



An ISO 9001
Company

Bharat Heavy Electricals Limited

(High Pressure Boiler Plant)

Tiruchirappalli – 620014, TAMIL NADU, INDIA

MATERIALS MANAGEMENT

TITLE: Supply of Forged Nozzles to BHEL Trichy	Phone: +91 431 2577426 / 2575329 Fax : +91 431 2520 719 Email : tantuway@bheltry.co.in geetha@bheltry.co.in
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Reference Number: 1401600025	Date: 20.06.2016	Due date for submission of offer : 14.07.2016
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You are requested to quote the Enquiry number date and due date in all your correspondences. This is only a request for quotation and not an order.

Please note that under any circumstance both delayed offer and late offers will not be considered. Hence vendors are requested to ensure that the offer is reaching physically our office before 14.00 hrs on the date tender opening.

BHEL / Trichy is looking for Forged Nozzles to BHEL Trichy as per the attached documents.

BHEL technical terms & conditions and all annexures can be downloaded from BHEL web site http://www.bhel.com or from the Government tender website http://tenders.gov.in (public sector units) Bharath Heavy Electricals Limited) under reference “ 1401600025 ”	
Offer should reach us before 14:00 hours on the due date of 14.07.2016.	Yours Faithfully, For Bharath Heavy Electricals Limited Sr. Engineer / MM / Purchase - C&F

**General Note: BHARAT HEAVY ELECTRICALS LIMITED**

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(A Government of India Undertaking)
HIGH PRESSURE BOILER PLANT
PURCHASE DEPARTMENT - FOSSIL BOILERS
THIRUCHIRAPALLI - 620014
TAMILNADU (INDIA)

PHONE : 2577480
GRAMS : BHARATELEC
FAX NO: 2520719
E-mail :
Web :

OFFICE COPY	Collective No.	Enquiry Date	Due Date For Quotation
	1401600025	20.06.2016	14.07.2016
Please quote Enquiry No, Date and due date in all correspondences. This is only a request for quotation and not an order			

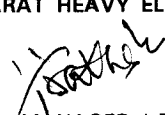
Item	Description	Unit	Quantity	Delivery Quantity	Schedule Date
10	D13130101262 Manhole Drain Nozzle As per Drg. No. 3-93-170-05163 Rev.04	NO	10.000	10.00	23.01.17
20	D13130101263 Drain Nozzle As per Drg. No.3-93-170-05164 Rev.03	NO	10.000	10.00	23.01.17

General Note:

1. Supply of Forged nozzles to be supplied as per material specification DIN 17440-1.4550 or 1.4541 & PB-M-96.
2. Manhole Drain Nozzle to be supplied as per Drawing. No. 3-93-170-05163/Rev.04. Supplier to give acceptance.
3. Drain Nozzle to be supplied as per Drawing. No. 3-93-170-05164/Rev.03. Supplier to give acceptance.
4. Supplier to give clause by clause acceptance for requirements given in PB-M-96. Supplier has to clearly mention against each PB-M-96 clause and respective sub clause whether it is acceptable/not acceptable/deviation (if any).
5. UT must be carried out as per PB-M-90 Rev 01 clause 8.1. Refer Fig. 3 for scanning directions. Supplier to give acceptance.
6. Test samples to be taken "per Melt, per Heat Treatment Batch, per Size" for meeting the tests requirement given in PB-M-96.
7. Final acceptance of the offers will be based on NPCIL recommendation.
8. Inspection agency for imports are BHEL approved third party -TUV (NORD), SGS and BV only.
9. Inspection agency for indigenous supply are BHEL and NPCIL.

The offers should reach us 30 minutes before the time of opening of tenders.
The offers will be opened at 14.30 hrs on the due date of tender in the presence of tenderers who have submitted their offer and who may like to be present for the tender opening. Late and delayed offers are liable to be rejected.

Yours faithfully,
For **BHARAT HEAVY ELECTRICALS LIMITED**


MANAGER / PURCHASE
(FOSSIL BOILERS)



BHARAT HEAVY ELECTRICALS LIMITED

(A Government of India Undertaking)
HIGH PRESSURE BOILER PLANT
PURCHASE DEPARTMENT - FOSSIL BOILERS
THIRUCHIRAPALLI - 620014
TAMILNADU (INDIA)

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1401600025 / 20.06.2016

23505

10. For indigenous supply chemical composition and mechanical tests to be carried out in NABL accredited laboratory only.
- 11.,,The actual production of material is permitted only after review/approval of manufacturing /Testing /Inspection Drawing/Documents and Quality Assurance Plans (QAP) by BHEL and NPCIL. To prepare QAP & UT procedures vendor shall refer the attached formats A & B.
- 12.,,Dispatch clearance for material shall be given after acceptance of Test Certificates by BHEL & NPCIL.
- 3.,,Three sets of documents containing Test Certificates, copies of the approved Procedure, DCR, and Drawing etc. to be provided along with the supply of raw material.
14. All the items given in Enquiry must be of same melt no. therefore, All the items in this tender will be considered as a single package for evaluation and ordering.
15. PBG shall be issued before the dispatch / Shipping of the materials-PBG shall be strictly as per BHEL format only.
16. Please confirm against each point in the TERMS AND CONDITIONS attached, sign and attach along with the offer.
17. Offer (Including all enclosures)shall be signed and stamped in each page by authorized representative of the bidder or else offer may be liable for rejection.

Enclosures:

"LD clause has to be confirmed without fail."

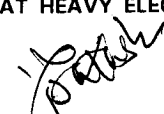
The bidder along with its associate / collaborators / sub-contractors / sub-vendors / consultants /service providers shall strictly adhere to BHEL fraud prevention policy displayed on BHEL website <http://www.bhel.com> and shall immediately bring to the notice of BHEL Management about any fraud or suspected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

PR Links

Material.	PR.No	PR.Item.	Quantity	Acc. Assign	Customer Number
D13130101262	115611922	00010	10.000	/000000	

The offers should reach us 30 minutes before the time of opening of tenders. The offers will be opened at 14.30 hrs on the due date of tender in the presence of tenderers who have submitted their offer and who may like to be present for the tender opening.Late and delayed offers are liable to be rejected.

Yours faithfully,
For BHARAT HEAVY ELECTRICALS LIMITED


MANAGER / PURCHASE
(FOSSIL BOILERS)
Yours faithfully,



BHARAT HEAVY ELECTRICALS LIMITED

(A Government of India Undertaking)
HIGH PRESSURE BOILER PLANT
PURCHASE DEPARTMENT - FOSSIL BOILERS
THIRUCHIRAPALLI - 620014
TAMILNADU (INDIA)

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1401600025 / 20.06.2016

23505

Material.	PR.No	PR.Item.	Quantity	Acc. Assign	Customer Number
D13130101263	115611922	00020	10.000	/000000	

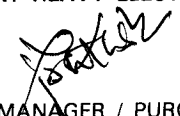
list of suppliers

RFQ-5200005007

Open Tender Dummy Code

The offers should reach us 30 minutes before the time of opening of tenders.
The offers will be opened at 14.30 hrs on the due date of tender in the presence of tenderers who have submitted their offer and who may like to be present for the tender opening. Late and delayed offers are liable to be rejected.

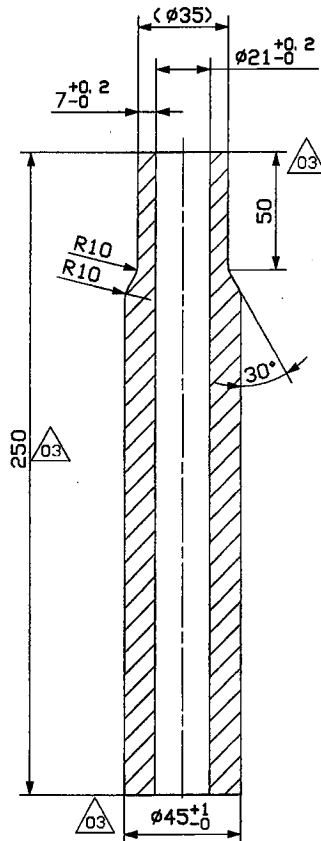
Yours faithfully,
For **BHARAT HEAVY ELECTRICALS LIMITED**


MANAGER / PURCHASE
(FOSSIL BOILERS)
Yours faithfully,

NOTES:-

ALL DIMENSIONS ARE IN MILLIMETERS

1. APPLICABLE SPECIFICATIONS :
I) PB-M-90
II) PB-M-96
2. MATERIAL SPECIFICATION : DIN 17440-1.4550 OR 1.4541.
3. SURFACE FINISH : $\sqrt{3.2}$ OR FINER ALL OVER.
4. THE NOZZLE SHALL BE SUPPLIED IN FINISH MACHINED CONDITION AS SHOWN.
5. FINISHED NOZZLE SHALL BE SUBJECTED TO P.T. IN ACCORDANCE WITH ASTM-E-165 INDICATIONS OF ANY SHAPE AND SIZE ARE UNACCEPTABLE.
6. THE NOZZLE SHALL ALSO BE CHECKED BY 100% U.T AS PER PB-M-90.
7. THE COMPONENT SHALL BE FORGED AS CLOSE TO THE FINISHED SHAPE AS POSSIBLE.
8. DETAILED DRAWINGS INDICATING THE VARIOUS STAGES OF MANUFACTURE SHALL BE SUPPLIED TO THE PURCHASER FOR HIS APPROVAL PRIOR TO TAKING UP THE MANUFACTURE OF THE JOB.
9. WALL THICKNESS INDICATED ARE MINIMUM VALUES.
10. APPROXIMATE WEIGHT : 1.9 kg




TOLERANCE IF NOT SPECIFIED SHALL BE AS BELOW (REFER IS 2102-m)

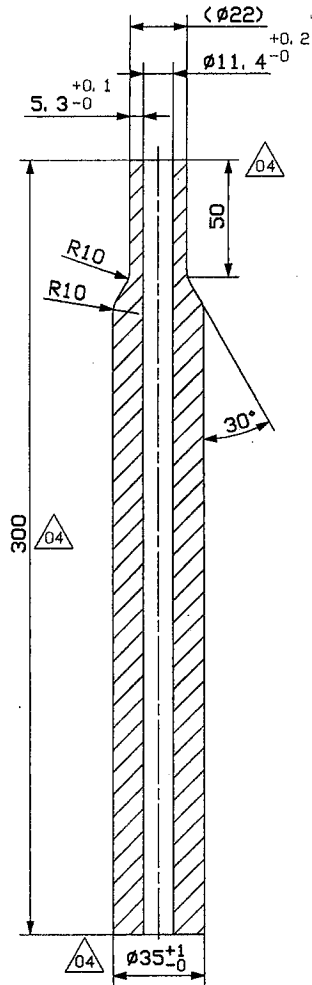
LINEAR		ANGULAR	
0.5 TO 3	±0.1	0 TO 10	± 1'
3 TO 6	±0.1	10 TO 50	± 30'
6 TO 30	±0.2	50 TO 120	± 20'
30 TO 120	±0.3	120 TO 400	± 10'
120 TO 400	±0.5	OVER 400	± 5'

REV	DATE	ALTERED :	REV	DATE	ALTERED :
03	230516	CHD&APPD : [Signature]	01	170409	CHD&APPD : [Signature]
02	171209	CHD&APPD : [Signature]	PROJECT NAME ADDED IN TITLE BLOCK		

DIA OF THE NOZZLE CHANGED TO 45 FROM 43.6 & CORRESPONDING TOLERANCE TABLE REMOVED. DIMM. 245 & 45 CHANGED TO 250 & 50. DIMM. 5 & 10 REMOVED, WHICH IS NOT APPLICABLE FOR THIS DRAWING.

CAUTION: The information on this document is the property of BHARAT HEAVY ELECTRICALS LTD. It must not be used directly or indirectly in any way detrimental to the interest of the company.

TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT		700MWe/KAPP-3/RAPP-7				
 BHARAT HEAVY ELECTRICALS LTD 05-228/D	Bharat Heavy Electricals Ltd		DRN	NAME	DATE	NO. OF VAR
	UNIT: HIGH PRESSURE BOILER PLANT		CHD	N.K.	030908	
	TIRUCHIRAPALLI - 620014		APPD	SOUGAT	130608	
DEPT	GRADE OF UNTOI DIM	SCALE	WEIGHT (Kg)	REF TO ASSY / OLD DWG	ITEM NO	NO OF ITEMS
NC	C/M/F	1:2		TAPP-3&4/33111/5019/DD		
CODE	TITLE		CARD CODE	DRAWING NO :	REV	
150	DRAIN NOZZLE (FORGING)		U 01	3-93-170-05164	03	



NOTES:-

1. APPLICABLE SPECIFICATIONS : PB-M-96 & PB-M-90
2. MATERIAL SPECIFICATION : DIN 17440-1.4550 OR 1.4541.
3. SURFACE FINISH : $\sqrt{3.2}$ OR FINER ALL OVER.
4. THE NOZZLE SHALL BE SUPPLIED IN FINISH MACHINED CONDITION AS SHOWN.
5. FINISHED NOZZLE SHALL BE SUBJECTED TO P.T. IN ACCORDANCE WITH ASTM-E-165 INDICATIONS OF ANY SHAPE AND SIZE ARE UNACCEPTABLE.
6. THE NOZZLE SHALL ALSO BE CHECKED BY 100% U.T AS PER PB-M-90.
7. THE COMPONENT SHALL BE FORGED AS CLOSE TO THE FINISHED SHAPE AS POSSIBLE.
8. DETAILED DRAWINGS INDICATING THE VARIOUS STAGES OF MANUFACTURE SHALL BE SUPPLIED TO THE PURCHASER FOR HIS APPROVAL PRIOR TO TAKING UP THE MANUFACTURE OF THE JOB.
9. WALL THICKNESS INDICATED ARE MINIMUM VALUES.
10. APPROXIMATE WEIGHT : 1.6 kg

TOLERANCE IF NOT SPECIFIED SHALL BE AS BELOW (REFER IS 2102-n)

LINEAR				ANGULAR	
0.5 TO 3	±0.1	400 TO 1000	±0.8	0 TO 10	± 1'
3 TO 6	±0.1	1000 TO 2000	±1.2	10 TO 50	± 30'
6 TO 30	±0.2	2000 TO 4000	±2.0	50 TO 120	± 20'
30 TO 120	±0.3	-	-	120 TO 400	± 10'
120 TO 400	±0.5	-	-	OVER 400	± 5'

REV 04	DATE 230516	ALTERED : [Signature]	REV 03	DATE 171209	ALTERED : [Signature]
DIA OF THE NOZZLE CHANGED TO 35 FROM 33.8 & CORRESPONDING TOLERANCE TABLE REMOVED. DIMN 295 & 45 CHANGED TO 300 & 50. DIMN 5 & 10 REMOVED, WHICH IS NOT APPLICABLE FOR THIS DRAWING.		CHD&APPD : [Signature]	PROJECT NAME ADDED IN TITLE BLOCK		
REV 02	DATE 010709	ALTERED : [Signature]	REV 01	DATE 170409	ALTERED : [Signature]
NOTE-1 & 6 CORRECTED.		CHD&APPD : [Signature]	'KAPP-3' ADDED IN TITLE BLOCK		

CAUTION: The information on this document is the property of BHARAT HEAVY ELECTRICALS LTD. It must not be used directly or indirectly in any way detrimental to the interest of the company.

TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT		700MWe/KAPP-3/RAPP-7					
BHARAT HEAVY ELECTRICALS LTD 05-229/D	Bharat Heavy Electricals Ltd		DRN	NAME N.K	SIGNATURE [Signature]	DATE 010906	NO. OF VAR
	UNIT: HIGH PRESSURE BOILER PLANT		CHD	SOUGAT	[Signature]	130608	
	TIRUCHIRAPALLI - 620014		APPD	V.R	[Signature]	140608	
DEPT NC	GRADE OF UNTOL DIM C/M/F	SCALE 1:2	WEIGHT (Kg)	REF TO ASSY / OLD DWG TAPP-3&4/33111/5018/DD REV-1		ITEM NO.	NO. OF YEARS
CODE 150				DRAWING NO : 3-93-170-05163		REV 04	
TITLE MANHOLE DRAIN NOZZLE (FORGING)				CARD CODE U 01			

BHARAT HEAVY ELECTRICALS LIMITED
MM / PURCHASE - C&F
BHEL, Trichy – 620014

Annexure II

Enquiry Terms and Conditions

Note: This annexure has to be mandatorily filled in and signed by the manufacturer (or) mill and submitted along with Technical bid

S.No.	BHEL Requirements	Supplier Comments (Acceptance or otherwise for each point to be given)
1	<p><u>Material Specification:</u> Supply of Forged Nozzles shall be strictly as per the material specification DIN 17440-1.4550 or 1.4541 and PB-M-96 mentioned against each item of the enquiry.</p>	
2	<p><u>Technical Conditions:</u></p> <ol style="list-style-type: none"> 1. Supply of Forged Shell shall be strictly as per specification DIN 17440-1.4550 or 1.45541 & PB-M-96 mentioned against each item of the enquiry. 2. Supply shall be as per Specification No.PB-M-90 Rev 01 & PB-M-90. 3. Inspection by BHEL-Trichy & NPCIL. 4. TC in FORM IIIC, works TC, Raw Material TC, UT report, MPI report and other test certificates as called in Specification No. PB-M-90 rev 01 & PB-M-96 shall be sent along with supply. 	
3	<p><u>Payment Term (Indigenous)</u></p> <ol style="list-style-type: none"> 1. Payment term is 100% direct payment after 45 days from the date of receipt and acceptance of materials. Any deviation in the above payment term will attract loading as mentioned below. “Base rate of SBI (as applicable on the date of bid opening. Techno-commercial bid opening in case of two part bids) + 6% shall be considered for loading for the period of relaxation sought by bidders. 2. Offers of indigenous Suppliers with payment terms as LC / Advance Payment / Payment through bank are liable for rejection. 	
4	<p><u>Payment Term (Imports)</u></p> <ol style="list-style-type: none"> 1. BHEL Payment term is 100% payment on CAD basis after 45 days from the date of receipt of documents, specified in PO, at BHEL bank. Respective bank charges to respective account. Any deviation in the above payment term will attract loading as mentioned below. “Base rate of SBI (as applicable on the date of bid opening. Techno-commercial bid opening in case of two part bids) + 6% shall be considered for loading for the period of relaxation sought by bidders. 2. In the case of Usance LCs the loading will be considered @ 1.5% on the offered Value. 3. For LC at sight the loading will be considered @ 3.5% on the offered Value. 	

	<p>4. Incase of LC, LC will be opened only on intimation of readiness of material for shipment. LC will not be opened prior to readiness of materials.</p> <p>5. Normally CAD at sight and Confirmed LCs are liable for rejection. However, if CAD at sight is accepted by BHEL, a loading of 5% will be done on the offered Value.</p>	
5	<p>Liquidated Damages / Penalty</p> <ol style="list-style-type: none"> LD shall be 0.5% of the total order value per week or part thereof subject to a maximum of 10% of the total order value. Any deviation from the above LD clause, loading will be applied to the extent to which it is not agreed by the bidder (at offered value). If LD is not accepted on total order value a loading of 10% on the offered value will be done. For CFR contracts LD will be calculated from the date of B/L. 	
6	<p>Bank Guarantee / Warrantee:</p> <ol style="list-style-type: none"> The Bidder, in the event of an order, should furnish a bank Guarantee from BHEL's consortium banks (List attached) or counter-guaranty by vendor's bank to BHEL's consortium banks, at no extra cost to BHEL, in a proforma prescribed by BHEL, provided along with the order, for an amount equivalent to 10% (Ten percent) of the value of the contract. The BG shall be valid for period of 18 months from the date of last shipment or 12 months from the date of receipt / acceptance / at BHEL, TRICHY whichever is later, with a claim period of two months. . (PBG shall be issued before the dispatch / Shipping of the materials)-PBG strictly as per BHEL format only. Supplier to accept guarantee/warrantee of “18 months from dispatch or 12 months from commissioning, whichever is earlier”. Any deviation to this may lead to rejection of the offer. 	
7	<p>Risk Purchase:</p> <p>BHEL at its option will be entitled to terminate the contract and to purchase elsewhere at the risk and cost of the seller either the whole of the goods or any part which the supplier has failed to deliver or despatch within the time stipulated as aforesaid or if the same were not available, the best and the nearest available substitute thereof. The supplier shall be liable for any loss which BHEL may sustain by reason of such risk purchases in addition to LD at the maximum rate mentioned in the LD clause above.</p>	
8	<p>BHEL will consider the ranking after the loading is applied as referred above wherever deviations are observed.</p>	
9	<p>Fixed Price:</p> <p>Prices quoted by the bidder shall be fixed and not subject to any escalation whatsoever during the period of bid validity and execution of the Purchase Order. A bid submitted with an adjustable price will be liable for rejection. Prices shall be written in words and figures. In the event of any discrepancy with regard to total price and unit price whichever is less shall be considered correct. Unit rates quoted should include all the charges like third party inspection charges, packing & Forwarding etc. If the charges are shown separately, the same shall be in % of basic unit rate. No Lump sum charges shall be quoted.</p>	

10	<p>Bid Currency:</p> <ol style="list-style-type: none"> 1. Indian bidders should submit the prices only in Indian Rupees. Foreign bidders may submit their bid in their preferred currency. 2. For evaluation, Exchange rate (TT selling Rate of SBI) as on Techno Commercial bid opening date shall be considered. 	
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	<p>3. Delivery Conditions:</p> <p><u>For Indigenous bidders - Ex-works offers will not be considered.</u> Bidders should submit their offer on FOR Destination, BHEL Stores, Trichy basis. The quote shall include all charges, including testing, packing, inspection, freight and insurance charges, etc.</p> <p>A. Imports:</p> <ol style="list-style-type: none"> a) Bidders should submit their offer for CFR, Chennai Port with freight break up details and place of delivery – INTVT6-CONCOR ICD. <p>FOR CFR INCO TERMS</p> <ol style="list-style-type: none"> b) In the case of CFR terms, the following points are to be addressed in the offer: <ul style="list-style-type: none"> ➤ <u>CONTAINERIZED CARGO:</u> For CFR terms, moved through CONTAINERS (Suppliers should clearly specify this in their offer) it would be presumed by BHEL that the freight charges quoted should be on LILO (LINER IN LINER OUT) basis including extra charges, if any, like Container Imbalance Charges, Trade Imbalance charges or any other charges payable to the Liner. No other charges other than the quoted Freight rate will be paid by BHEL excepting applicable Terminal Handling Charges, Container cleaning Charges, DO charges to Shipping Liner at Discharge Port. If any deviation is taken by Tenderer, a loading of 22% on the freight rate per MT shall be considered by BHEL for arriving at the Total landed Cost. ➤ In case of shipment through Containers on CFR basis, the BL should bear the endorsement that “14 free days for Container Detention is applicable”. ➤ Place of delivery – INTVT6 – CONCOR ICD should be clearly specified in the bill of lading. ➤ <u>BREAKBULK CARGO:</u> For CFR terms, moved through BREAK BULK Basis (Suppliers should clearly specify this in their offer) it would be presumed by BHEL that the freight charges quoted should be on LILO (LINER IN LINER OUT) basis. ➤ Place of delivery – INTVT6 – CONCOR ICD should be clearly specified in the bill of lading. 	
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11	<p>Validity:</p> <ol style="list-style-type: none"> 1. The offers shall be kept open for acceptance for 90 days from the date of Tender opening. Once the tenders are submitted, rates cannot be changed on any grounds. 2. BHEL reserves the right to negotiate L1 rate or re float the tender opened if L1 price is not the lowest acceptable price to them inter-alia other reasons. 3. Any other conditions which might have been quoted by the seller and are in Contravention to the terms prescribed in the order and which have not been specifically accepted in by purchaser will not be applicable to the contract. 	
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12	<p>1. Please submit your offer in TWO part bid (technical cum commercial bid in one cover and price bid in another cover) in single cover. The Covers should be duly super scribed with the ENQUIRY NO and DUE DATE in BOLD letter without fail.</p>	
13	<p>1. Bidders shall submit the OFFER in English language (a single envelope containing two inner envelopes) as indicated below:</p> <p>Envelope 1: This sealed envelope should contain</p> <ol style="list-style-type: none"> (a) technical bid (b) un-priced commercial bid (copy of the Priced Bid without the price details) This envelope should be clearly marked "Part I – Technical and Un-priced commercial bid, indicating Enquiry No., Due Date, Address & Reference of the Bidder. <p>Envelope II: This sealed envelope should contain price details. This envelope should be clearly marked "Part II - Price bid", indicating Enquiry No., Due Date, Address & Reference of the Bidder.</p> <p>2. The OFFER, sealed and Super scribed as "Parts I & II inside" indicating Enquiry No., Due Date, Address & Reference of the Bidder should reach this office on or before the due date by 14:00 Hrs (IST). OFFERS RECEIVED AFTER 14:00 Hrs (IST) WILL NOT BE CONSIDERED FOR EVALUATION.</p> <p>The OFFER to be addressed to:</p> <p style="text-align: center;">The Tender Opening Cell/MM Room No-26 , Building – 24 , Ground Floor Bharat Heavy Electrical Limited Tiruchirappalli- 620014.</p> <p>Note: Bidders are requested to submit their offers only through sealed bids.</p> <p>3. Bidders may submit their bids through email/fax etc.</p> <p>4. Tenders should be free from CORRECTION AND ERASURES, Corrections if any, must be attested.</p> <ol style="list-style-type: none"> A. If, in the price structure quoted for the required goods, there is discrepancy between the unit price and the total price (which is obtained by multiplying the unit price by 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. B. 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. C. 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 to (A) and (B) above. <p>5. Offers from Stockiest, traders will not be acceptable.</p> <p>6. BHEL prefers the manufacturers to quote directly. In case this is not possible and the offer is being submitted by an Indian agent, the following details are to be furnished along with the offer:</p> <ol style="list-style-type: none"> a. The letter from their Principal authorizing the Indian agent to submit the offer on their Principal's behalf. In case the Indian agent submits offer on their own letter head then a covering letter (in original) from the Principal should be enclosed, clearly mentioning that they are bound by the offer submitted by the Indian agent on their behalf. 	

- b. Precise relationship between foreign suppliers and their Indian agents and their mutual interest in business, should be clearly spelt out.
- c. Any payment, which the agent receives in India or abroad, from the foreign supplier, whether as a commission or as a general retainer fee is to be mentioned in the offer.
- d. All services to be rendered by the agent, whether of general nature or in relation to the particular contract, must be clearly stated by the foreign supplier and the Indian agent.
- e. The amount of agency commission agreed to between the foreign principal and the Indian agent should be specifically disclosed and the agency commission will be paid in Indian Rupees only on satisfactory completion of the contract.
- f. Copy of current agency agreement is to be enclosed without which the offer is liable for rejection.

The correspondence between the bidder and BHEL through email is considered to be valid document legally though not signed. It is treated as valid confirmations made on behalf of the respective company and comes under the legal ambit of the business transaction and hence binding on both the parties.

Bidders participating in the tender should declare in their technical bid whether they have been black-listed / kept on hold / given Business holiday for a specified period by any Public Sector Undertaking or Government Departments. The reasons for such action with details and the current status of such hold shall be clearly furnished to BHEL. If no such details are mentioned in the offer, it will be construed that the bidder is not under any such hold. However, at a later date if it comes to the notice of BHEL about any such hold under enforcement, BHEL reserves the right to reject the offer at any point of time and also under any stage of the finalization of the tender. Such bidders will not be permitted to participate in the further tender proceedings and will be communicated suitably.

7. Bidders who are not registered vendor of bhel Trichy have to submit the filled in supplier registration forms (SRF) available in the bhel website - www.bhel.com and the other required documents called for in the SRF (including D&B reports for import vendors along with the technical bid without fail. The same shall be scrutinized as per bhel evaluation procedures.

8. If supplier is not a steel maker then source & form of raw material for the manufacturing shall be submitted product form wise.

9. The manufacturer shall submit filled in forging / forming / pressing supplier facility report.

10. In house test facilities for mechanical, chemical & non - destructive testing are mandatory requirements.

11. BHEL/End customer reserve the right to inspect the item ordered at any stage at vendor's works and if found not to meet the stipulated conditions, material is liable for rejection.

12. Acceptance of TC by BHEL before dispatch is must.

13. Date of price bid opening will be informed later after acceptance of offer on technical ground.

14. Bidders are to confirm all the above points in their "Technical and unpriced commercial bid". Incomplete offers will not be considered. The technical documents submitted for consideration of offer (shall be in English) is to be signed and sealed in original by mill without fail.

15. Suppliers have to submit their registration forms online in BHEL portal (www.bhel.com). The hard copy of the supplier registration form (17 pages) and checklist (1 page) with signatory on all the pages shall be courier to the below mentioned address:

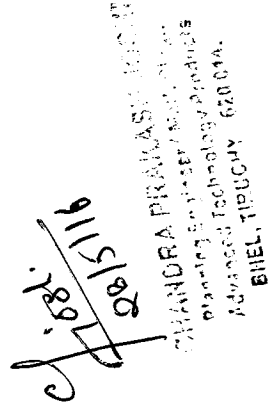
**Mr. EBINESAN,
DGM/SDC/MM,
24 Bldg, IV Floor,
BHEL, Trichy-620014.
Phone- 0431-2577448
e-mail- ebi@bheltry.co.in**

16. Documents not signed and stamped by the authorized signatory of the bidder shall not be accepted and considered for registration / evaluation of the bid etc.

17. Any additional documents submitted by supplier / bidder, during processing of registration application / tender or after placement of order, shall not be accepted unless it is submitted with forwarding letter and duly signed and stamped as mentioned above.

QAP

Supplier Details		BHEL P.O. No.:		QAP NO:		Rev No.		Date:	
Customer Details		PO Date:		Page No:		Item Description : SS Forgings			
Sl. No.	Operation	Characteristics	Type of check/method	Extent of Check	Reference Documents	Acceptance Standard	Format of Records		REMARKS
							vendor	Inspection by	
After Proof machining									
7	NDE	UT		100%	As per PB-M-90 clause 8.1 and approved procedure.	As per PB-M-90 clause 8.1	PR	W	W
		LPI		100%	As per PB-M-96 and approved procedure	As per PB-M-96 and approved procedure	PR	W	W
8	Final Inspection	Dimension Check	visual	100%	AS per PB-M-96 and DIN 17440-1.4550	AS per PB-M-96 and DIN 17440-1.4551	PR	W	W
		Visual Inspection	visual	100%					
		Marking & Identification	visual	100%					
9	Issue of Third Party Inspection & Shipping Release Note	Test Certificates verification	Review of documents		AS per PB-M-96 and DIN 17440-1.4550	AS per PB-M-96 and DIN 17440-1.4550	PR	H	H



CHANDRA PRAKASH

 Planning Engineer/Manufacturing

 Advanced Technology Products

 BHEL, TIRUCHY 620 014.

Sample Format -A

QAP

Supplier Details		BHEL P.O. No.:		QAP NO.:		Rev No.		Date:			
Customer Details		Ref Docs		Page No.:		Item Description : SS Forgings					
Sl. No.	Operation	Characteristics	Type of check/method	Extent of Check	Reference Documents	Acceptance Standard	Format of Records	Inspection by vendor	BHEL	CUSTOMER	REMARKS
1	Raw Material/ Incoming Inspection	Ingot Identification Ladle Analysis Check Analysis	chemical analysis	each heat	AS per PB-M-96 and DIN 17440-1.4550	AS per PB-M-96 and DIN 17440-1.4550	Mill test report	P,R	W	W	
2	Forging	Temperature Reduction Ratio Dimensions	Visual,	Reduction ratio Minimum 3.0, each forging	As per manufacturing process plan and PB-M-96 and DIN 17440-1.4550	As per manufacturing process plan and PB-M-96 and DIN 17440-1.4550	Log Book.	PR	R	R	
3	Heat Treatment	Type of HT	Loading temp; ROH & ROC; Soaking Temp. & Time etc; No. of Test Specimens to be loaded	Each Lot	AS per PB-M-96 and DIN 17440-1.4550	AS per PB-M-96 and DIN 17440-1.4550	HT charts	PR	W	W	
4	Test Coupon	Identification	Stamping	Visual	As per PB-M-96 & approved MSTP	As per PB-M-96 & approved MSTP	Report	PR	W	W	
5	Product Analysis	Product Analysis	chemical analysis	per heat per HT batch	AS per PB-M-96 and DIN 17440-1.4550	AS per PB-M-96 and DIN 17440-1.4550	Test report	PR	W	W	
6	Inspection & Testing	Mechanical Testing	Tensile test (RT) Tensile test (ET 350 °C) Impact Test Hardness Macro Analysis Micro Structure Corrosion Test Ferrite content Inclusion Rating	Per heat per HT batch per size	As per PB-M-96 & DIN 17440-1.4550	As per PB-M-96 & DIN 17440-1.4551	Test report	PR	W	W	

Chit
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 Planning Engineer / Matl. Ping.
 Advanced Technology Products
 BHEL TIRUCHY 620 014.

Sample Format -B(1)

PROCEDURE FOR ULTRASONIC TESTING

UT

- | | | |
|-----|-------------------------------------|--|
| 1.0 | Scope | |
| 2.0 | Technique | Method of testing to be detailed |
| 3.0 | Reference documents | ASME & as per applicable TDC |
| 4.0 | NDT Personnel | Qualification of the personnel to be engaged |
| 5.0 | UT Equipment & Accessories | |
| | (i) Details of the Flaw Detector | Make & Model |
| | (ii) UT probe (Dual/Single Crystal) | Type of Probe
Size of Probe
Frequency
Focal Length |
| | (iii) Angle Beam details | |
| | (iv) Couplant: | Type & Brand Name |
| 6.0 | Equipment Check before use | |
| 7.0 | Surface Preparation | |
| 8.0 | Calibration | Calibration Block /Reference Notch requirements
and its dimensional details |
| 9.0 | Calibration Confirmation | system changes & periodic examination checks |
| 10 | Scanning Plan | Directions of scanning to be given as a sketch |
| 11 | Scanning Procedure | stage of UT
Technique Sheet references
Scanning level
Scanning Speed
overlap % to cover total UT area |
| 12 | Recording | Defect recording |
| 13 | Report to give | (i) recordable indication
(ii) location of recordable indications
(iii) dimensions of the area not inspected
(iv) Purchaser Drg. No. & Order No.
(v) applicable specn., calibration details,
Instrument details, surface condition, couplant
and Search Unit |
| 14 | Quality Levels: | |
| 15 | Report Format | |

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20/5/16
CHANDRA PRAKASH JOSHI
Planning Engineer / Matl. Eng.
Advanced Technology Products
B.

Sample Format - B(2)

ULTRASONIC TEST CERTIFICATE

Certificate No. & Date:-

Customer :-

Work Order No.:-

Purchase order No & date:-

Item No.	Component	<u>Drg.No./Size (in mm)</u>	<u>Qty.</u>	<u>Job Sl. No.</u>	<u>Group No.</u>	Material Specification

Ultrasonic Test Method:-

Details of the equipment used:-

Surface Condition		Type of couplant used & Brand Name	
Search Unit (including Sl.No)		Scanning	
Search Unit Size		Range (mm)of CRT	
Frequency		Pulse Energy	
Ultrasonic Test Standard		Amplitude	
Acceptance Standard		Supression	
Applicable Procedure,,Specification with R		Type of cable and length	
Identification of Calibration Block		Oerator Name	
Examination Conducted Surface		NDE Qualification Level	

ATTENUATOR SETTING

(i) Attenuator Reference Standard

(ii) Attenuator Testing sensitivity

TEST RESULT:

REMARKS:

Supplier signature & stamp

Test Witnessed By:

Chandra Prakash Joshi
28/5/16
CHANDRA PRAKASH JOSHI
Planning Engineer / Matl. Png.,
Advanced Technology Products
BHEL, TIRUCHY 620 014.

Sample Format - B(3)

TABLE
(to be followed for UT)

Drg. No. Reference			
Stage of Examination	After HT and proof-machining (semi-finished) condition		
Size of the proof-machined solid forging	Dimension after proof-machining for UT to be given.		
Type of Beam	NORMAL	NORMAL	ANGLE BEAM (45°)
Position of Scanning	with reference to Sketch	with reference to Sketch	with reference to Sketch
UT Reference Block details	hole details	hole details	Notch details
Direction of Scanning	Sketch to be given		

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SPECIFICATION

NO. PB-M-96

STAINLESS STEEL PLATES, FORGINGS, BARS
ETC. FOR GENERAL APPLICATION

ISSUE

No.	DETAILS	INITIAL	No. OF PAGES	DATE
1	Original		4	May 88

COMPILED BY V.K. SHARMA *V.K. Sharma* REFERENCE FILE NO. 5NP/33111

APPROVED BY CH. SURENDAR *Ch. Surendar*
6/5/88
6/9/88

STAINLESS STEEL PLATES, FORGINGS, BARS ETC.
FOR GENERAL APPLICATION

1.0 SCOPE

This specification establishes the technical requirements for the material, manufacture, inspection, examination, testing and supply of stainless steel plates, forgings, bars etc. for general application. The requirements stated herein are additional technical requirements over DIN 17440 for the supply of material number 1.4550/1.4571.

2.0 Steel Melting

The steel shall be melted in an electric furnace, vacuum degassed and fully killed.

3.0 Supply Condition

Material supply condition C₂, e, h, etc. shall be as indicated with the material number in the purchase order.

4.0 Chemical Composition

Both ladle and product analysis shall meet the requirements of DIN 17440-1.4550/1.4571 as applicable.

5.0 Mechanical Properties

Mechanical tests at ambient temperature and high temperature tensile test at 350°C shall be carried out from each heat treated batch and shall conform to the requirements of DIN 17440. For bars over 100 mm. in diameter, the impact and tensile specimens shall be taken in transverse direction.

6.0 Corrosion Test

Intergranular corrosion test shall be carried out as per ASTM A 262 Case E with preceding heat treatment at 650°C/30 minutes.

7.0 Ferrite Content

For materials subjected to autogenous welding, the ferrite content in the molten base metal shall be determined for each melt and for each heat treatment batch. The ferrite content thus determined shall be within 5 to 10%. No net like arrangement is acceptable.

The melting of the base metal for this purpose shall be carried out using a TIG torch simulating the welding conditions which shall be furnished by the Purchaser on placement of order.

8.0 Dimensional check and visual examination

Each material shall be visually examined and checked for dimensional requirements as per Purchase Order.

9.0 Mix-up Test

Every material shall be tested to detect any inadvertent mixup.

10.0 Test Reports/Certificates

Five (5) copies of all test reports/certificates shall be sent to the purchaser immediately after completion of tests/inspection, prior to the shipment of the material. One set of test reports/certificates shall be despatched along with the material. Following reports shall be submitted:

- a) Chemical Analysis (Ladle and Product)
- b) Heat Treatment details (heat treatment charts shall be sent after completion of the contract.
- c) Results of mechanical properties.
- d) Intergranular corrosion test report.
- e) δ ferrite measurement.
- f) Visual and dimensional test report.
- g) Result of micrograph and grain size.
- h) Hardness values.
- i) Ultrasonic examination and liquid penetrant examination.

11.0 Marking and Identification

Each product shall be marked with the following information:

- a) Heat number.
- b) Direction of rolling (for plates).
- c) Material designation.

- d) Supply condition.
- e) Manufacturers name.
- f) Inspection agency/Purchaser's seal.
- g) purchase order number.

12.0 Non Destructive Examination

12.1 Ultrasonic Examination:

All products shall be ultrasonically examined covering 100% of the volume. The forgings shall be examined in accordance with para 8.1 of PB-M-90. Other products shall be examined in accordance with the product specifications.

12.2 Liquid Penetrant Inspection:

All forgings in finished shape shall be examined by liquid penetrant method in accordance with ASTM-E-165 with following additional requirements.

- a) Penetrants, developers and cleaning agents containing more than 25 ppm each of Sulphur and Halogens shall not be used.
- b) Application of penetrant and developer from aerosol type of spray cans is preferred.
- c) The temperature of the area examined shall not be lower than 10° C.
- d) All traces of penetrant and developer shall be removed after completion of the examination.

Acceptance Standard:

Indications of any shape and size are unacceptable.

13.0 Repairs:

Repair is generally not permitted. Slight surface defects may be smoothly ground and blended without impairing the minimum wall thickness. No other repairs shall be carried out without prior approval of the Purchaser.

14.0 Quality Surveillance:

All material shall be subjected to quality surveillance by the Purchaser or his authorised agency during manufacture. The material shall not be supplied until the shipping release is given by the Purchaser or his authorised agency.

15.0 PACKING AND SHIPMENT

The materials shall be packed suitably with adequate bracing, and blocking to withstand transshipment and tropical storage for two years. The packages shall be released for shipment only after inspection and issue of "shipping release" by the purchaser or his authorized agency. Each box shall contain the test certificates in respect of the material contained. Details of items packed including material specification, Purchase order number and destination shall be clearly marked on the Packages.

SPECIFICATION

NO. PB-M-90

LOW ALLOY STEEL FORGINGS.

ISSUE

No.	DETAILS	INITIAL	No. OF PAGES	DATE
1	Original with Annexure 1 Annexure 2 Annexure 3		33 3 3 3	Feb. 1988 Feb., 88. Feb., 88. Feb., 88.
2.	Fig 2, 4 & 5 revised.	Blank		Oct 2006

COMPILED BY V.K. SHARMA *V.K. Sharma* REFERENCE FILE NO. 5NP/33111

APPROVED BY CH. SURENDAR *Surendar*
4/2/88

4354


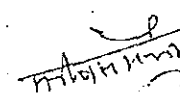
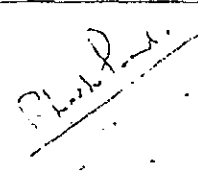
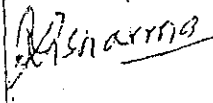
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REVISION CONTROL SHEET

DOCUMENT TYPE : TECHNICAL SPECIFICATION

NO. : PB-M-90 / Rev. No. 01

TITLE : Technical Specification for Low Alloy Steel Forgings

Rev. No. & Date	Description Of Revision	Revised by (Name & Signature)	Checked by (Name & Signature)	Reviewed by (Name & Signature)	Approved by (Name & Signature)
Rev. 01 06/10/2006	Fig. 2, 4 & 5 revised	 (Ajit K. Shit) Exec. Engr.	 (M.R.S. Saxena) ACE	 (Bhaskar Pandit) ACE	 (M.K. Sharma) ACE

7.5 Chemical Analysis

Chemical analysis shall be carried out in accordance with ASTM-E 30 & ASTM-E 350. If the ingot is made from one heat, only one ladle analysis is required. However, in case of an ingot made from more than one heat, weighted average shall be reported.

For product analysis, samples from each STC shall be analysed. Samples for chemical analysis shall be taken from a depth of 1/4 t from any tempered wall surface and at least at a distance of 1/2 t from the heat treated edge of the coupon. Broken mechanical test specimens may be used.

Apart from STC samples the chemical composition shall also be determined as required by individual product specifications.

7.6 Mechanical Tests

The extent of tests required for each product has been included in tabular form under the product specifications.

For tension test, one specimen shall be tested from a sampling point at room temperature and at 350 deg-C. For impact test, one set of 3 Charpy-V notch specimens shall be tested at a given temperature.

NDT temperature shall be determined using STC Pellini specimens from one location. The NDT temperature so determined shall also be confirmed by tests on two transverse STC & RTC specimens from other locations.

7.7 Sulphur Prints (Baumann Prints)

Sulphur prints shall be prepared for each forging at the location and area specified in the relevant product specification.

8.0 NON DESTRUCTIVE EXAMINATION

8.1 Ultrasonic Examination

All forgings after the final heat treatment and machining shall be ultrasonically examined in accordance with SA-388, recommended practice for Ultrasonic Examination of Heavy Steel Forgings. Where ultrasonic examination is not feasible or only partially feasible due to the final component geometry after machining, examination shall be carried out for acceptance in the semi-machined condition. The forgings shall be examined for the total volume using both straight beam and angle beam search units, observing the scanning directions as indicated in figure 2, 3 and 4.

The reference level for the straight beam examination shall be 6 mm diameter flat bottomed hole for $t > 100$ mm and 3 mm for $t < 100$ mm. For angle beam examination a 3 mm wide x 12 mm long x 0.03 t deep notch (3 mm maximum depth) where t is nominal thickness of the material.

All recordable indications (above 20 % of reference level), apparently within acceptable limits shall be investigated to confirm that they are parallel to the forging faces and not in the transverse direction i.e. not in the thickness direction. Defect indications exceeding 20 % of the reference level in thickness direction and exceeding the reference level parallel to the forging faces are not acceptable. In case of tube sheet with integral hub, the hub and the portion in the tubesheet underneath the hub for a depth of at least one hub thickness, shall be free from defect indications equal to or above 3% hub thickness. Similarly, in case of forgings with integral protrusion the protrusion for a depth equal to the thickness of the protrusion shall be free from defect indication greater than or equal to the protrusion thickness.

When a cluster of small indications are obtained on the screen whose amplitudes cannot be resolved, then the gain shall be adjusted to give a back echo equal about 80% of full screen height on an adjacent defect free region. At this gain setting, the cluster of indications causing loss of back echo shall be a cause of rejection of the forging. Loss of back echo is assumed when the back reflection falls below 5% of full calibration screen height. Additionally, at such locations the sound attenuation shall be measured. The sound attenuation at 2 M Hz shall not be more than 4DB/Meter of single sound path.

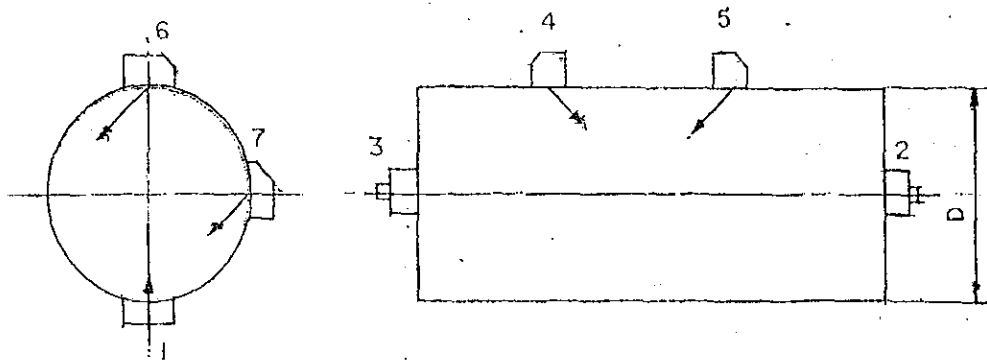
Examination of forged bars must be performed from both thickness faces and from the cylindrical surface with normal beam probes. Additional scanning in the circumferential direction with 35 deg. angle beam probes shall be carried out for bars larger than 120 mm in diameter. The acceptance standard shall be as follows:

D < 50 mm	C.R.R. - 2 mm
D > 60 mm	C.R.R. - 3 mm
D > 120 mm	C.R.R. - 4 mm

(C.R.R. - Circular Reference Reflector)

8.2 Magnetic Particle Examination

Each forging after final machining, shall be examined by magnetic particle method (MT) in accordance with ASME



NOTES:-

1 | 1-3 NORMAL BEAM SCAN

2 | 4-7 ANGLE BEAM SCAN

3 | SCANNING

3.1 | ① FOR ALL BARS.

ADDITIONAL

3.2 | ② & ③ FOR $D > 60$ mm.

IF EVALUATION NOT POSSIBLE ④ + ⑤ WITH 45°

3.3 | ⑥ & ⑦ FOR $D > 120$ mm WITH 35° PROBE.

FORGED BARS

FIG.- 3



FORGE SHOP

- 1.00.00 Name of Company, Address
- 2.00.00 Type & No. of Forging Press : Forging hammer
Capacity - (Tonnes)
- 3.00.00 Max. size of Material that can be handled
dimensions, weight and type of materials.
- 4.00.00 Production with relevant standards (for last three years)
- Carbon Steel
- Stainless Steel
- Alloy steel
- Inconel -
- 5.00.00 Heating Facilities -
- 5.10.00 Furnace - No. and capacity
- 5.10.10 Type - Oil Fired, Gas Fired, Electric
heating
- 5.10.20 Dimensions
- 5.10.30 Mode of Temperature control & extent
of automation.
- 5.10.40 Temperature recording facilities
- 5.20.00 Distance of heating furnace from Forging Press
- 5.30.00 Handling Facilities - Crane/Truck/Manual/ any other
indicate list of such facility.
- 6.00.00 Availability of in-house Heat Yes/No
Treatment facility
- 6.10.00 If yes: Type of heat treatment possible



FORGE SHOP

- 6.20.00 If no, source of Heat Treatment with relevant details.
- 6.20.10 Annealing -
- 6.20.20 Normalising -
- 6.20.30 Stress Relieving -
- 6.20.40 Quenching: - Water/Oil
Any other Heat treatment? -
- 6.20.50 Type & No. of Furnace -
- 6.20.60 Dimensions, Type of Temp. Control,
Temp - Time Recording facilities.
- 7.00.00 Source of Raw Materials -

Indigenous/imported (Indicate source and quantity of
material procured during last three years)
- 8.00.00 Machining Facilities -

List of machines installed
- 9.00.00 Cutting facilities - Type & No. of Machine

- 10.00.00 Availability of testing facilities Yes/No
- 10.10.00 If no - Indicate source of testing with relevant details
- 10.20.00 If yes :-
- 10.20.10 Chemical Analysis: Method
- 10.20.20 Mech. Testing
- 10.20.21 Hardness testing
- 10.20.22 Metallorgraphy
- 10.20.23 Universal Tensile Testing M/C -
Ambient Low Temp.
- 10.20.24 Any other tests -
- 10.30.00 Non-destructive
- 10.30.10 Radiography



FORGE SHOP

- 10.30.20 Ultrasonic Test
- 10.30.30 Dye Penetration
- 10.30.40 MPI
- 10.30.50 Any other NDE
- 11.00.00 Experience with Third Party/Statutory Agency:
Indicate the agency
- 12.00.00 Source of procurement of Dies & availability for
Machining of such dies.
- 13.00.00 Consistency in supply:
- 13.10.00 Has the vendor produced items of similar nature in
past?
- 13.20.00 Has the vendor maintained delivery commitments in
past?
- 13.30.00 Has there been frequent labor trouble in past?
- 13.40.00 Has there been major upset due to faulty
material management?
- 13.50.00 Is the system of planning & scheduling resilient
enough to overcome temporary setbacks & make
up lost time?
- 13.60.00 Has the vendor got standby arrangement for power?
- 13.70.00 Can the vendor quickly offload the work to other
reliable sub-vendor?
- 13.80.00 Total order booked till date.
- 14.00.00 Remarks:

PLACE:

SIGNATURE WITH SEAL

DATE:

(TO BE STAMPED IN ACCORDANCE WITH STAMP ACT AND THE EXPIRY DATE OF BG MUST BE AFTER 60 DAYS FROM THE DATE OF COMPLETION OF WARRANTY PERIOD)

PERFORMANCE BANK GUARANTEE

In accordance of M/s. Bharat Heavy Electricals Limited (A Government of India undertaking, a company incorporated under the Companies Act 1956 having its Registered Office at “BHEL House”, SIRI Fort, New Delhi 110 049) through its High Pressure Boiler Plant Division located at Tiruverumbur, Tiruchirapalli- 620 014 (hereinafter called ‘the Company’) having entered into a contract withhereinafter called ‘ the said contractor ‘ which term includes ‘suppliers’ for the purpose of this Bond and under the terms and conditions of the contract No..... Dt Between BHEL, Trichy and as per the contract, the contractor / supplier is to furnish a performance Bank guarantee for Rs. for the due performance of the equipment to be supplied under the above referred contract and for the fulfillment of all the terms and conditions of the contract, We(indicate the name of the bank) (herein after referred to as the bank) at the request of (Contractor(s)) do here by undertake to pay the company an amount not exceeding Rs.....against any loss or damage caused to or suffered or would be caused to or suffered by the company by reason of any breach by the said contractor (s) of any of the terms and conditions contained in the said agreement.

2. We(indicate the name of the bank with full address), do hereby undertake to pay the amounts due and payable under this guarantee without any demur, merely on a demand from the Company stating that the amount claimed is due by way of loss or damage caused to or would be caused to or suffered by the Company by reason of breach by the said Contractor(s) of any of the terms and conditions contained in the said Agreement or by the reason of the contractor(s) ‘failure to perform’ the said agreement. 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._____.

3. We undertake to pay unconditionally to the Company any money so demanded notwithstanding any dispute(s) raised by the Contractor in any suit, or proceedings pending before any Court or Tribunal or Arbitration or before any other authority relating thereto our liability under this present being absolute and unequivocal. The payment under this guarantee would not wait till the disputes have been decided by any Court or Tribunal or in the arbitration proceedings or by any other authority. The payment so made by us under this Bond shall be a valid discharge of liability for payment thereunder and the Contractor(s) shall have no claim against us for making such payment.

4. We.....(indicate the name of 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 Agreement and that it shall continue to be enforceable till all the dues of the Company under or by virtue of the said Agreement have been fully paid and its claims satisfied or discharged or till _____ Office / Department/ Division of the Company certifies that the terms and conditions of the said Agreement have been fully and properly carried out by the said Contractor(s) and accordingly discharges this guarantee.

5. (I) Unless a demand or claim under this guarantee is made on us in writing on or before the _____ we shall be discharged from all the liability under this guarantee thereafter. But where such claim or demand has been preferred by the Company with the Bank before the expiry of the said date, the claim shall be enforceable notwithstanding the fact that the said enforcement is effected after the said date.

(ii) For the purpose of this clause, any letter making demand on the Bank by M/s. BHEL dispatched by Registered Post with Ack.Due or by Telegram or by any Electronic media addressed to the above mentioned address of the Bank shall be deemed to be the claim / demand in writing referred to above irrespective of the fact as to whether and when the said letter reaches the Bank, as also any letter containing the said demand or claim is lodged with the bank personally.

6. We(indicate the name of Bank), further agree with the company that the Company 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 agreement or to extend time of performance by the said Contractor (s) from time to time or to postpone for any time or from time to time any of the powers exercisable by the Company against the said Contractor(s) and to forbear or enforce any of the terms and conditions relating to the said Agreement and we shall not be relieved from our liability by any reason of any such variation or extension being granted to the said Contractor(s) or for any forbearance, act or omission on the part of the company or any indulgence by the company to the said Contractor(s) or by any such matter or thing whatsoever which under the law relating would, but for this provision, have effect of not so relieving us.

7. This guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor(s).

8. It shall not be necessary for the company to proceed against the contractor before proceeding against the guarantor-bank and the guarantee herein contained shall be enforceable against them notwithstanding any security, which the company may have obtained or obtain from the Contractor shall, at the time when proceedings are taken against the guarantor hereunder be outstanding or unrealised.

9. Any claim or dispute arising under the terms of this document shall only be enforced or settled in the Courts at Tiruchirapalli.

10. The guarantor hereby declare that it has power to execute this guarantee and the executant has full powers to do so on its behalf under the proper authorities granted to him/them by the guarantor.

11. We(indicate the name of Bank) lastly undertake not to revoke this guarantee during its currency except with the previous consent of the company in writing.

In witness whereof we....., (indicate the name of Bank) have hereunto setout Bank Seal the _____ day _____ month 200

BANK E-MAIL ID:
BANK PHONE NO.
BANK FAX NO:

List of Consortium Bank

Nationalised Bank		Nationalised Bank	
1	Allahabad bank	19	Vijaya Bank
2	Andhra bank		Public Sector Banks
3	Bank of Baroda	20	IDBI
4	Canara Bank		Foreign bank
5	Corporation bank	21	CITI Bank N.A
6	Central bank	22	Deutsche Bank AG
7	Indian Bank	23	The Hongkong and Shanghai Banking Corporation Limited
8	Indian Oversea Bank	24	Standard Chartered Bank
9	Oriental bank of Commerce	25	The Royal Bank of Scotland N.V.
10	Punjab National Bank	26	J P Morgan
11	Punjab & Sindh Bank		Private bank
12	State Bank of India	27	Axis Bank
13	State Bank of Hyderabad	28	The Federal Bank Limited
14	Syndicate Bank	29	HDFC
15	State Bank of Travancore	30	Kotak Mahindra Bank
16	UCO Bank	31	ICICI
17	Union Bank of India	32	Indusind Bank
18	United Bank of India	33	Yes Bank