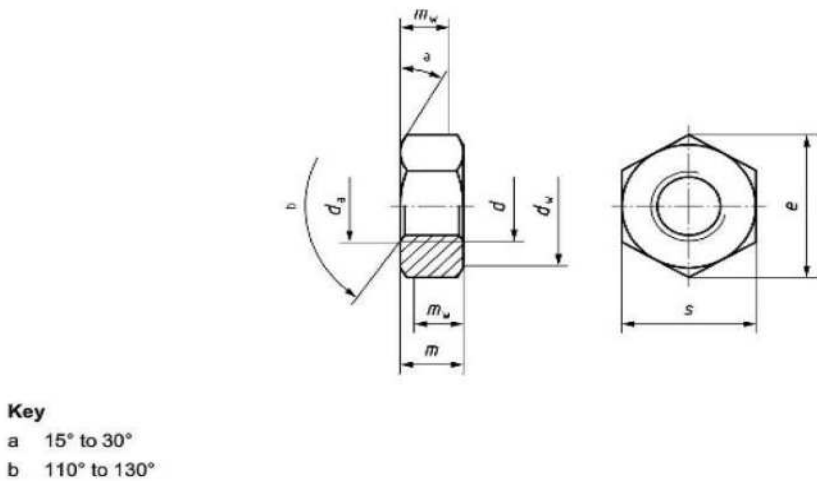


Figure 4 --- Dimensions of nuts



Table 4 --- Dimensions of nuts <sup>a</sup>

Dimensions in millimetres

Thread ( <i>d</i> )	M12	M16	M20	M22	M24	M27	M30	M36	
<i>P</i> <sup>a</sup>	1,75	2	2,5	2,5	3	3	3,5	4	
<i>d<sub>a</sub></i>	max.	13,0	17,3	21,6	23,7	25,9	29,1	32,4	38,9
	min.	12	16	20	22	24	27	30	36
<i>d<sub>w</sub></i>	max.	<sup>b</sup>	<sup>b</sup>	<sup>b</sup>	<sup>b</sup>	<sup>b</sup>	<sup>b</sup>	<sup>b</sup>	<sup>b</sup>
	min.	20,1	24,9	29,5	33,3	38,0	42,8	46,6	55,9
<i>e</i>	min.	23,91	29,56	35,03	39,55	45,20	50,85	55,37	66,44
<i>m</i>	nom. = m ax.	10	13	16	18	20	22	24	29
	min.	9,64	12,30	14,90	16,90	18,70	20,70	22,70	27,70
<i>m<sub>w</sub></i>	min.	7,71	9,84	11,92	13,52	14,96	16,56	18,16	22,16
<i>s</i>	max.	22	27	32	36	41	46	50	60
	min.	21,16	26,16	31,00	35,00	40,00	45,00	49,00	58,80

<sup>a</sup> *P* is the pitch of thread.

<sup>b</sup> *d<sub>w,max</sub>* = *s<sub>actual</sub>*

### 3.2 SPECIFICATION FOR NUTS AND REFERENCE STANDARDS

Nut assemblies shall be hot dip galvanized.

Table 5 --- Specification for nuts and reference standards

Material		Steel		
General requirements		EN 14399-1 and EN 14399-2		
Thread	Coating of the bolt	Uncoated	Hot dip galvanized	Others
	Tolerance class of the nut	6H	6AZ	6H <sup>a</sup>
	International Standards	ISO 261, ISO 965-2	ISO 261, ISO 965-5	ISO 261, ISO 965-2, ISO 965-5
Mechanical properties	Property class	10		
	European Standard	EN ISO 898-2		
Tolerances	Product grade	B		
	European Standard	EN ISO 4759-1		
Finish — Coating	Uncoated	As processed <sup>b</sup>		
	Hot dip galvanized	EN ISO 10684		
	Others	to be agreed <sup>c</sup>		
Surface integrity		Limits for surface discontinuities as specified in EN ISO 6157-2.		
Acceptability		For acceptance procedure, see EN ISO 3269.		

<sup>a</sup> For other coatings that need an increased fundamental deviation and according to the relevant standard, oversize tapped nuts with a thread tolerance class up to 6AZ may be used.

<sup>b</sup> "As processed" means the normal finish resulting from manufacture with a light coating of oil.

<sup>c</sup> Other coatings may be negotiated between the purchaser and the manufacturer provided they do not impair the mechanical properties or the functional characteristics. Coatings of cadmium or cadmium alloys are not permitted.

### 3.3 DECARBURIZATION OF THE NUT THREAD

The decarburization of the nut thread, when measured in analogy to external threads as given in EN ISO 898-1, shall not exceed  $G = 0,015\text{mm}$ .

### 3.4 MARKING OF NUTS

High-strength structural nuts according to this specification shall be marked with:

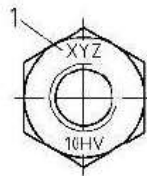
- a) Property class marking in accordance with EN 20898-2 and the letters HV.

EXAMPLE 1      10 HV

- b) The identification mark of the manufacturer of the assembly.

The marking shall be indented on either bearing face.

EXAMPLE 2      of nut marking (see Figure 5):



**Key**

1 identification mark of the manufacturer of the assembly

**Figure 5 — Example for marking of a nut**

## 4 DESIGNATION OF THE FIT BOLT / NUT ASSEMBLY

EXAMPLE 1      Designation of an assembly for high strength structural bolting, system HV, consisting of a hexagon fit bolt with large width across flats, with thread M16, nominal length  $l = 80$  mm and property class 10.9 and a hexagon nut with large width across flats, with thread M16 and property class 10:

**Hexagon fit bolt/nut assembly EN 14399-8 --- M16 x 80 --- 10.9/10 --- HVP**

If surface finishes other than “as processed” are required, the specified surface finish shall be added to the designation.

EXAMPLE 2      Designation of a hexagon fit bolt with large width across flats, with thread M16, nominal length  $l = 80$  mm and property class 10.9:

**Hexagon fit bolt EN 14399-8 --- M16 x 80 --- 10.9 --- HVP**

## 5 REFERRED STANDARD FOR PLAIN CHAMFERED WASHERS (CURRENT VERSION IS APPLICABLE)

BS EN 14399-6: 2015 High-strength structural bolting assemblies for preloading – Part 6: Plain chamfered washers

### 5.1 DIMENSIONS OF PLAIN CHAMFERED WASHERS

Dimensions see Figure 6 and Table 6.

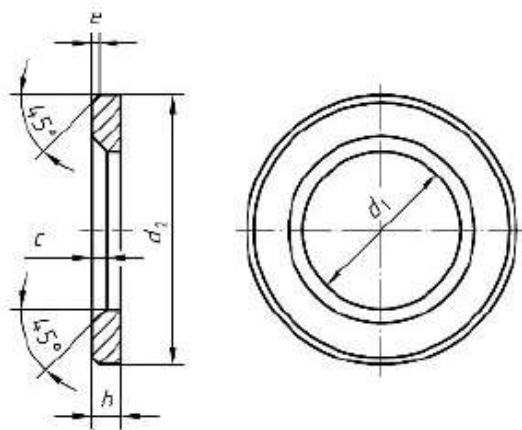


Figure 6 --- Dimensions

For coated washers the above dimensions apply prior to coating.

Table 6 --- Dimensions

Nominal size		Dimensions in millimetres									
$d$ (nominal thread diameter of associated bolts)		12	(14) <sup>a</sup>	16	(18) <sup>a</sup>	20	22	24	27	30	36
$d_1$	min.	13	15	17	19	21	23	25	28	31	37
	max.	13,27	15,27	17,27	19,33	21,33	23,33	25,33	28,52	31,62	37,62
$d_2$	min.	23,48	27,48	29,48	33,38	36,38	38,38	43,38	49,00	54,80	64,80
	max.	24	28	30	34	37	39	44	50	56	66
$h$	nom.	3	3	4	4	4	4	4	5	5	6
	min.	2,7	2,7	3,7	3,7	3,7	3,7	3,7	4,4	4,4	5,4
	max.	3,3	3,3	4,3	4,3	4,3	4,3	4,3	5,6	5,6	6,6
$e$	nom. = min.	0,5	0,5	0,75	0,75	0,75	0,75	0,75	1	1	1,25
	max.	1,0	1,0	1,5	1,5	1,5	1,5	1,5	2,0	2,0	2,5
$c$	min.	1,6	1,6	1,6	2,0	2,0	2,0	2,0	2,5	2,5	2,5
	max.	1,9	1,9	1,9	2,5	2,5	2,5	2,5	3,0	3,0	3,0

<sup>a</sup> Sizes in brackets are non-preferred sizes.

## 5.2 SPECIFICATION AND REFERENCE STANDARDS FOR PLAIN CHAMFERED WASHERS

Plain chamfered washers shall be hot dip galvanized.

**Table 7 --- Specification and reference standards for plain chamfered washers**

<b>Material</b>	Steel
<b>General requirements</b>	EN 14399-1 and EN 14399-2
<b>Mechanical properties</b> Hardness range	300 HV to 370 HV
<b>Tolerances</b> Product grade	A
European Standard	EN ISO 4759-3
<b>Finish — Coating<sup>a</sup></b> Uncoated	as processed <sup>b</sup>
Hot dip galvanized	EN ISO 10684
Others	to be agreed <sup>c</sup>
<b>Workmanship</b>	Parts shall be uniform and free of irregularities or detrimental defects. No protruding burrs shall appear on the washer.
<b>Acceptability</b>	For acceptance procedure, see EN ISO 3269.
<sup>a</sup> Attention is drawn to the need to consider the risk of hydrogen embrittlement when selecting an appropriate surface treatment process (e.g. cleaning and coating), see the relevant coating standards. <sup>b</sup> "As processed" means the normal finish resulting from heat treatment with a light coating of oil. <sup>c</sup> Other coatings may be negotiated between the purchaser and the manufacturer provided they do not impair the mechanical properties or the functional characteristics. Coatings of cadmium or cadmium alloys are not permitted.	

## 5.3 DESIGNATION

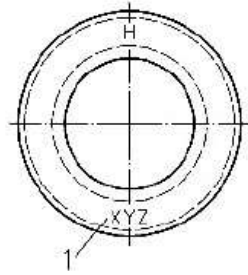
**EXAMPLE** A hardened and tempered chamfered plain washer for high-strength structural bolting for preloading, of nominal size  $d = 16$  mm, with hot dip galvanized coating(tZn), is designated as follows:

**Washer EN 14399-6 --- 16 --- tZn**

## 5.4 MARKING

Hardened and tempered chamfered washers shall be marked with at least the manufacturer's trade (identification) mark and the letter H. The manufacturer may decide to mark washers with HR or HV (instead of H marking) when they are supplied as component of bolting assemblies of system HR or HV respectively.

The marking shall be indented on the non-chamfered side.



**Key**

- 1 identification mark of the manufacturer of the assembly


**Figure 7 --- Example of marking**

**NOTE:**


Please get quality plan from vendors/suppliers.

**Technical information For Fit bolt sizes not available in document SSFIT-001 Rev.0**

Size	$l_{nom.}$	$b$	$y_{max.}$	$l_{g\ max.}$ and $l_{s\ min.}$	Remarks
M30	140 /150	44	11.5	$l_{g\ max.} = l_{nom.} - b$ $l_{s\ min.} = l_{g\ max.} - y_{max.}$	Refer Note-e, f of Table-1 of SSFIT-001 Rev.0
M36	230 / 240/ 250/ 260 / 280	52	13.0		


		<b>BHEL: IVP Goindwal</b>  <b>Quality Assurance</b>		<b>STANDARD QUALITY PLAN</b> <b>Item: HSFG Fasteners (Bolts, Nuts and washers)</b>			QP No	SQP:HSFG:001		
							Rev	3		
							Date	18.11.2025		
							Page	1 of 3		
SN	Component & Operation	Characteristics	Type of Check	Quantum of check	Reference Document	Acceptance Norm	Format of Record	Agency		Remarks
								M	B	
1.0	<b>Raw material</b>									
1.1	Raw material	Chemical & Mechanical	TC verification	100%	BHEL Specification (TDC, Drawing & PO)		TC	V	V	
2.0	<b>In Process</b>									
2.1	Machining and Heat Treatment: NDE(UT/MPI)	Dimension, Temperature, Time, Medium, HT Chart, NDE	Report Review	100%	DO		R	P	V	NDE in Raw Material
3.0	<b>Final Inspection (*)</b>									
3.1	Visual & Dimension (*)	Visual, Dimension, thread & Marking (identification & colour coding)	Measurement/ Thread gauge	Sampling plan (*)	DO		R	P	W	(*) BHEL/BHEL TPIA will witness final inspection in supplier works or NABL approved Lab as per TDC to be followed. (#) For nut only hardness test and Proof load tet. For washers, hardness test only. Hardness after re-tempering in case of dispute
3.2	Mechanical testing (*,#)	Mechanical (Hardness, Strength under wedge load test, Minimum Tensile strength, Proof load test, Decarburization test, Hardness after re-tempering)	Testing	DO	DO		R	P	W	
3.3	Chemical (*)'	Chemical composition (refer note 2))	Testing	DO	DO		R	P	W	
3.4	NDE (*)	Surface quality	Testing (visual & MPI)	DO	DO		R	P	W	
3.5	Preservation	Preservation (rust preventive fluid)	Visual check		DO		TC	P	V	refer BHEL specification no PR:CHEM:09-04 (latest revision)

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		<b>BHEL: IVP Goindwal</b>  <b>Quality Assurance</b>	<b>STANDARD QUALITY PLAN</b> <b>Item: HSFG Fasteners (Bolts, Nuts and washers)</b>				QP No	SQP:HSFG:001		
							Rev	3		
							Date	18.11.2025		
							Page	2 of 3		
SN	Component & Operation	Characteristics	Type of Check	Quantum of check	Reference Document	Acceptance Norm	Format of Record	Agency		Remarks
3.6	Packing	Packing and Marking	Verification			DO	R	P	V	
3.7	Applicable only for HSFG FIT BOLTS, NUTS and	Hot Dip Galvanizing	Testing	Sampling plan (*)		DO	R	P	W	
3.8	WASHERS	Sherardized coating	Testing	Sampling plan (*)		As per EN ISO 17668	R	P	W	

**Legends:**

M-Manufacturer/Sub contractor, B-BHEL/Authorised inspection agency, V-Verification, W-Witness, P-Perform, R-Report, C-Customer, CHP- Customer Hold point, TC- Test Certificates

Note: 1. This QP shall be read along with relevant PO, TDC and applicable standards and drawings. Requirements shall be compiled.

2. Chemical check by spectro/wet method (minimum 1 number to be checked per inspection lot).

Record of Revision		
Rev	Date	Details of Revision
00	29.01.2021	1. Fresh Release/ Original issue
01	26.03.2024	1. Revised preservation method only
02	04.07.2024	1. Requirement for HSFG FIT Bolts, nuts and washers included
03	08.11.2025	1. Requirement for HSFG FIT Bolts, nuts and washers updated including sherardized coating

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Reviewed by  
Manvir Singh

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Approved By  
S.R. Kenny  
AGM (QM and BE)


	BHEL: IVP Goindwal	<b>STANDARD QUALITY PLAN</b>	QP No	SQP:HSFG:001
		Item: HSFG Fasteners (Bolts, Nuts and washers)	Rev	3
			Date	18.11.2025
			Page	3 of 3

Lot Size (In nos.)	SAMPLE SIZE												Remarks
	Visual (nos.)	Dimensional (nos.)	MPI (nos.)	Physical Test							Hot Dip Galvanized (nos.)	Sherardized coating (nos)	
				Total (nos.)	Hardness (nos.)	Hardness after Re-Tempering (nos.)	Proof Load (nos.)	Wedge Load (nos.)	Min Tensile Strength (nos.)	Decarb (nos.)			
Upto 100	20	8	15	5	5	5	2	2	2	1	15	15	
101 to 300	32	13	15	5	5	5	2	2	2	1	15	15	
301 to 500	50	20	15	5	5	5	2	2	2	1	15	15	
501 to 1000	80	32	15	5	5	5	2	2	2	1	15	15	
1001 to 3000	125	50	25	8	8	8	2	4	2	1	25	25	Upto 1500 nos 15 nos. for MPI
3001 to 10000	200	80	50	13	13	13	2	6	2	1	50	50	Upto 5000 nos 25 nos. for MPI
10001 to 35000	315	125	75	20	20	20	4	10	4	2	75	75	Upto 15000 nos 50 nos. for MPI
Above 35000	500	200	100	32	32	32	6	15	6	3	100	100	Upto 50000 nos 75 nos. for MPI
Inspection by BHEL/ BHEL AIA	W	W	W	W	W	W	W	W	W	W	W	W	

#### Remarks:

- Acceptance Number is zero. If the sample is having deviation in Visual, Dimensional and MPI, then the entire lot shall be 100% inspected. In case of deviations in Physical tests a second sample of twice the sample size of initial sample shall be taken. The lot will get rejected if the second sample fails.
- Inspection by BHEL/BHEL AIA shown as "W" shall be witnessed for the sample size indicated against the lot size

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Bharat Heavy Electricals Ltd.,  
Tiruchirappalli -14

Doc. No: PR: CHEM: 09 – 04


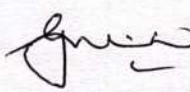
Rev: 03

Date: 01.04.2009

Page 1 of 3

## PLANT LABORATORY

### TECHNICAL SPECIFICATION FOR TEMPORARY RUST PREVENTIVE FLUID FOR BHEL USE TO IS 1153 (MODIFIED)

REV	DATE	PREPARED BY	REVIEWED AND APPROVED BY
03	01-04-2009	 L. Gragori DM/Plant Lab	 Dr. G. Ravichandran SDGM/Plant Lab

Controlled Copy No:	Issued to:





Bharat Heavy Electricals Ltd.,  
Tiruchirappalli -14

Doc. No: PR: CHEM: 09 – 04

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Page 2 of 3

### Record of Revisions

Rev. No	Date	Details of Revision	Remarks
00	05.11.1992	NEW	----
01	04.04.1995	Sl.No. 1,3 & 5 modified	Quality improvement
02	20.05.2003	Sl.No. 8 Temperature Resistance Newly added	Based on Valves Requirement
03	01.04.2009	Editorial corrections made & new requirements added in Sl.No. 6, 12 & 16. Other Sl. No. Changed accordingly.	SSTP's additional requirements as given in TDC/CHEM/06 added.





**REQUIREMENTS FOR TEMPORARY RUST PREVENTIVE FLUID**

1	Specific Gravity at ambient temperature	0.85 - 0.95
2	Flash Point °C (min)	40
3	Drying time : Surface Dry (Hours, max)	½
	Tack free (Hours, max)	4
4	Dry film thickness (Microns) per coat-min	20
5	Ford cup Viscosity (No.4) seconds at ambient temperature	25 ± 5
6	Odour	No objectionable Odour
7	Film type Transparent/Translucent	Transparent
8	Application Method	Brush/Spray
9	% Non- Volatiles by mass	55 ± 5
10	Temperature Resistance of RPF film at 50 °C (for 6 hrs)	To pass test.
11	Corrosion Protection under conditions of condensation for 300 hours.	No sign of corrosion.
12	Liebermann –Storch test for the detection of natural resin & its derivatives	No development of pink colour – indicating absence of natural resin.
13	Salt spray test for 72 hours	No sign of corrosion.
14	Outdoor durability	The coating shall not crack or turn opaque when exposed to out door, unsheltered condition for 1 year.
15	Scratch Hardness test (Under load of 1000 g as per IS 101 (Latest)	To pass test
16	Compatibility with Alkyd /Lacquer based paints.	Compatible.
17	Keeping Property – Months (Shelf life) min.	12
18	General conformance to I.S Specification	IS 1153 (Latest)
19	Packing standard/markings	Supply in 200/20/10 Lt. Barrels as per PO indicating the following. Rust Preventive fluid for BHEL use only. Supplier's Name: Batch No:     Date Quantity: Shelf Life: BHEL Specn.PR:CHEM:09-04 (latest)
20	Test certificate	The supplier shall furnish test certificate for the above requirements SI.No.1 to 16 in duplicate.