

**ENQUIRY** 

TWO PART BID

E-TENDER

### भारत हैवी इलेक्ट्रिकल्स लिमिटेड, पिपलानी, भोपाल— ४६२०२२ (भारत) सामग्री प्रबंधन विभाग

BHARAT HEAVY ELECTRICALS LIMITED, PIPLANI, BHOPAL-462022 (INDIA) **MATERIALS MANAGEMENT DIVISION** 

TIN NO- 23573000001 ECC NO- AAACB4146PXM009 MPCT NO- HEL/05/01/0001/S15/11/79

PHONE NO: 91-755-2500100 FAX: 91-755-2500023 www.bhel.com

**ENQUIRY NO** 

E5953020

**ENQUIRY DATE** ENQUIRY DUE DATE

25/07/25 04/08/25

 $\mathbf{E}$ 

SUPP NAME AND ADDRESS	SUPP CODE	REV CD	REV NO	REV DATE	NO OF CATY2	NO OF CATY3	ENQ NO OF ITEMS	INDENT NO
	0	1	0	NA	2	4	2	121355502
	GUARANTEE CE	RTIFICATE	Y	SUPPLY CONDITI	ON SUPPL	IER`S IDENTIFICAT	TION MARK SHOULD BE	
	TEST CERTIFICA	ATE	Y		ON EA	СН ЈОВ.		
	INSTRUCTION B	OOKLET	N	TECHNICAL CON	DITION AS PER	R DRG.		
	SAMPLE		N					
	GATE PASS		Y	INSPECTION CON	DITION BHEL	AUTHORISED TPIA	AT VENDORS WORK.	

NOTE: QUOTE PRICE BOTH IN FIGURES & WORDS.IN CASE OF MISMATCH PRICE IN WORDS WILL BE VALID,QUOTATIONS NOT BEARING ENQUIRY NO AND DUE DATE LIABLE TO BE REJECTED.

SL	MATERIAL	DESC	UNIT	ITEM	QTY	LOT		DEST	DELIVERY	
NO	CODE			QTY	VR%	NO	QTY		DATE	
1	BP9094675382 AA9201AZ RING STATOR M/CD TO DRG.24323477002 V00 REV.06 RUST PREVENTIVE TO BE APPLIED ALL OVER THE JOB.		NO	50.000	30	1	25.000	213	19/09/25	
		PREVENTIVE TO BE APPLIED ALL OVER THE JOB.				2	25.000	213	19/10/25	
2	BP9094675390 AA 9201 AZ RING STATOR M/CD TO DRG. 24323477003 V00 REV05. RUST PREVENTIVE TO BE APPLIED ALL OVER THE JOB.		NO	NO	50.000	30	1	25.000	213	19/09/25
		TREVENTIVE TO BE AFFLIED ALL OVER THE JOB.				2	25.000	213	19/10/25	

REMARK AS PER E-TENDER ON NIC PORTAL

DRAWING Y PURCH SPEC Y CATALOUGE Quality Surveillance Pla Y TWO PART BID Y

NOTE:BHEL,BHOPAL'S Standard Terms & Conditions BP200102 (Latest Revision) form a part of this Enquiry. Bidders may obtain from us copies of these terms and conditions if not already available.

Note: During Bid Evaluation, No loading of price with regard to preferential payment of within 45 days will be made on vendore falling under MSMED ACT - OCT 06

Please submit your lowest quotation in sealed envelop essentially superscribed with ENOUIRY NO. DUE DATE AND PARTY'S NAME so as to reach at TENDER ROOM, GROUND FLOOR, ADM BUILDING, BHEL, PIPLANI BHOPAL-462022 by 11.00 am of due date.

SPECIAL REMARK: Bid to be submitted through e-procurement. Refer eproc link on BHEL Bhopal B2B site.

NAME: SHRI MANENDRA SINGH **DESG:** DY.MANAGER

1. This is only a request for Quotation & not an order. Documents Enclosed 2.Small Scale industries should indicate SSI Regn. No. in Quotation/invoice.

3.In case you are not making an offer against this Enquiry, we request you to post a regret letter. 4.Indian vendors to please indicate GSTIN on their quotation.

3. Purchase specification. 1.Drawing. 2.Cat 40gue. 4.Quality Surveillance Plan. 0755-2505880

manendra1@bhel.in

SIGN & SEAL



## HEAVY ELECTRICAL PLANT, BHOPAL BHARAT HEAVY ELECTRICALS LIMITED

BHEL ENQUIRY NO. E5953020 DUE ON 04-08-2025

## **NIT TERMS & CONDITIONS:**

SL. NO.	DESCRIPTION	DETAILS
1.	RATE CONTRACT TERMS	We intend to enter into a Rate Contract (RC) for ordering up to 12 months from RC freeze date, i.e. RC is to be kept valid for ordering up to 12 months from RC freeze date. Purchase Ordering shall be done as per BHEL requirement against the finalised rate contract & within its validity. Dispatches to be made against our purchase order (computerized) only, which will be issued against this Rate Contract. BHEL reserves the right to cancel/ short close the Rate Contract for unordered qty at any point of time even before the expiry of RC validity without assigning any reason whatsoever it may be.
2. ITEM DESCRIPTION		Item01: - AA9201AZ RING STATOR M/CD TO DRG.24323477002 V00 REV.06 RUST PREVENTIVE TO BE APPLIED ALL OVER THE JOB.  Item02: - AA 9201 AZ RING STATOR M/CD TO DRG. 24323477003 V00 REV05. RUST PREVENTIVE TO BE APPLIED ALL OVER THE JOB.
3.	QUANTITY	50 Nos of each item
4.	QUANTITY VARIATION	± 30% for each item.
5.	DELIVERY SCHEDULE REQUIREMENT	Delivery of 1st lot of 25 Nos for item 1, 25 Nos for item 2 shall be within 60 days from date of placement of PO and subsequent lot of 25 Nos for item 1, 25 Nos for item 2 shall be within next 30 days from schedule delivery date of previous lot. Early delivery acceptable.
6.	DELIVERY TERMS	FOR Destination (BHEL Bhopal)
7.	DELIVERY INSTRUCTION	SUPPLIER'S IDENTIFICATION MARK SHOULD BE ON EACH JOB
8. PAYMENT TERMS		As per attached BHEL GTC of ENQUIRY (BP200102B, Cl. No. 16)  i.e. 100% payment in 90 days of receipt (45 days for Micro & Small and 60 days for Medium enterprises as registered in Udyam Certificate as per relevant MSME act in force) and subject to acceptance of material and relevant documents at BHEL.  Any deviation from the above payment terms, if accepted (by BHEL), shall be loaded @ SBI base rate + 6% for the purpose of bid evaluation.
9.	SPLITTING OF ORDER	Not Applicable.
10. TECHNICAL PQR (T-PQR)		Technical Pre-Qualification Requirements (T-PQR) for procurement of the items is attached with the NIT.  Compliance of all the points in T-PQR is mandatory. In absence of compliance of above and non-submission of documents required against the T-PQRs, the Vendor's offer is liable to be rejected.  Duly filled T-PQR with desired documents shall be submitted by the Vendor along with the offer.  Information/ compliance/ documents submitted by vendor shall be authentic in all aspects. In case any deviation/ false information/ forged documents are observed / revealed later



### **HEAVY ELECTRICAL PLANT, BHOPAL BHARAT HEAVY ELECTRICALS LIMITED**

BHEL ENQUIRY NO. E5953020

**DUE ON 04-08-2025** 

		on, BHEL is free to initiate appropriate punitive proceeding against the Vendor as per				
		Prevalent Processes and Guidelines of Company.				
11.	FINANCIAL PQR (F-PQR)	Not Applicable.				
12.	QAP	pplicable as attached				
42	DID DADTS	Offer shall be submitted by the bidders in Two Parts,				
13.	BID PARTS	i.e. Part-I Technical cum Commercial bid & Part-II Price bid.				
		As per attached BHEL GTC of ENQUIRY (BP200102B, Cl. No. 9)				
14.	PENALTY / LD	i.e. 0.5% of the undelivered portion per week of delay or part thereof, subject to a				
		maximum of 10% of the undelivered order value owing to delayed delivery.				
15.	PRICE BASIS	Firm Price basis				
16.	PRICING TERMS	As per attached BHEL GTC of ENQUIRY (BP200102B, Cl. No. 12)				
		As per attached BHEL GTC of ENQUIRY (BP200102B, Cl. No. 13)				
17.	PRICE VALIDITY	i.e. Offer shall be valid for a period of 90 days from the date of Techno- commercial (Part-				
		I) bid opening date.				
18.	TAXES &	As per attached BHEL GTC of ENQUIRY (BP200102B, Cl. No. 14)				
	DUTIES					
19.	TECHNICAL	As per attached Drg, PQR & SPEC.				
	CONDITION	As you attached Core				
20.	SAMPLE	As per attached Spec				
21.	INSPECTION	BHEL AUTHORISED TPIA AT VENDORS WORK.				
CONDITION						
22.	CERTIFICATE	All Material TC to be supplied along with material as per Spec. and TC should incorporate				
	GUARANTEE /	Spec.				
23.	WARRANTY	As per BHEL GTC of ENQUIRY (BP200102B, Cl. No. 18).				
	GUARANTEE/					
24.	WARRANTEE	GUARANTEE/ WARRANTEE Certificate to be supplied along with each lot of the material.				
	CERTIFICATE					
25.	EVALUATION	Overall L1 basis				
23.	CRITERIA	Overall LI Dabib				
	BID SECURITY/	Not Applicable				
26.	Earnest Money	Not Applicable				
	Deposit (EMD) PERFORMANCE					
27.	SECURITY (PBG)	Not Applicable				
	REVERSE					
28.	AUCTION	Not Applicable.				
	MSE	Applicable as per attached BHEL GTC of ENQUIRY (BP200102B, Cl. No. 29)				
29.	PREFERENCE	Applicable as per attached BHEL GTC of ENQUINT (BP200102B, Cl. No. 29)				
	PUBLIC	Applicable as per attached BHEL GTC of ENQUIRY (BP200102B, Cl. No. 33).				
30.	PROCUREMENT	For this procurement, the local content to categorize a supplier as a Class I local supplier/				
	(PREFERENCE TO	Class II local Supplier/ Non-local supplier and purchase preference to Class I local supplier,				
	MAKE IN INDIA)	Class in local supplier, mon-local supplier and purchase preference to class i local supplier,				



### **HEAVY ELECTRICAL PLANT, BHOPAL**

**BHARAT HEAVY ELECTRICALS LIMITED** 

BHEL ENQUIRY NO. E5953020 **DUE ON 04-08-2025** 

		is as defined in Public Procurement (Preference to Make in India), Order 2017 dated 19.07.2024 issued by DPIIT. In case of subsequent orders issued by the nodal ministry, changing the definition of local content for the items of the NIT, the same shall be applicable even if issued after issue of this NIT, but before opening of Part-II bids against this NIT					
		The local content to categorize a supplier as a Class-I local supplier / Class-II local supplier / Non-Local supplier and purchase preference to Class-I local supplier, is as defined in above circular issued by DPIIT/ Nodal Ministry.					
		Bidders to also inform the Actual Percentage of the Local Content and the Complete Address of the Location of Local Value Addition as per the attached MII format, failing which no purchase preference shall be granted.					
		In case the bid value is more than Rs. 10 Crore, the declaration relating to the Actual Percentage of the Local Content and the Complete Address of the Location of Local Value Addition shall be Certified by the Statutory Auditor or Cost Auditor, if the OEM is a Company and by a Practicing Cost Accountant or a Chartered Accountant for OEM other than Companies as per the above circular.					
		For contracts valuing more than Rs 10 Crores, local content (in cases of self-certification submitted by bidders at the time of tendering) will be re-verified during execution of contract by Cost/ Chartered Accountant/ <b>Statutory Auditor/Cost Auditor (as applicable)</b> and in case of defaults, penalty upto 10% of the contract value shall be imposed. However, contract once awarded shall not be terminated on this account.					
		Bidders or successors can be debarred for false declarations for up to 2 years. Debarred suppliers not eligible for preference in any other procuring entity.					
31.	INTEGRITY PACT (IP)	Not Applicable					
32.	RESTRICTION UNDER RULE 144 (xi) GFR	As per attached BHEL GTC of ENQUIRY (BP200102B, Cl. No. 34)					
	CONFLICT OF INTEREST AMONG	A bidder shall not have conflict of interest with other bidders. Such conflict of interest can lead to anti-competitive practices to the detriment of Procuring Entity's interests.  Bidders having a conflict of interest shall not be eligible to participate in the tender process.  Treatment of cases regarding conflict of interest: - The bidder notes that a conflict of interest would said to have occurred in the tender					
33.	BIDDERS/ AGENTS AND	process and execution of the resultant contract, in case of any of the following situations:					
	THEIR DECLARATION	<ul> <li>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;</li> </ul>					
		ii) The bidder (or his allied firm) provided services for the need assessment/ procurement planning of the Tender process in which it is participating;					



### **HEAVY ELECTRICAL PLANT, BHOPAL**

**BHARAT HEAVY ELECTRICALS LIMITED** 

BHEL ENQUIRY NO. E5953020 **DUE ON 04-08-2025** 

		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 Authorised distributor (with/ or without the OEM) from quoting equipment manufactured by an Original Equipment Manufacturer (OEM) in procurements under a Proprietary Article Certificate.  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
34.	ANNEXURE-IX	The Bidder/Supplier/Contractor will, when presenting his bid, declare whether other Family Firms or Sister Concern Affiliates/Subsidiary firms are participating in the same tender, so as to eliminate the possibility of cartel formation. Format for declaration is available in the NIT documents for this enquiry (Annexure-IX). Same is to be submitted with the offer.
35.	SPECIAL CONDITIONS	Bidders who fall under MSE (Micro & Small Enterprises only) and fail to upload 'UDYAM Registration Certificate (URC)' shall automatically be considered as Non-MSE supplier for this tender.  Further, it is to be noted that MSE benefits are not being extended to Agent/ Dealer/ Trader/ Distributor (i.e. Other than manufacturer). Supplier has to also provide supporting document(s) such as Agreement Between OEM & Bidder(s) etc. Identification must. Soon after rejection of material, it is to be ensured by supplier that material should be taken back maximum within two weeks after communication for rectification/ replacement & supply back the rectified/ fresh material to BHEL Bhopal within 30 days from rejection. In the event of non-lifting of rejected material by supplier, BHEL will not be responsible for loss of such items to the supplier in any case.  Offers of suppliers who are in 'HOLD/BANNED' status in BHEL Bhopal PMD shall not be considered.



### **HEAVY ELECTRICAL PLANT, BHOPAL BHARAT HEAVY ELECTRICALS LIMITED**

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**DUE ON 04-08-2025** 

	I	
		Unregistered vendors to submit documents required for registration to BHEL Portal Online
		(https://bhel.com/supplier-registration).
		Other Terms & Conditions as per attached BHEL GTC of ENQUIRY (BP200102B).
36.	OTHER TERMS	Any deviation of NIT, BHEL GTC of ENQUIRY (BP200102B) and BHEL PO Terms, where
30.	& CONDITIONS	vendor response is not affirmative to be clearly indicated, else BHEL will consider that all
		above Terms & Conditions are acceptable to vendors.
		As you are kindly aware that Government e-Marketplace (GeM) is a one stop portal to
		facilitate Online Procurement of Goods & Services required by various Government
	GEM	Departments/ Organizations/ PSUs.
37.	REGISTRATION	BHEL being a PSU, would like that its suppliers/contractors also have visibility on this portal
		so that GeM can be used for procurement by BHEL.
		Hence, you are requested to get yourselves registered on GeM.
38.	TENDER FEE	Not applicable
		No request for extension of tender due date will be entertained at the time of tender
	BID SUBMISSION	opening and after due date under any circumstances. Hence, all bidders are requested to
39.		submit their bid well within due date and time only.
	WITHIN DUE	BHEL reserves the right for extension of tender based on the situation without assigning
	DATE & TIME	any reason whatsoever it may be.
		Signed and Sealed copy of:
		- NIT
		- BHEL GTC of ENQUIRY (BP200102B)
	DOCUMENTS	- BHEL PO Terms
	TO BE	Duly Filled, Signed and Sealed copy of:
40.	FURNISHED	- T-PQR along with all supporting documents for each item
	ALONG WITH	- Annexure-IX in Company Letterhead
	YOUR	- Filled & Signed Techno-Commercial Annexure
	QUOTATION	- Make in India (MII) certificate for each item
		Others:
		- UDYAM Registration Certificate (as applicable for MSME bidders only)
	1	1 22 Registration determinate (as applicable for Monte bladers only)

IT IS HEREBY MENTIONED THAT THIS IS E-TENDER SO OFFER SUBMITTED THROUGH E-PROCUREMENT PORTAL (www.eprocurebhel.co.in) SHALL ONLY BE CONSIDERED.

 $\frac{Techno\text{-}Commercial\ Annexure}{\text{(To be filled by supplier inline with NIT requirement and submit with offer)}}$ 

Tende	er No.	E5953020 due on 04/08/2025					
			CD TO DRG.24323477002 V00 REV.06. RUST PREVENTIVE TO BE	APPLIED ALL OVER THE JOB			
Descr	iption :	Item01: - AA9201AZ RING STATOR M/CD TO DRG.24323477002 V00 REV.06. RUST PREVENTIVE TO BE APPLIED ALL OVER THE JOB.  Item02: - AA 9201 AZ RING STATOR M/CD TO DRG. 24323477003 V00 REV05. RUST PREVENTIVE TO BE APPLIED ALL OVER THE JOB.  TENDER QTY.:- 50 ±30% Nos of each item					
		Delivery required as per NIT.					
Sr. No.	ELEMENTS	Standards	To be offered/confirmed by supplier	Remarks, if any			
1	Quotation reference no. & date	As per supplier					
2	HSN / SAC code	As per supplier					
3	Quotation currency	In INR					
4	Contact person	As per supplier					
5	Phone / Mobile	As per supplier					
6	E-Mail	As per supplier					
7	Order to be placed on (Also provide supplier code at BHEL Bhopal, If registered)	As per supplier					
8	Address	As per supplier					
9	Please specify delivery in weeks/ days (Specify item wise, lot wise as per RFQ)	As per NIT/ Accepted with deviation (If select Accepted with deviation, please mention the deviation)					
10	Rate quoted on "Firm" price basis	Yes					
11	Quoted for all the items and full quantity of tender enquiry	Yes / No. (If "No" please mention item number with Qty of regreted items)					
12	Technical specifications	Accepted as per NIT / Accepted with deviation (If select Accepted with deviation, please mention the deviation)					
13	Inspection	As per NIT/ Accepted with deviation (If select Accepted with deviation, please mention the deviation)					
14	Test certificate & Gurantee certificate as per NIT and specification will be submitted along with each consignment	Yes (In case of "No" your offer may be rejected).					
15	Brand name, if any.	As per supplier					
16	Supply from	As per supplier					
17	Terms of delivery ("FOR DESTINATION" means freight & insurance upto destination in supplier's scope (Destination: CRX Divn, BHEL Bhopal)	Accepted/ Accepted with deviation (If select Accepted with deviation, please mention the deviation)					
18	Transit insurance (In supplier's scope)	As per NIT/ Accepted with deviation (If select Accepted with deviation, please mention the deviation)					
19	CGST RATE (IN %)	As per supplier					
	SGST RATE (IN %)	As per supplier					
	IGST RATE (IN %)	As per supplier					
22	UGST RATE (IN %)	As per supplier					
23	Are you manufacturer of quoted item (s).	Yes / No					
24	Are you registered under MSMED ACT 2006 as small or micro.  NOTE: - Firms registered under medium scale shall not be considered eligible for MSE benefits.	Yes / No (If select Yes, please enclosed valid UDYAM certificate)					

 $\frac{Techno\text{-}Commercial\ Annexure}{\text{(To be filled by supplier inline with NIT requirement and submit with offer)}}$ 

Tende	r No.	E5953020 due on 04/08/2025					
		Item01: - AA9201AZ RING STATOR M/	CD TO DRG.24323477002 V00 REV.06. RUST PREVENTIVE TO BE	APPLIED ALL OVER THE JOB.			
Descri	ption :	Item02: - AA 9201 AZ RING STATOR M/CD TO DRG. 24323477003 V00 REV05. RUST PREVENTIVE TO BE APPLIED ALL OVER THE JOB.  TENDER QTY.:- 50 ±30% Nos of each item					
		Delivery required as per NIT.					
Sr. No.	ELEMENTS	Standards	To be offered/confirmed by supplier	Remarks, if any			
25	Terms of Payment (100% payment in 90 days of receipt (45 days for Micro & Small and 60 days for Medium enterprises as registered in Udyam certificate as per relevant MSME act in force) and subject to acceptance of material and relevant documents at BHEL. Pl refer GTC BP200102B)	As per NIT/ Accepted with deviation (If select Accepted with deviation, please mention the deviation)					
26	SELF CERTIFICATION OF MINIMUM LOCAL CONTENT, IF MORE THAN 50% VALUE ADDITION IS IN INDIA. (Note- In case of tenders worth more than Rs. 10 crores, Suppliers shall necessarily submit certificate from statutory auditor or cost auditor or cost accountant or CA) Please also specify the amount of local content in India. EXAMPLE :if 100% INDIGENOUS (MADE IN INDIA) MARK "Y"/100%	As per supplier					
27	Details of location of value addition / manufacturing	As per supplier					
28	Other Charges (If any)	Applicable / Not Applicable. (If applicable please mention percentage (%) / Value (along with type of charges).					
29	Penalty for delayed performance as per BP200102B & NIT	Yes / No (In case of "No", your offer will be loaded suitably)					
30	Confirmation that documents pertaining to technical PQR has been submitted	Yes / No					
31	Acceptance to "REVERSE AUCTION" if conducted (As per BHEL's RA policy)	Yes / No	Not Applicable				
32	Submission of Declaration format with duly sealed & signed (Annexure IX, refer attached) regarding whether other family firms or sister concern affiliates / subsidiary firms are participating in the same tender.	(Yes / No) If No please specify the reason.					
33	General terms and conditions of enquiry (Form No. BP-200102B) and BHEL PO Terms & Conditions is Acceptable.	Yes (In case of "No" your offer may be rejected).					
34	Quotation Validity will be 90 days from the date of techno-commercial bid opening.	Yes					
35	Tender fees submitted	Yes / Not Applicable	Not Applicable				

# <u>Duly filled Technical Pre-Qualification Requirements to be submitted along</u> with the offer by vendor

For uploading along with the enquiry

Ref No: TME/PQR/Ring\_TA9901/9906 Rev.00 Dated: 11/07/2025

### **Technical Pre-Qualification Requirements (PQR)**

<u>Vendor should comply with the following clauses in order to qualify for supply of tendered</u> item (duly filled PQR shall be submitted along with the offer by vendor):

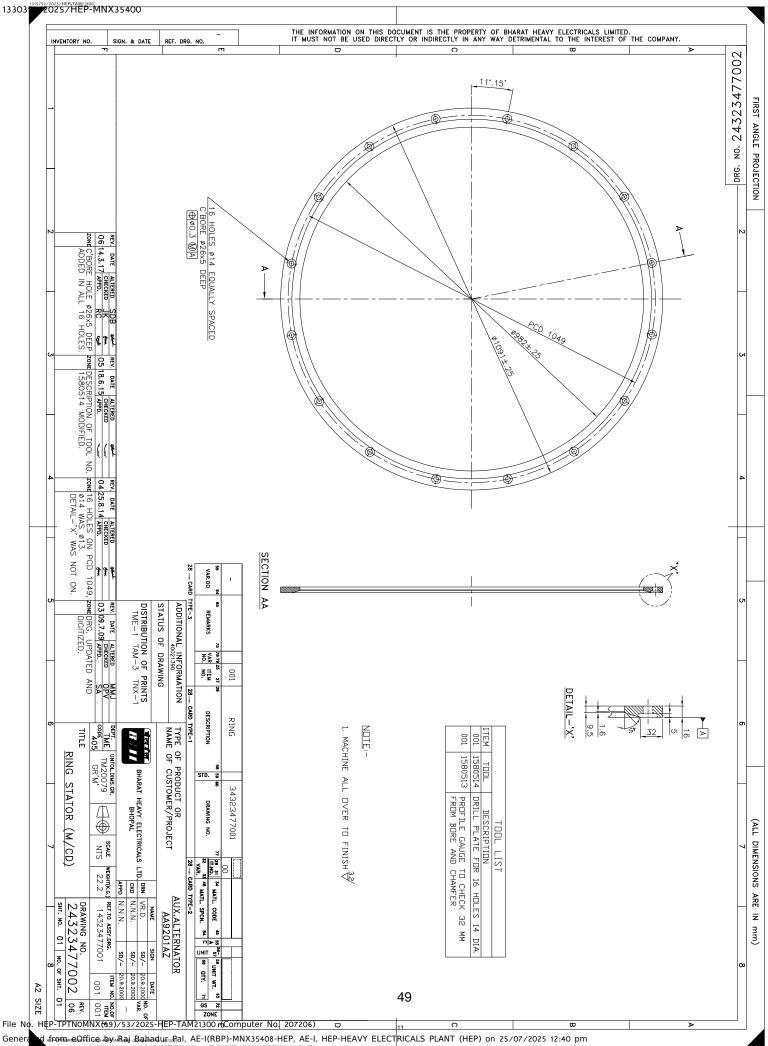
CI.	Description	Vendor to comment		
No.		Complied / Not complied (Please tick)	Supporting relevant document to be submitted along with offer	
1.	Vendor shall supply item as per drawing no. & description mentioned in the enquiry.	Yes/No	Not Required	
2.	Vendor to confirm that it is the machinist of the offered item and not the trader.	Machinist/ Trader	Not Required	
3.	Vendor should have past experience of successfully machining & supplying any component having machined diameter of min. 500mm involving turning operation in preceding 5 years from enquiry opening date.  Vendor to ensure that documents submitted against b) & c) shall correlate with the submitted P.O. copy.	Yes/No	<ul><li>a. PO copy.</li><li>b. Drawing of supplied item.</li><li>c. Supply proof i.e. invoice.</li></ul>	
4.	For verification of information furnished by vendor, additional documents proofs etc. may be required by BHEL. Vendor to confirm providing the same.	Yes/No	Not Required	

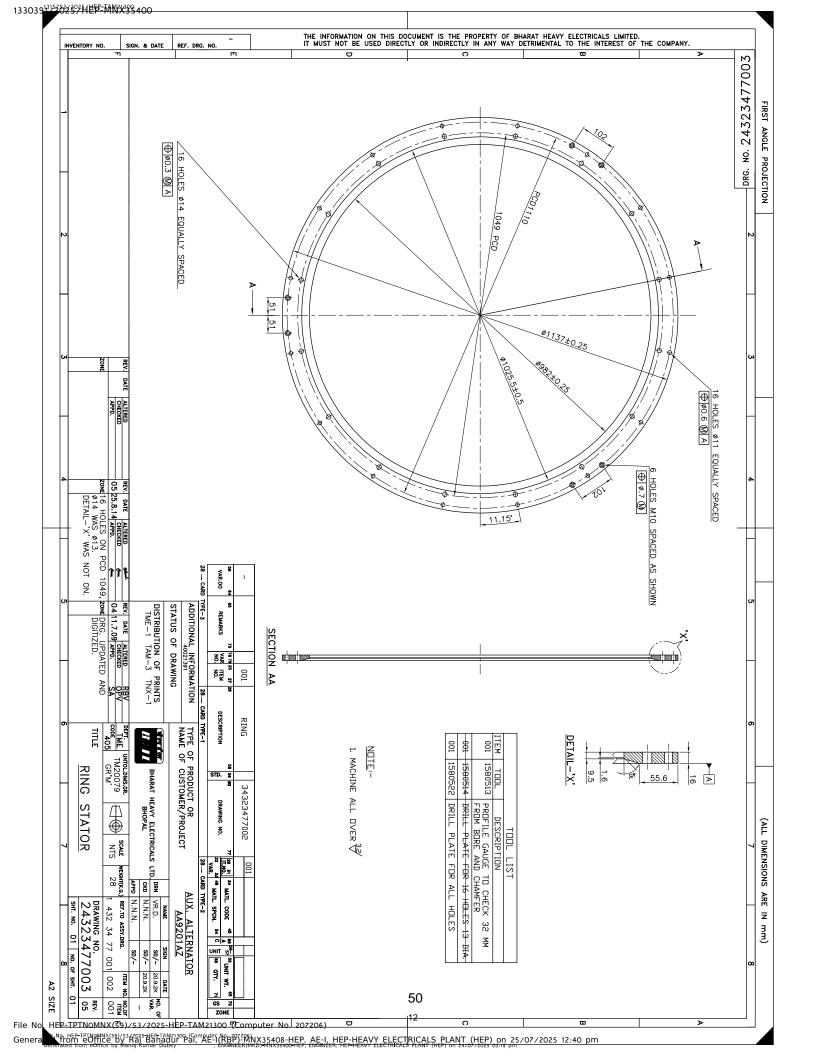
### Notes:

- 1. Compliance of all the points in above T-PQR is mandatory. In absence of compliance of above, vendor's offer is liable to be rejected.
- 2. Information / compliance / documents submitted by vendor shall be authentic in all aspects. In case any deviation / false information / forged documents are observed, BHEL is free to initiate appropriate punitive proceeding against the supplier.

**Important:** This document is to be filled and submitted along with the offer. This document must be signed by authorized representative of the vendor and should contain the name of representative & seal of the company.

(Sign and Seal of Authorized representative of vendor)









# CORPORATE PURCHASING SPECIFICATION

AA10119

Rev No.15

PREFACE SHEET

# STRUCTURAL STEEL - WELDABLE QUALITY (PLATES, SECTIONS, STRIPS, FLATS AND BARS)

FOR INTERNAL USE ONLY

REMOVE THIS PREFACE BEFORE ISSUE TO SUPPLIERS

### Equivalent/Comparable Standards:

1) IS: 2062 - 2011 : Grade: E250- BR (With impact test)

2) DIN EN 10025-2:2005 : Grade: S275JR

### Suggested/Probable Suppliers and Grades:

Refer Plant Vendors List

### User Plants and Replaced Plant Specifications/References:

HEP, BHOPAL :
 HEEP, HARDWAR :
 HPEP, HYDERABAD :

Revisions:			APPROVED:				
Clause No. 1, 3, 5 & 8 revised (as per MOM of 38th			INTERPLANT MATERIAL RATIONALISATION				
MRC meeting), Clause 10 added			COMMITT	EE - MRC(So)	&GPS)		
Rev No.15	Amd No.	Reaffirmed	Prepared	Issued	Dt. of 1st Issue		
Dt:11-03-2014	Dt:	Year:	<b>∮§</b> HPEP, Hyderabad	Corp.R&D	June, 1976		

13303911/3**21525**2/**HPDP25MINDS/3-574010**21300

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# CORPORATE PURCHASING SPECIFICATION

AA10119
Rev No. 15
PAGE 1 of 2

### STRUCTURAL STEEL - WELDABLE QUALITY

(PLATES, SECTIONS, STRIPS, FLATS AND BARS)

### ORDERING DESCRIPTION

### 1.0 GENERAL:

The material shall conform to IS 2062 – 2011, E250-Gr.BR (with mandatory Impact Test) or DIN EN 10025-2:2005, Gr. S275JR and comply with following additional requirements.

### 2.0 APPLICATION:

For general engineering purposes, suitable for welding.

### 3.0 CONDITION OF DELIVERY:

- 3.1 Bars & Sections shall be supplied in Hot rolled in straight lengths without twists and bends.
- 3.2 The material shall be supplied as per IS: 2062 2011, E250 Gr.BR (with mandatory Impact Test) or as per DIN EN 10025-2:2005 Gr. 275JR.
- **3.3** Any other additional requirement as per BHEL Purchase order.

### 4.0 DIMENSIONS AND TOLERANCES:

### 4.1 Sizes:

Material shall be supplied to the dimensions specified in BHEL Order.

### 4.2 Tolerances:

The tolerances on hot rolled material shall comply with IS: 1852 or any other equivalent national standard.

### 4.3 Straightness for hot rolled bars:

Unless otherwise specified, the permissible deviation in straightness shall not exceed 5 mm in any 1000 mm length.

### 5.0 TEST SAMPLES:

The selection of test pieces for all tests like Chemical, Mechanical etc. shall be as per IS: 2062, E250-Gr.BR or DIN EN 10025-2, Gr. S275JR.

Revisions: Clause No. 1, 3, 5 & 8 revised (as per MOM of 38th MRC meeting), Clause 10 added			APPROVED: INTERPLANT MATERIAL RATIONALISATION COMMITTEE – MRC(S&GPS)		
Rev No.15	Amd No.	Reaffirmed	Prepared Issued Dt. of 1		
Dt:11-03-2014	Dt:	Year:	<b>ን</b> ች HPEP, Hyderabad	Corp.R&D	June, 1976

AA10119

Rev No. 15

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# CORPORATE PURCHASING SPECIFICATION



### **6.0 ULTRASONIC EXAMINATION:**

Plates shall be ultrasonically examined in accordance with BHEL standard AA0850120 (or ASTM-A435) as detailed below and shall comply with the acceptance standards specified therein.

### 6.1 For plates above 40 mm thick:

Shall be ultrasonically examined unless when otherwise specified in order.

### 7.0 TEST CERTIFICATES:

Unless otherwise specified, three copies of test certificates shall be supplied.

In addition, the supplier shall ensure to enclose one copy of the test certificate along with their dispatch documents to facilitate quick clearance of the material.

The test certificate shall bear the following information:

AA10119 - Rev.No.15/ IS: 2062-Gr: BR (with mandatory Impact test) or DIN EN 10025-2, Gr. S275JR,

BHEL order No.

Melt No, Size & Quantity, Batch No with heat treatment details, Results of Chemical analysis,

Mechanical tests & NDT, Supplier's name, Identification No, TC No, Signature of Competent Authority, etc.

### 8.0 PACKING AND MARKING:

Plates shall be transported suitably to avoid damage during transit.

Each plate shall be marked with Melt No. Material grade and specification, BHEL Order No, Supplier's Name Identification No, Size & weight, on any one corner and encircled with paint preferably of white colour.

### 9.0 REJECTION AND REPLACEMENT

If the material does not comply with the requirements of this specification during receipt inspection at BHEL or if any defect is found during further processing of material, BHEL reserves the right to reject the whole consignment and the supplier shall replace the material free of cost. The rejected material shall be taken back by the supplier after fulfilling the commercial terms and conditions.

### 10.0 REFERRED STANDARDS (Latest publications including amendments):

1) IS: 1852

2) ASTM - A435

3) AA0850120

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### PLANT STANDARD

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### ULTRASONIC TESTING OF BUTT WELD JOINTS

Supersedes TP 0037

THICKNESS 12 mm AND ABOVE)

1. SCOPE:

This document lays down the testing procedure and acceptance standards for ultrasonic examination of butt-welded joints of thickness 12 mm and above.

Assistance has been drawn from ASME Section V. Article T-536.

2. EQUIPMENT:

The equipments shall conform to B.S. 3923: Part 1, manufactured by recognized manufacturer's such as Krautkramer's USIP 11; USK 5, USL 35, USM 2 etc. er any equivalent model.

3. TESTING PERSONNEL: Ultrasonic testing shall be carried out by qualified personnel, conversant with and having adequate experience in ultrasonic testing.

4. TECHNIQUE:

Pulse echo technique and contact method shall be used. Menual operation with visual monitoring shall be done.

- At leastive probes shall be used for scanning. A combination of one normal beam probe and one angle beam probe or two angle beam probes of beam angles differing at least by 10° shall be used. Probes of frequency 2 to 4 MHz shall be used in general. Where thin sections are to be tested higher frequencies upto 6 MHz may be used.
- The probe angles should be generally conforming to the following guidelines.

Thickness

Probe Angle

12 to 25 mm

45°; 60/70°

Above 25 mm

45° & 60°

- Twin crystal angle and normal probes shall be used when testing welds of thickness below 20 mm.
- To attain accustic contact, SAE-30, oil or any other equivalent oil shall be used. Cellulose paste may also be used as couplant.
- BLOCK:
- 5. CALIBRATION The basic calibration block of ASME T-546 shall be used as detailed in
  - The block shall be of acoustically some material as the material, under
- 6. SURFACE PREPARATION:
  - The weld surface shall be ground smooth to remove ripples and to facilitate proper contact of probes with the weld surface. For thickness below 20 mm, both the sides of the weld shall be ground flush, Wherever possible.
  - Parent metal adjacent to the weld area upto a full skip distance shall be cleaned to remove spatters, scales, dirt etc.
- 7. BASIC CALIBRATION:
- Time scale shall be calibrated using any suitable range, to cover a minimum full skip in case of angle beam probing and full thickness in case of normal beam probing.
- Distance amplitude curve shall be established using basic calibration block and appropriate hole as per ASME Sec. V, T 546.
- In case of prolonged upe of the machine for testing, calibration check shall be made at least after every 45 minutes of examination.
- If there is difference in attenuation between the calibration block and the actual job under test, correction is to be affected.

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Revision: -

Brought upto date in BP Series.

Issued by: Standards & Materials Group Technical Services Department

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Date of first imeue :

repared: Approved: BEV. HLG. RC SEPT. 83

Date: March 92

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### PLANT STANDARD

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SCANNING:

- Scanning shall be done at a value of 6 db more than the calibrated gain.
- In case of equipment like Krautkramer's USL-35, Where logerithemic amplifiers and automatic distance amplitude correction facility is incorporated, back echo from 100 mm radius of TI W block in case of angle probes and back echo from the specimen in case of normal beam probes shall be brought upto the reference beight.
- While evaluating the indications the gain shall be reduced by 6 db.
- Any indication exceeding primary reference level shall be taken as relevant and evaluated as per clause 9.0.
- ACCEPTANCE STANDARD:

The acceptance standard shall be in accordance with Corporate Standard AA 062 21 01.

10. REPAIR:

Repaired areas shall be re-examined as detailed above - clause 1 to 9.

11. DOCUMENTATION:

A complete set of records on each weld examined shall be compiled and retained and in the case of a sub-contractor, copies of these records shall be submitted to BHEL, Bhopal on completion of an acceptable weld.

The record shall contain the following particulars.

- a) Equipment (name of manufacturer & make).
- b) Probes (designation, frequency & crystal size).
   c) Testing procedure/specification.
   d) Sensitivity & callbration:
- Observation.
- f) Result

The report shall be issued in a standard proforms duly signed by an authorised technical representative.

# 3 T Min 7 7/2

Annexure I

(t) Basic calibration Hole Weld thickness Notch Size Block Thickness (T) Ma. 25 mm or lées 19 mm or t 2.4 mm Width 3.2 to 6.4 mm Ower 25 mm through 50 mm 37.5 mm or t Over 50 mm through 100 mm 75 mm or t 4.8 77FB Over 100 mm through 150 mm 125 mm or t 6.3 Depth 2% Over 150 mm through 200 mm 175 mm or t 8.0 mm Over 200 mm through 250 mm 225 mm or t 9.5 mm Length 50 mm

- 1) Holes shall be drilled and reamed a minimum of 37.5 mm deep, essentially parallel to the examination surface.
- 2) For each increase in thickness of 50 mm or fraction thereof, the hole diameter will increase 1.6 mm.
- 3) The tolerance for hole diameter shall be  $\pm$  0.8 mm. The tolerance on hole location through the thickness shall be  $\pm$  3.2 mm.

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### CORPORATE STANDARD

AA0621101
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PAGE 1 of 3

### TOLERANCES AND MACHINING ALLOWANCES FOR FLAME CUTTING

### 1 SCOPE

This standard lays down the tolerances, machining allowances and the surface finish to be obtained for steel plates and rolled products, flame cut by hand or by machine.

### 2 FINISH OF CUT SURFACES

2.1 Surface finish to be obtained on cut surfaces for various methods of cutting is given in Table 1.

Table 1

Methods of cutting	Plate thickness mm	Finish in Microns
Automatic	5 to 10 11 to 40 41 to 100 Above 100	320 to 800 160 to 500 320 to 800 500 to 1200
Semi-Automatic Gas cutting	5 to 10 11 to 40 41 to 100 Above 100	500 to 1200 320 to 800 500 to 1200 800 to 2000
Manual Gas cutting	5 to 10 11 to 40 41 to 100 Above 100 Rolled Sections Pipes	800 to 2000 800 to 2000 800 to 2000 1200 to 3000 1200 to 2000 1200 to 2000

### 2.2 NOTES

- **2.2.1** Local notches on the gas cut surface having depth upto twice the highest roughness value as per the above table are permissible in case their number does not exceed 4 per metre length of cut. In case the gas cut surface is to be subsequently machined, the allowable depth of local notches may be increased to 70% of the machining allowance on side.
- **2.2.2** The roughness of gas cut surface for scrap cutting of risers giving allowances for bending and other such rough jobs is not covered in this standard.
- **2.2.3** The total length of deviated cuts on the gas cut surface shall not exceed 20% of the actual length of cut and length of maximum deviated cut should not be more than 150 mm.
- **2.2.4** The deviated cuts shall have smooth transitions.

Revisions:			APPROVED: INTERPLANT MATERIAL RATIONALISATION COMMITTEE – MRC (W)			
Rev. No. 01	Amd. No.	Reaffirmed	Prepared	Issued	Dt. of 1st Issue	
Dt: 07-01-1998	Dt:	Year: 2021 <b>59</b>	HEP, Bhopal	Corp. R&D	15-01-1976	

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AA7501428

Rev. No. 01

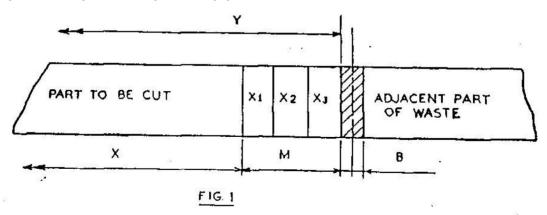
PAGE 2 of 3

### **CORPORATE STANDARD**



### 3 TOLERANCE AND ALLOWANCES

### 3.1 TOLERANCES AND ALLOWANCES SCHEME



X = Nominal size of part.

Y = Nominal size of blank for the part.

M = Machining allowance.

B = Width of cut.

X1 = Allowance, considering the local unevenness during cutting.

X2 = Allowance, considering violation of dimensions of parts to be cut as a result of inaccurate placement of plates on tables, inaccuracy of setting of cutting torch in relation to the plate to be cut.

X3 = Allowance, considering inaccuracy of marking (error in making of templates) depending upon the overall dimensions of parts to be cut.

**3.2** Value of machining allowance along the periphery of parts depends upon the thickness of metal to be cut & the equipment used for flame cutting according to Table 2A.

### Table 2A

Machining allowance (in mm) on each side or radius on gas cut edges which are to be machined subsequently (KERF allowance i.e. width of cut not included).

	Thickness of plates in mm					
Process/ Machine	upto 25 mm	above 25 mm upto 50 mm	above 50mm upto 100 mm	above 100mm upto 150 mm	above 150 mm upto 250 mm	above 250 mm
CNC F/C	04	05	05	06	08	10
PANTOGRAPH F/C	05	06	07	08	10	12
ELETRONIC F/C	04	06	-	-	-	-
PORTABLE F/C	05	07	08 upto 75 mm thickness	ı	-	-
PLASMA CUTTING	06	08 upto 50 mm thickness	-	-	-	-



### **CORPORATE STANDARD**

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**3.3** Value of machining allowances on the surface of an item (which is flame cut) depends upon its, out of flatness and hence shall be governed by its largest dimension. As such the plate thickness shall be selected by adding machining allowance on each face being machined vide table 2B.

### Table 2B

Machining allowances (in mm) on each face (surface) on gas cut plates which are to be machined subsequently

Nominal size of the part (in mm)	Machining allowance on each face (surface) in mm
upto 500	03
more than 500 and upto 1000	05
more than 1000 and up to 2000	06
more than 2000 and up to 4000	08
more than 4000 and up to 6000	10
more than 6000 and upto 10,000	12
more than 10,000 and upto 15,000	15
more than 15,000	18

**3.4** The tolerances on dimensions of parts gas cut and finished without further machining are given in table 3.

Table 3: Tolerances on gas cut (surfaces) which are not to be machined subsequently (clause 3.3)

Nominal size of parts of	Value o	e of tolerance in mm (±) Thickness of metal to be cut in				t in mm		
blanks including allowances.	upto 25 Auto	Manual	26-50 Auto	Manual	51-100 Auto	Manual	101-200 Auto	Manual
More than 40 upto 250	1.5	2.5	2	3	2.5	4	3	5
251-500	2	3	2.5	3.5	3	4.5	3.5	5.5
501-1000	2.5	3.5	3	4	3.5	5	4	6
1001-2000	3	4	3.5	4.5	4	5.5	4,5	6.5
2001-3000	3.5	4.5	4	5	4.5	6	5	7
3001-5000	4	5	4.5	5.5	5	6.5	5.5	8
5001-10000	4.5	5.5	5	6	5.5	7	6	9

**3.5** The cut shall be square and out of squareness due to the cut shall be limited to 5% of thickness if cut by hand and 3% of thickness if cut by machines.

व्यः, टी. एम. वि

Prepared By



# **BHARAT HEAVY ELECTRICALS LIMITED, BHOPAL**

# QUALITY ASSURANCE PLAN STATOR END CLAMPING RING TO BHEL ORDERING SPECIFICATION/DRAWING AS PER PO

Reference Document- PO DRAWING/SPECIFICATION QUALITY PLAN NO. - QAP/QTM/VENDOR QAP/2024-25/029/RFC STATOR END CLAMPING RING DTD 17.11.2024 REV 00 Page : 1 of 1

NO ST.		1)	<b>k</b> hi	2)
COMPONENT		Raw material (All tests)		Dimension
COMPONENT CHARACTERISTICS		a) Chemical properties	b) Mechanical properties	Dimension
TYPE OF CHECK		TC verification		Measurement 100%
QUA OF C	TP	100% 100%		100%
OF CHECK	TPIA	100%		10%
REFERENCE DOCUMENT		As per specification mentioned in	drawing	As per drawing
ACCEPTANCE NORMS		As per Specification		As per drawing &
FORMAT OF RECORD		MTC		Supplier record
INSPECTION AGENCY		BHEL/TPIA		ВНЕГ/ТЫР
REMARKS		1.MILL TC to be reviewed by TPIA &, Vendor to get the raw	material TC correlated with material for heat and invoice and invo	100 % RR & 10%

Abbreviation: TPIA -BHEL appointed third Party Inspecting Agency, TP - Task Performer (vendor),, RR-Record Review,

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Packing to avoid transit damage

Visual

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As per drawing

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BHEL/TPIA

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