

Bharat Heavy Electricals Limited
Boiler Auxiliaries Plant, Ranipet- 632 406
SECTION – I

OVM CONTRACT 2019-20

Enquiry No. 667141E

Date: 30.03.2019

BHEL invites offers from eligible OVM vendors for entering into contract for fabrication and supply of Basket frames including painting as per BHEL Engineering Drawings, quality documents and technical specifications and transportation up to BHEL, Ranipet with Vendors own material.

Instructions for offer submission:

- All documents as listed in the index sheet (**Section I to XIII and Annexures A to L**) shall be downloaded from NIT mentioned above. The bidder is advised to go through all the documents, Terms & Conditions detailed under Sections I to XIII and Annexures A to L carefully before submitting their offer for the tender.
- Below mentioned documents will form part of the **Techno-commercial bid evaluation:**
 - SECTION - II : Salient features and General instructions
 - SECTION - IVA : General Conditions of tender
 - SECTION - IVB : Terms and Conditions of the tender
 - SECTION - V : Rate Schedule wise quantity
 - ANNEXURE - A : PRICE BID FORMAT
 - ANNEXURE - B : Integrity Pact
 - ANNEXURE - C : Certification for MSE**
 - ANNEXURE - D : Declaration by the bidder
 - ANNEXURE - E : Checklist for NIT
 - ANNEXURE - F : Affidavit
 - ANNEXURE - G : not applicable
 - ANNEXURE - H : Non-Disclosure Agreement
 - ANNEXURE - I : Not applicable
 - ANNEXURE - J : Vendor Capacity
 - ANNEXURE - K : GST Details

Annexure L: Frame work Confidentiality Agreement cum undertaking shall submitted by Vendor at the time of contract signing. It is mandatory for Vendors to submit Annexure L before signing of contract.

Enquiry No. & Date	667141E Date 30.03.2019
Due Date & Time for Submission Of Offer	13.04.2019 Prior to 09.45 AM
Date & Time for Tender Opening (Other than Price Bid)	13.04.2019 by 10-00 AM
Place for Submission Of Offer	At Tender Box located in Outsourcing department, Third Floor, Administrative Building, BAP/BHEL/Ranipet-632406.
Place Of Tender Opening	MDP Hall At Third Floor/BAP/BHEL/Ranipet

This tender specifies a set of prequalification criteria defining the eligibility for the vendors to quote against the Rate Schedule. The Bidders are advised to go through all the enclosed Tender documents terms & conditions detailed under [Sections I to XII, Annexures- A to L](#), and Rate Schedules carefully before submitting their Offer.

All the [Annexures A to L](#) should be filled, wherever applicable by the bidders without fail for evaluation of their offer and **all necessary Self attested copies of the supporting documents** as required are to be attached.

The bid shall be submitted in [three parts](#) namely (1) EMD – Rs 2.00 Lakhs or Valid MSME certificate (2) Techno Commercial Bid and (3) Price Bid.

Kindly refer to the [Section-IV](#) – General Terms and Conditions of the tender for detailed procedure for submission of offers and details of exemption from submission of EMD for vendors registered with MSME

Kindly refer to [Section-II to Section-IV](#) for detailed scope. Sealed Tenders are hereby invited from experienced Contractors for the above scope.

Note: Vendors banned by any of the BHEL units are not eligible to participate in this tender.

Contact details / address for any clarification and for Offer submission.

Deputy General Manager-(Contracts)
Outsourcing Department, Boiler Auxiliaries Plant
Bharat Heavy Electricals Limited, ,Ranipet-632406
Phone : 04172-284030, 284158, 241170
E-Mail : gsugumar@bhel.in, ssvasan@bhel.in ,

➤ **Integrity Pact:**

- The Integrity Pact-[Annexure ‘B’](#) is an integral part of this Tender. Vendors shall submit the dully filled and signed Annexure-B along with other documents which form part of the techno-commercial offer.
- Any offer received without Annexure-B Integrity pact duly signed and stamped, will be rejected.
- “Integrity Pact” is applicable as per Govt. guidelines & all suppliers shall submit the Integrity Pact duly signed.
- IP is a tool to ensure that activities and transactions between the Company and its Bidders /contractors are handled in a fair, transparent and corruption free manner. A panel of Independent External Monitor (IEMs) have been appointed to oversee implementation of IP in BHEL.
- The IP as enclosed with the tender (Annexure-B) has to be submitted (duly signed by authorized signatory who signs in the offer) along with offer. Only those bidders who have entered into such an IP with BHEL would be competent to participate in the bidding. In other words, entering into this Pact would be a preliminary qualification.
- Please refer Section-8 of Annexure-B i.e. the IP for Role and responsibilities of IEMs. In case of any complaint arising out of the tendering process, the matter may be referred to the IEM mentioned in the tender.
- As per BHEL’s Fraud prevention Policy, Nodal officers were nominated by BHEL Management. The details of such Nodal officers are furnished below:

Name	Designation	E-mail	Phone (Office)
C.P.Chengappa	GM - NP, Services & PC	chengappa@bhel.in	04172-284587
P.Ravikumar	GM - MM	pravi@bhel.in	04172-284450
S. Anilkumar	GM – C&M	sanil@bhel.in	04172-284681
P.Raguraman	GM – O	prr@bhel.in	04172-284574
S.Kannan	GM - Finance	skannan@bhel.in	04172-284518
B. Srinivasa Rao	GM – Quality	bsrao@bhel.in	04172-284945
M. Vijayakumar	AGM- HR & DTG,S&OM & Civil	vijay@bhel.in	04172-284618

Any bidder / contractor who come across any fraudulent behaviour of BHEL's employees may communicate the same to any / all of these Nodal officers.

No routine correspondence shall be addressed to the IEM (Phone/post/email) regarding the clarifications, time extensions or any other administrative queries, etc. on the tender issued. All such clarification/ issues shall be addressed directly to the tender issuing (procurement) department.

Corrigendum:

Latest updates on the important dates, Amendments, Correspondences, Corrigenda, Clarifications, Changes, Revisions, etc. to Tender Specifications will be hosted in BHEL web site only under the NIT No. mentioned above.

The bidder along with its associate/ collaborators/ sub- contractors/ sub-vendors/ consultants/ service provider 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.

For any clarification required in this regard, the Bidders may contact:

Deputy General Manager / Contracts
Outsourcing Department, Boiler Auxiliaries Plant
Bharat Heavy Electricals Limited, Ranipet-632406
Phone : 04172-284030, 284158, 241170
E-mail: gsugumar@bhel.in, ssvasan@bhel.in

AGM/ Outsourcing
BHEL-Ranipet

****MSE suppliers can avail the intended benefits only if they submit along with offer, attested photocopies of either (i)EM II certificate having deemed validity (Five years from the date of issue of acknowledgement in EM –II) or valid NSIC certificate or EM II certificate where the deemed validity of EM II is over along with (ii) CA certificate or Udyog Aadhar Memorandum (UAM) along with CA certificate (Format enclosed as per Annexure C applicable for the year, certifying quantum of investment in plant and machinery within the permissible limit as per the act for relevant status (Micro or small) where the deemed validity of EM II is over. Date to be reckoned for determining the deemed validity will be the last date of technical bid submission. Non submission of such documents will lead to consideration of their bids at par with other Non MSME bidders and MSME status of such suppliers shall be shifted to Non MSME supplier till the supplier submits these documents.**

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SECTION II – SALIENT FEATURES OF NIT

- 1) This is a notice inviting offers in three part bid through Open Tender from eligible OVM vendors for entering into a contract with BHEL for manufacturing of Basket frames including two coats of Red oxide Zinc Phosphate Painting as per BHEL Engg. Drawings, Quality Documents and Technical Specifications and transportation of finished products to BHEL, Ranipet.
- 2) The tentative quantity for this tender will be **442 MT**. This quantity is subject to receipt of orders by BHEL & clearance by customer.
- 3) Price Variation Clause (PVC) will not be applicable
- 4) The vendor shall not sublet or assign this work or any part thereof without the written permission of BHEL.
- 5) The detailed procedure for loading of urgently required items and PO cancellation has been included in this tender.
- 6) Vendor shall quote rates on “**PER MT**” basis, inclusive of cost incurred in procurement of raw material (including direct materials, consumables etc.), fabrication as per drawings indicated, handling charges, and dispatch of finished jobs direct to BHEL, Ranipet. The scope of work is detailed under ‘terms & conditions of **Section IV B**’. Drawings indicated are only representative, which covers the typical work content for that particular rate schedule. All representative drawings may be studied carefully to assess the work content, before quoting.
- 7) Rates quoted in any other format/ in any other units (other than MT) may not be accepted and may be rejected.
- 8) **PERSON AUTHORIZED FOR SIGNING THE TENDER DOCUMENTS:**
 - a) The tender documents shall be signed by the Authorized Signatory Only. Authorized signatory shall be the person holding “power of attorney” on behalf of the firm/company/Bidder-concerned and authorized/empowered, by MD or Board of Directors or owner of the firm, to act on behalf of the firm for quoting this Tender and all proceedings connected with, till finalization and execution of the Contract.
 - b) In case of Single Ownership / Proprietorship establishment, tender shall be signed by the Owner / Proprietor Only.
 - c) In case of partnership Firm under Partnership Act, the tender shall be signed by all the Partners of the firm or by the Managing Partner who have Signature and Seal of the Firm authorized to do so or by a person holding the Power of Attorney on behalf of the Partnership Firm.

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SECTION II – SALIENT FEATURES OF NIT

- d) A copy of the Partnership Deed and/or a copy of the Power of Attorney, attested by a Public Notary shall accompany the offer.

9) EVALUATION OF PART I OFFER:

The offer submitted by vendor shall be subjected to evaluation as per the Eligibility criteria and submission of required documents. Clarification required from vendors by BHEL, if any shall be furnished by vendors within the time specified and delayed responses beyond the stipulated time lines are liable to be rejected. Results of the evaluation process shall be intimated to all the vendors who have submitted the required documents as per terms and conditions stipulated in the tender documents.

10) Suspension of Business Dealings

- It may please be noted that guidelines/rules in respect of suspension of business dealings', 'Vendor evaluation format' etc. may undergo change from time to time and the latest one shall be followed.
- Offers of Vendors who have been banned or put under hold will not be considered for evaluation. Offers of Vendors who engage the services of Vendors banned by BHEL shall be rejected. The list of banned firms is available on BHEL web site (www.bhel.com ---> Tender Notification - List of Banned Firms).
- Abridged version of extant 'Guidelines for suspension of business dealings with suppliers/ contractors' is uploaded on www.bhel.com on "supplier registration page" at the following link: http://www.bhel.com/vender_registration/pdf/Suspension-of-Business-Dealings-with-Supplier-issued-Sept13_abridged.pdf. The bidders will be dealt by BHEL as per Suspension of Business Dealings guidelines.

11) OTHER INSTRUCTIONS FOR BIDDERS:

- MSE Vendors, to avail the concessions/ subsidies as per Govt. guidelines, should submit the valid MSE certificates along with the Techno Commercial Bid as specified in the Tender Enquiry.
- It will be the firm's responsibility to ensure that the tender documents, drawings, Quality documents and related technical & commercial conditions are studied and understood fully before submitting the offer.
- Offers with deviations to techno commercial terms and conditions which are incomplete / otherwise considered defective / tender submitted is not in accordance with the tender conditions / deviations to the conditions, shall be rejected.

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SECTION II – SALIENT FEATURES OF NIT

- If a firm is found to have given false information / documents as a part of their offer such offers shall be rejected and the firm shall be banned from doing business with all BHEL units.
- If a Bidder's /Contractor's or a firm of Contractors/any of its shareholder's or shareholder's RELATIVE is EMPLOYED in BHEL, BHEL shall be informed in writing of this fact at the time of offer submission. Hiding of such fact may lead to cancellation of tender/Contract/PO, besides other actions as per BHEL's procedures.
- If any correction is to be made in the offer by the firm, his//her/their Representative, must be authenticated by the firm who has signed the original tender.
- Vendors are instructed to fill the details ONLY in the space provided in all Annexures. Changing the formats, price bid formats or modifying the contents of formats or any other insertions/ deletions will be construed as tampering of BHEL's process, and the offer of the concerned vendor may be rejected.
- Vendor should note that BHEL has full discretion to decide to order the quantity in OSB route through separate tender instead of OVM process.
- BHEL reserves the right to operate or close the tender partly or fully.
- Rates quoted by vendor shall be valid for **6 months** from the date of Part-I opening.
- Subsequently, a contract shall be entered with successful bidder and contract shall be valid for **6 months** from the date of finalization of tender.
- No revision of price(s) shall be entertained after opening of Part – I offers.
- All entries in Tender documents shall be clearly written in one ink or typed.
- BHEL will conclude that the offer has been submitted by the firm fully understanding all the requirements both explicit and implied and other conditions and accepting the same. After tender opening, the bidders are not allowed to change / alter any of the conditions either partly or fully. Offers of any such firms doing so will be rejected.
- The entire terms and Conditions contained in all the [Sections I to XIII & Annexures A to L](#) of this tender shall be deemed to form an integral part of this Contract to be entered between the Vendor & BHEL.

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SECTION II – SALIENT FEATURES OF NIT

- In case BHEL finds that vendors join together, form cartel, or influence others / new vendors to submit offers in their favor, then BHEL will take severe action against such vendors including permanent blacklisting / banning of such vendors for BHEL's Business.
- Bidders will be disqualified from BHEL vendors list and business with them will be suspended by BHEL, if it is found that they indulge / carry out activities / business which are in direct competition or detrimental to BHEL business and accordingly such vendor shall be banned.
- As a policy, BHEL is not registering any power of attorney issued by contractors/suppliers in favor of their bank for the collection of invoice amounts on behalf of contractors/suppliers. Merely, because BHEL had acted upon any such request by the party or their bankers does not constitute any legal right or binding on BHEL for any acts of omissions and commissions or failure to act upon it or for any payment made directly to the party. If any banker includes BHEL also as a **party** to any such dispute between the banker and the **party**, all legal and incidental expenses thereof will be recovered from the concerned parties only.

15.0 DECLARATION:

All the Annexures also form part of the tender terms and conditions. The Tenderer shall furnish signed and seal [Annexure-D](#) along with the offer stating that the tender Terms and conditions have been fully read and understood and the prices quoted are in accordance with the same.



Bharat Heavy Electricals Limited
Boiler Auxiliaries Plant,
Ranipet – 632 406
Phone : 04172 – 284030,284158

SECTION IV A - GENERAL CONDITIONS OF NIT

I- DEFINITIONS

Throughout these conditions and in the specifications **“THE CONTRACTEE” means the Bharat Heavy Electricals Limited**, acting through the General Manager/OUT SOURCING, Ranipet, unless the context otherwise provides **“THE CONTRACTOR/VENDOR ”** means the person, firm, vendor or company with whom the Purchase Order under this contract is placed and shall be deemed to include the Contractor’s successors (approved by the Contractee) representatives, heirs, executors and administrators as the case may be unless excluded by the terms of the Contract. **“DRAWINGS”** means the drawings exhibited or provided for the guidance of the Contractor by the Contractee.

II- EXECUTION

The whole contract is to be executed in the most approved substantial and workman like manner to the entire satisfaction of the Contractee, or the Inspecting Officer who shall have power to reject any of the Structural which he may disapprove; and his decision thereon and any question as to the true intent and meaning of the specifications of drawing or of the work necessary for the proper completion of the contract, shall be final and conclusive. The contractee may require alteration if any to be made during the progress of work and should these alterations be such that either party to the contract considers as an alteration involving change in cost such alteration shall not be carried out until amended cost have been submitted by contractor and accepted by the Contractee. Should the Contractor proceed to work without obtaining the consent of the Contractee in writing to an amended cost of work the Contractor shall be deemed to have agreed to execute the work at such charges as may be considered reasonable by the Contractee.

III- FORCE MAJEURE

If any time during the continuance of this Contract the performance in whole or part by either part of any obligation under this contract shall be prevented or delayed by reasons of war, hostilities, acts of public enemy, civil commotions, sabotage, fires, floods, explosions, epidemic quarantine restrictions or acts of God (herein referred to as events), provided the notice of the happenings of any such events is given by either party to other party within 21 (Twenty one) days from the date of occurrence thereof, either party shall by reason of such event not be entitled to terminate this contract, nor shall either party have any claim for damages against the other in respect of such non-performance and delay in performance and delivery under the contract shall be resumed as soon as possible after such event has come to an end or ceased to exist and the decision of the Contractee as to whether such event has come to an end or has ceased exist shall be final and conclusive. If the performance in whole or part of any obligation under this contract is prevented or delayed by reason of any such event, claims for extension of time shall be granted for periods considered reasonable by the Contractee subject to prompt notification by the Contractor to the Contractee of the particulars of the

events and supply to the Contractee if required of any supporting evidence. Any waiver of time in respect of partial instalment shall not be deemed to be a waiver of time in respect of remaining work schedules.

IV- TERMINATION OF CONTRACT/RISK PURCHASE

If as a result of difficulty in procurement of materials which is justified with proper documentary evidence and BHEL's concurrence or due to force majeure reasons or any other reasons whatsoever the contractor is unable to keep the delivery schedule of the Contractee, the Contractee to the extent considered necessary may grant extension of time. Should there be delay in work, beyond the extended date of delivery, it shall be open to the Contractee to terminate the contract in part or full and make other arrangements for executing work elsewhere at the cost and risk of the Contractor. Any cost implication towards such alternate procurement shall be recovered from the Contractor

V- INTERPRETATION

The Contractee shall decide any dispute or difference of opinion in respect of the interpretation, effect or application of this particular condition of the Contract or the amount recoverable hereunder from the contractor and the decision shall be final and conclusive.

VI- BOOK EXAMINATION CLAUSE:

The Contractor shall whenever required produce or cause to be produced for examination by any Officer of the Contractee authorized in that behalf, any cost or other account book or account voucher, receipt letter, memorandum, paper or writing or any copy extract from any such document and also furnish information and returns verified in such a manner as may be required in any way relating to the execution of this contract or relevant for verifying or ascertaining the cost of execution of this contract (the decision of such officer of the Contractee on this question or relevancy of any documents, information or return being final and binding on the Parties). The obligation imposed by this clause is without prejudice to the any other obligation under the contract / purchase order or under any statutes/ rules or orders binding the contractor. The contractor shall if the authorized officer or the Contractee so required (whether before or after the prices have been finally fixed), afford facilities to the officer of the Contractee concerned to visit the contractors works for the purpose of examining the process of manufacture and estimate or ascertaining the cost for production of the articles, if any portion of the work be carried out by a sub-contractor of any subsidiary of an allied firm or company, the authorized officer of the Contractee shall have power to secure the books of such sub-contractor, or any subsidiary or allied firm or company shall be open to his inspection.

VII - SET OFF CLAUSES

Notwithstanding anything contained herein, the payment shall be subject to the deduction of any amount for which the vendor is liable directly or indirectly under this contract or any other contract of the vendor or any other vendor's contract where the proprietor/any of the partners /directors of the present vendor is/are proprietor/director/s /partner/s, in respect of which BHEL, Ranipet is a Contractee"

VIII - LAWS GOVERNING THE CONTRACT

The Laws of Government of India in force shall govern the Contract. Irrespective of the place of the execution of the Contract/ place of payment under the contract, the contract shall be deemed to have been made at the place at which the acceptance of the offer has been issued.

IX - JURISDICTION OF THE COURT

The Courts at Ranipet, Tamil Nadu alone shall have jurisdiction to decide any dispute arising out of or in respect of the contract.

X - THE GLOBAL COMPACT

Global Compact was a signature initiative of the then United Nations Secretary General Kofi Annan and Four United Nation Agencies:

- ❖ Office of the High Commissioner for Human Rights
- ❖ International Labour Organisation
- ❖ United Nations Environment Programme
- ❖ United Nations Development Programme

This is a broad based initiative and engages:

- ❖ Individual Companies
- ❖ Business Associations
- ❖ International Labour
- ❖ Human Rights, Environment and
- ❖ Development Organisations
- ❖ Academic & Public Policy
- ❖ Institutions and United Nations

The Contractee (BHEL) is a member of this Global Compact. As a participating company, we have the obligation to

- ❖ Support and respect Human Rights within our spheres of influence.
- ❖ Make sure we are not complicit in Human Rights abuses.
- ❖ Make sure we are not employing Forced or compulsory labour.
- ❖ Refrain from employing Child Labour
- ❖ Eliminate discrimination in our hiring and firing policies.
- ❖ Support a precautionary approach to Environmental challenges.
- ❖ Undertake initiatives to promote greater environmental responsibility.
- ❖ Encourage development and diffusion of environmentally friendly Technologies

Contractor shall also ensure to fall in line with the above principles.

SECTION IV-B: TERMS AND CONDITIONS

1.0 QUANTUM OF WORK:

- 1.1 The total tentative quantum envisaged for ordering through this Contract is around **442 MT ± 10%** involving complete manufacturing of Basket frames with vendors own material.
- 1.2 The quantity indicated are tentative and may vary during the execution of the contract, depending on the order inflow to BHEL, customer clearance, project progress etc.

2.0 SCOPE OF WORK:

The broad scope of work in respect of all the rate schedules includes:

- 2.1 Procurement of raw materials and consumables like electrodes etc., from BHEL/ NTPC approved raw material sources as per [Section VIII](#), as per the raw material Specifications/ Technical delivery conditions (TDC's) as per [Section IX](#), and quantities as per Drawings/ GMS (Group Manufacture specification) to be issued by BHEL along with purchase orders (PO's) / to be hosted in B2B.
- 2.2 Fabrication of components as per BHEL drawings to be issued along with Purchase order after contract agreement. However, to understand the nature, type & quantum of work content, a set of representative drawings are attached under [Section VI](#).
- 2.3 Fabrication of components shall also be according to the drawings/Quality Plan (QP)/ Quality Work Instructions (QWI) / customer approved quality plans as listed under [Section IX](#).
- 2.4 Surface preparation & Painting/Galvanizing as per the quality documents as detailed in [Section IX](#).
- 2.5 Procurement of all indirect materials, consumables, packing materials required for the completion and the despatch of the jobs. Refer [Section VIII](#) for list of approved sources.
- 2.6 All handling charges till completion of fabrication & despatch up to destination is in Vendor's scope.
- 2.7 All costs towards testing & inspection including Customer/ BHEL/ BHEL nominated agency as per BHEL's QP/PO /Drawings and customer CHP, till obtaining of MDCC (wherever applicable).
- 2.8 Transportation of finished components up to BHEL, Ranipet.
- 2.9 The typical list of raw materials involved is provided under [Section VII](#) for the information of vendors.
- 2.10 The scope of work is further detailed in subsequent clauses.

A. DETAILED SCOPE:

- 2.11 Detailed scope includes procurement of Raw materials and consumables required for manufacture, welding and Painting/ Galvanizing as stipulated in the drawings / QWIs / Welding procedures and stencilling as per clause 'E' referred below.
- 2.12 Only Class-I measuring tapes shall be used which shall be calibrated at BHEL Lab or any NABL, approved Lab before use.
- 2.13 Handling equipment's for movement of finished goods.
- 2.14 Any other item/s required for safe dispatch is included in the scope of vendors. Assembly Items are to be dispatched with adequate bolt which is in the scope of the vendor.
- 2.15 Required equipment's for handling of raw materials/WIP & finished goods should available at Vendor works.

- 2.16 Providing the necessary facilities, gauges, instruments, etc. for carrying out the testing & inspection by customer/BHEL/BHEL nominated agency as per BHEL's QP/PO/Drawings and customer CQP, till obtaining of MDCC is in Vendor scope.
- 2.17 GR posting will be done only on receipt of MDCC. Vendor shall have to co-ordinate with the concerned official for MDCC. For NTPC despatches, GR posting is possible after receipt of MDCC in Outsourcing/BHEL, Ranipet.

B. RAW MATERIAL PROCUREMENT:

- 2.18 Raw materials are to be procured from the NTPC/BHEL approved sources as per BHEL TDC (latest revision) or respective material specification as indicated in the [Section-VIII](#). Raw materials can also be procured from other sources as per guidelines as per the applicable procedure given in [Section IX](#).
- 2.19 Raw materials and paints are to be procured with relevant Test Certificate (TC) and these have to be submitted/ produced in original during inspection. Any test both destructive and non-destructive if required will have to be carried out by the vendors at their own cost. All such reports in original will have to be submitted during inspection. Vendors also shall verify the materials & TC to comply with the QP.
- 2.20 The system for storing and issuing materials shall be available with vendor for easy traceability.
- 2.21 Periodic audit of system of purchasing, storing and issue, etc. will have to be carried out by the vendors. BHEL will also audit the same.
- 2.22 For raw material substitutions requested by vendor if there is increase in weight, no cost escalation will be considered. Drawings/GMS shall not be revised.

C. TRANSPORTATION:

- 2.23 The quoted rates shall be on **“FOR destination (BHEL, Ranipet) basis”** including the cost of transportation, on **per MT basis**,

D. DELIVERY PERIOD:

- 2.24 Timely delivery is the essence of the Contract.
- 2.25 The finished goods should be delivered **within 3 months** from the date of placement of PO. However, the delivery date will be indicated in the Purchase Order as per project requirement or priority.
- 2.26 Staggered delivery wherever applicable will be clearly mentioned at the time of PO placement.
- 2.27 Outsourcing Planning will indicate the delivery date against each item of PO during PO placement in case of staggered delivery.
- 2.28 The finished components have to be despatched as per the despatch priority issued by BHEL at the time of purchase order placement. If staggered delivery is applicable, then delivery should be as per the date mentioned against each line item.
- 2.29 Vendors have to arrange for despatch of the finished goods either in Trucks or Trailer/ Hydraulic axles for safe delivery through their transport carriers. Safe delivery of the goods to BHEL, Ranipet is in the scope of the vendor. Any Deviation/ discrepancy of the materials received, if any shall have to be rectified or replaced by vendor. If the same is not rectified/replaced by the concerned

vendor, the same will be rectified /replaced by BHEL and the cost incurred shall be recovered from the vendor.

- 2.30 Loading of finished goods on Truck / Trailer including packing, lashing wherever required for safe transportation is in the scope of the vendor.
- 2.31 Transit insurance is in the scope of BHEL. Vendors have to communicate in writing to the insurance agency or BHEL as indicated in the Despatch Instruction, the despatch details to enable them to cover the transit insurance. In case of any transit damage to materials, the vendor shall carry out the rectification, and the amount realised from the insurance company shall be paid to vendor. Vendor shall cooperate and provide all documents to claim the damage from the insurance company.
- 2.32 As soon as the despatches are made, vendors have to upload scanned copy of LR, DC and GST Invoice in B2B system.
- 2.33 Vendor should get their clarifications (wrt. Engg drawings, Material substitutions, quality procedural clarifications) resolved **within 30 days** from the receipt of Drawing / PO. Any delays in raising query will have to be accommodated by the vendor within the PO delivery date.

E. PAINING & STENCILING :

- 2.34 The finished product shall be cleaned as per the approved Quality Plan and painted with two coats of Red oxide Zinc Phosphate primer to IS:12744(60 micron) with paints procured from our approved paint manufacturers list vide [Section “VIII”](#). In case of Special Painting Jobs, processing shall be according to the Customer approved Painting Scheme.
- 2.35 The Project name, Work Order No., Number off, DU Number, Weight, and Vendor Code number shall be legibly stencilled for identification and despatch as may be advised.

3.0 GST Compliance in respect of ensuring Input Tax Credit (ITC):

- 3.1 Supplier shall mention their GSTN registration number in all their invoices and invoices shall be in the format as specified/prescribed under GST laws. Invoices shall necessarily contain Invoice number (in case of multiple numbering system is being followed for billing like SAP invoice no, commercial invoice no etc., then the Invoice No which is linked/uploaded in GSTN network shall be clearly indicated), item description as per PO, Quantity, Rate, Value, applicable taxes with nomenclature (like IGST, SGST, CGST & UTGST) separately, HSN/ SAC Code, etc.
- 3.2 All invoices shall bear the HSN Code for each item separately (Harmonized System of Nomenclature)/ SAC code (Services Accounting Code).
- 3.3 A declaration to the effect that all invoice particulars are/were uploaded in the GSTN network/ portal & all tax liability as per GST rules and regulations have been and will be discharged, shall be mentioned in the invoice. If not mentioned in the invoice, a separate declaration shall be submitted as per the requirement of BHEL.
- 3.4 All documents like Test Certificate, LR copy, any other document mentioned in PO, shall be sent along with the vehicle/consignment. For all consignments received within the calendar month, input credit will be availed within that month in line with monthly returns filing cycle. In case of any discrepancy in the document or non-submission of documents mentioned in the PO, then BHEL will not be able to accept or account the material, in such case availing of tax credit will be deferred to next month or so.
- 3.5 In case of discrepancy in the data uploaded by supplier in the GSTN portal or in case of any shortages or rejection in the supply, then BHEL will not be able to avail the tax credit and will notify the supplier of the same. Supplier has to rectify the data discrepancy in the GSTN portal or issue credit note (details to be uploaded in GSTN portal) for the shortages or rejections in the suppliers, within the calendar month notified by BHEL.

- 3.6 For any such delay in availing of tax credit for reasons attributable to supplier (as mentioned above), interest (calculated @ SBI Base Rate + 6%) along with penalty (if any) will be deducted/recovered for the delayed period i.e. from the month of receipt till the month tax credit is availed, from the running bills.
- 3.7 Under GST regime, BHEL has to discharge GST liability on LD recovered from suppliers/contractors. Hence applicable GST shall also be recoverable from suppliers/contractors on LD amount. For this Debit note will be issued by BHEL indicating the respective supply invoice number.
- 3.8 In case any changes in taxes and duties as per Gov. Notification (including GST), the same shall be applicable from time to time.
- 3.9 Duplicate copy of the Invoice meant for the transporter should accompany the material as stipulated under CE Rules 52A and 172C OR 57CE.

4.0 INSPECTION:

- 4.1 Inspection shall be by our Quality Control Department and / or by our customers and / or by an appointed agency or persons authorized by us. Vendor shall provide all facilities and equipment's, calibrated instruments and standard gauges required for inspection free of cost.
- 4.2 The works are deemed to have been completed and accepted, only after the inspector / Agency/Agencies accept/approve the Inspection Report (IR). IR has to be raised as per BHEL B2B format.
- 4.3 Nevertheless, inspection and acceptance of the component does not absolve the responsibility of the vendors against any manufacturing defects noticed later.
- 4.4 BHEL representative from unit or CQ is authorised to carry out audits along with TPIA at Vendor's works before clearing the items for despatch wherever required.

5.0 PRICE VARIATION CLAUSE (PVC):

- 5.1 The rates finalized for this tender is FIRM and NO price variation clause is applicable.

6.0 Evaluation of Price bids:

- 6.1 The Price bid shall be valid for 6 months from the date of Part I opening.
- 6.2 Rate Schedule wise rates (on per MT basis) shall be evaluated on the basis of Lowest quoted rates, and the vendors quoting the lowest rates will be the successful bidder .
- 6.3 Wherever there is tie in L1 rate, revised offer shall be obtained from tied lowest bidders. In case of further tie in L1 rate, lot shall be made to find L1. L1 rate of respective rate schedule shall be counter offered to eligible Vendors as per below mentioned procedure for counter offering.
- 6.4 If the number of Vendors eligible for counter offering exceeds the limit as prescribed in distribution of load due to tie at particular ranking, then all eligible Vendors at that ranking shall be considered for counter offering.
- 6.5 Ordering on the successful bidder/s is/are proposed depending on the monthly spare capacity, pending orders of BHEL with vendor at the time of loading, quality and delivery performance of the vendor for each Schedule.

7.0 Counter offering process:

- 7.1 Post price bid opening, if the rates quoted by the lowest bidder is not acceptable to BHEL, then Lowest Bidder will be called for price negotiation process.
- 7.2 BHEL reserves the right to distribute the work to one or more vendors. As the quantum to be completed is high and delivery requirements are concurrent for various Projects, BHEL shall

counter offer the finalised L1 Rates (on Landed Cost basis), to all other eligible, quoted vendors as per tender ranking.

- 7.3 Based on acceptance of counter offered L1 by Vendor, a Contract will be entered between Vendor and BHEL.
- 7.4 A Contract shall be entered into with L1 Vendors and the other eligible Vendors who have accepted the counter offered L1 rate of respective RSs. **The contract thus signed shall be valid for ordering up to a period of 6 months from the date of finalisation of tender.** However, validity of the contract is subject to further extension with mutual consent of Vendors.
- 7.5 Delivery dates in the PO to be released will be decided by BHEL based on customer Contract requirement.
- 7.6 BHEL also reserve the right to re-float or cancel the entire enquiry proceedings partly or fully in case the negotiated rates are not within BHEL's estimation.
- 7.7 Performance monitoring of the supplier will be carried out periodically. This will be one of the main criteria for ordering.

8.0 Eligible bidders for Counter offer

Number of Vendors to be considered for Counter offering process shall depend on the number of Vendors quoted. 10% of the top higher ranked vendors will not be considered for counter offer.

9.0 Load Distribution:

- 9.1 Load distribution shall depend on the number of counter offer accepted vendors.
- 9.2 L1 Vendor shall be loaded continuously subject to their capacity, meeting BHEL delivery requirement, quality performance and load available with BHEL. Balance load in each rate schedule will be distributed among Vendors accepting the counter offered rate based on their tender ranking subject to their capacity, performance, delivery and quality performance.
- 9.3 In case of new Vendors, loading will depend on tender ranking, capacity mentioned in [Annexure J](#), and assessment by BHEL Ranipet.
- 9.4 Monthly capacity has to be filled by the vendor as per [Annexure-J](#), to enable BHEL for loading of appropriate quantity.

PURCHASE ORDER CANCELLATION

- 9.5 Vendors will have to acknowledge the PO **within 7 days** from the date of release of PO, otherwise BHEL has the right to cancel the PO.
- 9.6 Cancellation of partial/full PO after PO delivery date - LD/Penalty will be recovered for the delayed period on entire PO value and further, loading will be stopped. Delayed period will be from the PO date to PO cancellation date. BHEL has the right to get the left items ordered elsewhere with notice to the vendor; at the risk and cost of the vendor and the additional expenditure / difference in Cost, if any, including consequential cost shall be recovered from the defaulted vendor.
- 9.7 BHEL has the right to divert/cancel the order if the vendor has not procured at least 50% of the quantity of raw materials within 60 days from PO date. Purchase order placed on steel mills and with proper payment voucher/proof will be considered for not cancelling the PO by BHEL. The submission of data by vendor for DB clearance by BHEL/QC shall be the proof of procurement. This is to avoid delay in project schedule due to delay in raw material procurement by vendors. In case the vendor fails to procure at least 50% of the quantity of raw materials within 60 days from PO date, further loading will be suspended.

9.8 If a Vendor rejects a PO/does not respond for PO acceptance (within seven days) consecutively three times or more, then Vendor will not be eligible loading in all the rate schedules.

10.0 QUALITY / TECHNICAL REQUIREMENTS:

10.1 Supply of the components should strictly conform to dimensions and tolerances indicated in the Drawings, Quality Plan. Vendors must ensure that dimensional deviations, if any, are recorded properly in the Dimension Record books and the same shall be made available to BHEL Officials or their authorized agencies. All the Quality records are to be uploaded in B2B portal. Any correction or revisions as advised by BHEL at post PO stages, shall be carried out by the vendor, based on the revised drawings or interim inspection from BHEL extra cost implications if any shall be informed to BHEL before carrying out the job.

10.2 Welding to be carried out by Qualified Welder and as per BHEL Approved Welding Procedure Specification. The welder qualification and welding procedure (as per relevant SIP) shall have to be done by QC / BHEL or by their authorized appointed agency. The cost of any approval on this account is in the scope of vendor.

10.3 Only the right kind of electrodes shall be used as called for in the Drawings.

10.4 Any other work to be carried out other than the requirements of Drawings / QWIs shall have the prior approval of BHEL.

10.5 Adequate facilities like welding equipment's, baking oven, handling facilities and measuring instruments duly calibrated as called for by us must be available. All the above equipment's must be under working condition and the same is to be made available for verification by BHEL Officials or their authorized agents.

10.6 The instruments / gauges are to be calibrated at BHEL Lab (chargeable basis as per applicable rates) or any NABL, approved Lab periodically as follows:

- Sl. No. Type Periodicity
- Measuring Instruments / Gauges - One Year
- Limit Gauges (E.g. Plug / Ring) - One Year
- Temperature, Pressure Gauges - 6 Months
- Measuring Steel Tapes – One Time

10.7 Calibration status shall be displayed at the Vendor's Works in a conspicuous location.

11.0 PROGRESS REPORT:

11.1 The vendor shall mail their completion plan and progress report from time to time as and when required by BHEL.

11.2 The submission, receipt and acceptance of such reports shall not prejudice the rights of BHEL, under the contract nor shall operate as estoppels against BHEL, merely by reason of the fact that they have not taken notice of or objected to any information contained in such reports. Action as deemed fit would be taken if the progress of work is not satisfactory.

12.0 MSE PREFERENCE & DOCUMENTS:

12.1 MSE suppliers can avail the intended benefits only if they submit along with offer, attested photocopies of either (i) EM II certificate having deemed validity (Five years from the date of issue of acknowledgement in EM –II) OR valid NSIC certificate or EM II certificate where the deemed validity of EM II is over along with (ii) CA certificate or Udyog Aadhar Memorandum (UAM) along with CA certificate (Format enclosed as per Annexure C applicable for the year, certifying quantum of investment in plant and machinery within the permissible limit as per the act for relevant

status (Micro or small) where the deemed validity of EM II is over. Date to be reckoned for determining the deemed validity will be the last date of technical bid submission. Non submission of such documents will lead to consideration of their bids at par with other Non MSE bidders and MSE status of such suppliers shall be shifted to Non MSE supplier till the supplier submits these documents.

13.0 PAYMENT TERMS:

- 13.1** The weights in Group Manufacturing Specification (GMS) shall be the basis for calculating the total requirement of raw materials for fabrication. However, vendor shall correlate all the drawings & GMS and take into consideration a suitable process allowance over and above this, for procurement of raw materials. For the purpose of billing as well as transport, the weight of GMS shall be the basis. Changes in the weight due to material substitution will be carried out by temporary DCN & GMS / PO will not be revised on account of this. However, weight changes due to design change shall be compensated by PO amendment, based on vendor request.
- 13.2** 100% Payment shall be made through electronic mode by EFT/RTGS within 30 days from the date of acknowledgment of LR by BHEL Ranipet subject to submission of bill along with site acknowledgement / acknowledgement requisite documents in original including Performance Bank Guarantee of 2.5% of the PO value.
- 13.3** In case of submission of bills after 15 days from the site acknowledgement or Ranipet shipping hand over, then 100% Payment shall be made within 25 days from the bill registration date.
- 13.4** Billing shall be made for complete PO Sl. No. (i.e. one Complete DU), and Bills for partial despatches of PO Sl. No. (DU) will not be entertained.
- 13.5** Vendor should ensure that the following documents are submitted for bill processing to avoid any delay in processing of payment.

✓ OVM –

- a. Online Invoice – duly signed by vendor with seal
 - b. Online Invoice Annexures - duly signed by vendor with seal
 - c. GST Invoice – Original copy for RECEIPT - In vendor letter head (Values to be checked with B2B tax invoice template) and a copy of the GST invoice should be attached.
 - d. Original IRs – with relevant painting/SB remarks and ODC details (if applicable) - duly signed by BHEL QC inspector and vendor with seal
 - e. Original DCs – Sign and seal of vendor
 - f. Original LR – Quantity despatched as loose/Crates acknowledged by site official along with sign and name seal on the back side of LR
 - g. Performance Bank Guarantee @ 2.5% of the PO value.
- 13.6** The concessions/ subsidies as applicable to MSE vendors as per Govt. guidelines shall be Extended to eligible MSE vendors subject to submission of valid documents.

14.0 PERFORMANCE BANK GUARANTEE (PBG):

- 14.1** All successful bidders have to submit the Bank Guarantee before signing of contract. Bank Guarantee has to be stamped in accordance with stamp act.
- 14.2** Purchase Order will be released only after signing of the contract and receipt of PBG.
- 14.3** The vendor shall warrant that the supplied products comply fully with the drawings and other technical requirements for a warranty period of 18 Months, from date of last despatch . If the

supplies are found defective owing to faulty raw material / workmanship / incomplete work, within a period of eighteen months from the date of despatch, the vendor shall make good of it / replace the same free of cost.

14.4 To cover such eventualities, the vendor shall furnish Performance Bank Guarantee (PBG) @ 2.5 % of the PO value.

✓ Validity of PBG: From [the date of submission of PBG] till [date of last dispatch + 18 months (warranty period)] + 90 days (Claim period)

14.5 If the vendor does not complete the re-work at Ranipet in time, then the re-work shall be completed by BHEL. Cost of the re-work will be deducted/recovered from PBG or any of the amount due to vendors or from both.

15.0 LIQUIDATED DAMAGES / PENALTY & RISK PURCHASE:

15.1 Where the vendor supplies the finished goods beyond the specified delivery period, liquidated damages at the rate of 0.5% of the total value of the Purchase order for each week or part thereof will be levied subject to a maximum of 10% of the total purchase order value (max 11.8% of PO value i.e 10% plus applicable GST of 18%) without prejudice to any other relief or compensation to BHEL, under any other condition of the contract and applicable laws.

15.2 GST at prevailing rate is applicable on LD amount. Credit note will be issued by the vendor indicating the respective supply invoice.

15.3 Delivery Extensions shall not be entertained for normal cases unless there are delays which have justifiable reasons not attributable to Vendor. In case of amendment in PO, LD will be calculated as per the amended PO.

15.4 Invoices received without any request for delivery extension and or without proper justification, LD will be automatically deducted.

15.5 In such cases where the reasons for delay (before PO delivery date) are attributable to BHEL, the vendors are expected to send a request for delivery extension (within PO delivery date) along with supporting documents & justification, indicating the number of days/ date till which extension is required. (Beyond this date, extension shall not be made). Also Vendor has to opt 'YES' for delivery extension required in B2B. In case of no response it will assumed that delivery extension is not required.

15.6 Delivery extension if any, should be obtained before Invoice creation in B2B. Once bill has been submitted & posted, deferred payment amount (max 11.8 % of PO value) will be withheld until full PO completion & delivery extension completion. Any financial implication on account of delayed delivery shall be borne by the Vendor.

15.7 In case of any revision/ amendment of PO, the LD shall be linked to the amended/revised PO value.

15.8 The defaulted vendor shall be liable for any loss, which BHEL may sustain by reason of such risk purchases in addition to liquidated damages as mentioned above.

15.9 In case of LD recovery, the applicable GST shall also be recovered from the suppliers.

16.0 Action and Compensation in case of Bad Workmanship:

16.1 If any work has been executed with unsound, imperfect or bad workmanship or with materials of inferior quality, the fabricator shall on demand in writing from BHEL specifying the work, materials/articles complained of, notwithstanding that the same may have been passed, certified

and paid for, forthwith, rectify the work so specified in whole or in part as the case may require, at their own cost and in the event of his failure to do so within reasonable period, BHEL will rectify or remove and re-execute the work at the risk and expense of the vendor.

16.2 BHEL will have general supervision and direction over the work. BHEL has the authority to stop the work, whenever such stoppage may be necessary to ensure the proper execution of the contract.

16.3 BHEL shall also have the authority to reject all the work, which does not conform to the specification, to direct the application of forces to any portion of the work as, in their judgement is required, and order the force increased or diminished and to decide on matters which arise in the execution of the work.

16.4 BHEL reserves the right to suspend the work or part thereof at any time and no claim whatsoever on this account will be entertained. In case of any dispute, the fabricator may appeal to BHEL whose decision shall be final and binding.

17.0 SUBLETTING:

17.1 The vendor shall not sublet or assign this work or any part thereof without the prior written permission of BHEL. In the event of the vendor subletting or assigning this work or any part thereof without such permission, BHEL shall be entitled to cancel the Order and execute the same elsewhere at the risk and cost of the vendor and the vendor shall be liable for any loss or damage which BHEL may sustain in consequence of such event. Further BHEL has the right to cancel the PO's placed on such vendor/s and suspend the business dealings with such vendor/s as per the policy of BHEL. The vendors who are falling under highest bidder category shall not be considered.

18.0 VENDOR PERFORMANCE RATING:

18.1 Quality, right at the first time and delivery in time are the essence of the contract.

18.2 Based on the site feedback on the quality of the finished goods received, delivery performance and service rendered; a General Feedback on the Performance will be sent to vendors or hosted in B2B system. Vendors are required to take note of the deviations enumerated in this and improve their performance in subsequent despatches. Vendors, whose performance is poor continuously, are liable to be delisted and no orders shall be placed on them.

19.0 CONFIDENTIALITY OBLIGATION:

19.1 All the documents of BHEL (inclusive of Drawings, GMS and Standards) made available to the vendor should be kept in strict confidence and under no circumstance be made available to others or allow others to make use of them. Such documents should be returned to BHEL after completion of the work ordered and also as and when BHEL demands.

19.2 The above **CONFIDENTIALITY** **CLAUSE** is binding on the employees of the vendors also. Any contravention will be viewed very seriously and may include cancelling the contract or legal action on the vendor.

20.0 RISK PURCHASE /PENALTIES /ABNORMALLY LOW BID:

20.1 In case any Vendor does not execute the orders within the PO delivery or mutually agreed extended delivery date, BHEL may cancel the PO partially or completely. Completely or partial cancelled quantum will be executed through other eligible Vendors at the Risk and cost of the Vendor, who has failed to execute the purchase order. Expenditure involved, if any will be recovered from the bills or from any amount due to the Vendor, who has failed to execute the purchase order/contract.

- 20.2** Vendors are cautioned that, withdrawal after price bid opening or after contract signing or PO/LOI acceptance will be construed as tampering with BHEL's tender process. Suitable action for suspension of further business with the vendor may be taken as per BHEL corporate procedures.
- 20.3** Vendors pending payments shall be withheld and/or their BG may be invoked to cover the liabilities of BHEL towards risk purchase, if any.
- 20.4** The supplier shall be liable for any loss which BHEL may sustain by reason of such risk purchases in addition to liquidated damages as detailed under LD clause.
- 20.5** It may please be noted that guidelines/rules in respect of suspension of business dealings', 'Vendor evaluation format' etc may undergo change from time to time and the latest one shall be followed.
- 20.6** Abridged version of extant 'Guidelines for suspension of business dealings with suppliers/ contractors' has now been uploaded on www.bhel.com on "supplier registration page" at the following link: http://www.bhel.com/vender_registration/vender.php (Guidelines for suspension of business dealings with suppliers/ contractors).

21.0 B2B COMMUNICATION:

- 21.1** BHEL will establish communication with our Vendors through **B2B**. Most of the mass communications are sent through B2B and hence vendors are advised to access our web regularly.
- 21.2** Vendors are required to have Internet connectivity.
- 21.3** Vendors are required to access our web site on a regular basis.
- 21.4** Before commencing the job, latest GMS, Quality Plan applicable to the project or PO is to be ascertained, through the B2B portal. All the Quality records are to be uploaded in B2B portal.

22.0 OTHER CONDITIONS:

- 22.1** Partnership firms should have the latest Form-A (Rule 5) Declaration issued by Registrar of Firms and the copy of the same should be produced at the time of signing of the Contract.
- 22.2** **BHEL Ranipet** never enters in to any agreement or never gives any undertaking or Power of Attorney to any Bank/s in relation to the Bill discounting facilities availed/ to be availed by its various vendors. BHEL Ranipet has no obligation what so ever, directly or indirectly, to any Bank/s in relation to the Bills received by BHEL Ranipet excepting payment of the same as authorised by the vendors at the time of entering into the contract, subject to the conditions for honouring the Bills provided in the contract and BHEL does not recognise any charge on the proceeds of the Bill. If any Bank initiates any legal action against fabricator/s in relation such facilities and includes BHEL a party in the said dispute, all legal expenses, cost and any other losses thereof shall be recovered from the concerned vendors.
- 22.3** All the Statutory Obligations such as ESI, PF, Labour Acts, Factories Act, GST, etc. will have to be taken care of by the vendor. BHEL will have no liability on them. Notwithstanding the above, if any demand notice is served by the concerned Statutory Authorities for recovery of any of their dues on BHEL, the same would be paid with notice to the vendor and recovered from any pending / future bills.
- 22.4** All Safety Precautions and use of Safety Equipment's are to be followed while carrying out the fabrication and Despatch of the same. The vendor must have proper tools and handling equipment's. There should always be a responsible person available to oversee the operation and compliance of safety regulation etc. If any non-compliance with respect to proper safety conditions/requirements,

BHEL may withhold visit/inspection, instruct stoppage of work till such time the desired safety requirements/conditions are met with.

- 22.5 Vendors are required to equip themselves with communication facilities like Telephone, internet and e-mail, etc. BHEL will have the right not to consider those vendors who do not equip themselves with these facilities.
- 22.6 The vendor shall be responsible for mismatch of components if any noticed at site during erection. Any rework shall be carried out by vendor at their cost and risk including transport, if necessary.
- 22.7 All clarifications pertaining to techno-commercial conditions of the tender shall be sought before submitting the price bid. After issuance of LOI, no claim for increase in rates will be entertained by BHEL.

For and on behalf of
AGM / Outsourcing
Boiler Auxiliaries Plant, Bharat Heavy Electricals Limited, Ranipet

SECTION -V

Eligibility Criteria and General Information for manufacturing of baskets with vendor material

	Manufacturing Facilities Available with Firm and other General Information (Details to be filled by the Vendor)	Vendor Reference code
General Information about Firm		
1	Name of Firm	
2	Place	
3	Office room with facilities like Computer, Printer, Internet access etc	
4	Bank Account number and Name of Bank	
5	Proprietor/Partnership/Limited company	
6	Name of Proprietor / Partners / Director with Age and Contact number	
7	Educational & Technical Qualifications of Proprietor /Partners	
8	Educational & Technical Qualifications of Supervisors	
9	Number of In-house Quality Inspectors, Manpower details with Educational Details	
10	Availability of qualified NDT personnel	
11	ISO 9001 certification	
12	GSTIN	
General Mandatory Facilities Required		
13	Distance form BHEL,Ranipet in KM - Within the radius of 450 KM	
14	Electrical Power availabililty (EB) in KW - minimum 20 KW required. Attach EB service card copy	
15	Indicate Land area - Minimum 0.5 acres in single location Own/Lease - Document (Title deed with encumbrance certificate) to be furnished(if lease, lease should be minimum for a period of 3 years on the date of Tender Opening)	
16	Availability of approach road	
17	Covered Area for working(Concrete/Asbestos/Metallic sheet) in Sq.ft - Minimum shed size shall be of Area 1000 Sq.ft	

SECTION -V

Eligibility Criteria and General Information for manufacturing of baskets with vendor material

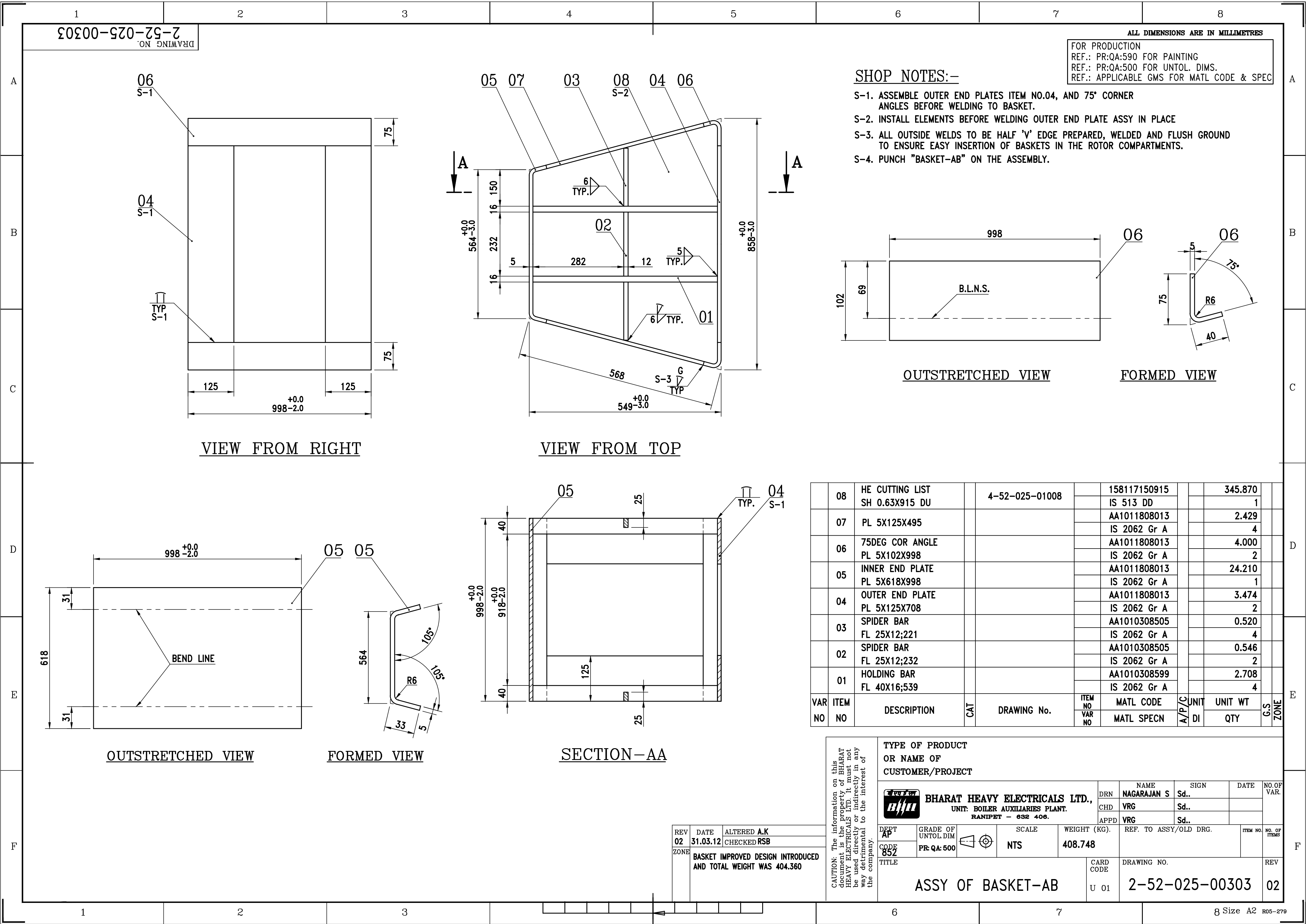
18	Compliance of Statutory requirements such as Insurance, ESI and PF facility for employees, Safety requirements, Non usage of Child Labour, License from Government Agency(Inspector of Factories)..etc	YES / NO
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Mandatory Fabrication Facilities Required

19	Welding Gen/Rect/transformer/CO2 Weld equipment	
20	Manual gas cutting set with blow pipe	
21	Electrode baking oven upto 300 O C	
22	Thermal flask	
23	Angular grinding machine	
24	Painting facility - Compressor with gun	
25	Crane to handle 10MT job either self owned or on hire basis	
26	Measuring instruments: Tape, vernier, Try square etc.	
27	Paint coating Thickness Measuring gauge	
28	Availability of Levelled / concrete platform for fabrication work.	
29	Shearing machine capacity 6 mm and above(Own / Tie up with any other vendor)	
30	Press brake / plate bending facility(6mmx2500 and above) (Own / Tie up with any other vendor)	

I/WE certify that the details furnished above is true and Correct

Signature of Vendor with Firm Seal

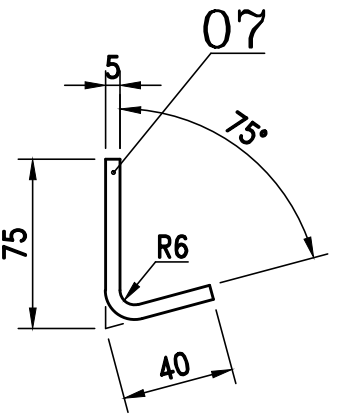
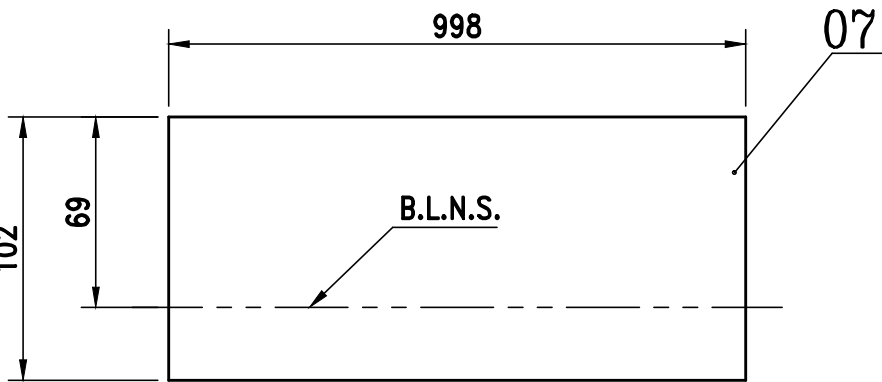


2-52-025-00304
DRAWING NO.

ALL DIMENSIONS ARE IN MILLIMETRES
FOR PRODUCTION
REF.: PR:QA:590 FOR PAINTING
REF.: PR:QA:500 FOR UNTOL. DIMS.
REF.: APPLICABLE GMS FOR MATL CODE & SPEC

SHOP NOTES:-

- S-1. ASSEMBLE OUTER END PLATES ITEM NO.02 AND 75° CORNER ANGLES BEFORE WELDING TO BASKET.
S-2. INSTALL ELEMENTS BEFORE WELDING OUTER END PLATE ASSY IN PLACE
S-3. ALL OUTSIDE WELDS TO BE HALF 'V' EDGE PREPARED, WELDED AND FLUSH GROUND TO ENSURE EASY INSERTION OF BASKETS IN THE ROTOR COMPARTMENTS.
S-4. PUNCH "BASKET-C" ON THE ASSEMBLY.



OUTSTRETCHED VIEW

FORMED VIEW

	09	HE CUTTING LIST SH 0.63X915 DU		4-52-025-01009		158117150915			465.735		
						IS 513 DD			1		
	08	PL 5X125X466				AA1011808013			2.286		
						IS 2062 Gr A			4		
	07	75DEG COR ANGLE PL 5X102X998				AA1011808013			4.000		
						IS 2062 Gr A			2		
	06	105DEG COR ANGLE PL 5X102X998				AA1011808013			4.000		
						IS 2062 Gr A			2		
	05	SPIDER BAR FL 25X12;259				AA1010308505			0.610		
						IS 2062 Gr A			4		
	04	SPIDER BAR FL 25X12;216				AA1010308505			0.509		
						IS 2062 Gr A			4		
	03	HOLDING BAR FL 40X16;511				AA1010308599			2.567		
						IS 2062 Gr A			6		
	02	OUTER END PLATE PL 5X125X997				AA1011808013			4.892		
						IS 2062 Gr A			2		
	01	INNER END PLATE PL 5X125X716				AA1011808013			3.513		
						IS 2062 Gr A			2		
VAR NO	ITEM NO	DESCRIPTION	CAT	DRAWING No.	ITEM NO VAR NO	MATL CODE MATL SPECN	A/P/C DI	UNIT QTY	UNIT WT	G.S	ZONE

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											
	DEPT AP		GRADE OF UNTOL DIM PR: QA: 500		SCALE NTS		WEIGHT (KG). 527.567		REF. TO ASSY/OLD DRG.		ITEM NO. NO. OF ITEMS	
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	ASSY OF BASKET-C											

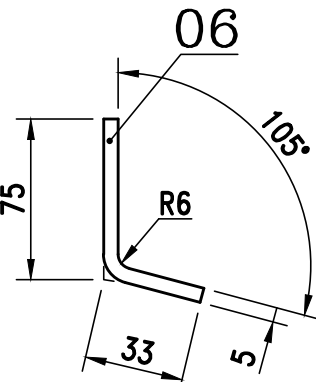
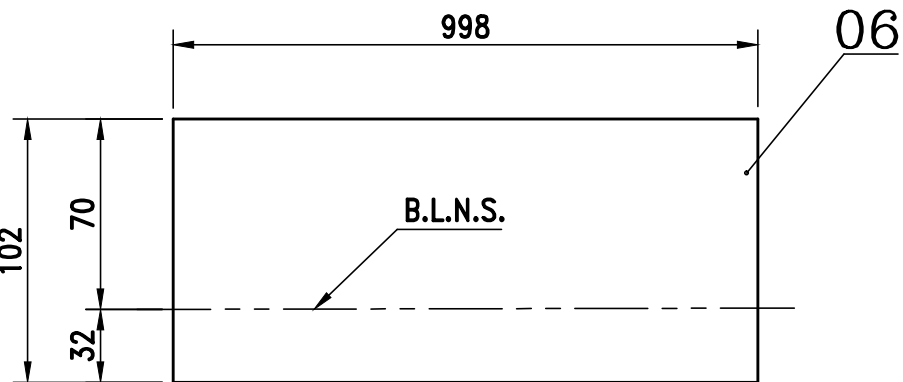
REV 02	DATE 31.03.12	ALTERED A.K CHECKED RSB
BASKET IMPROVED DESIGN INTRODUCED AND TOTAL WEIGHT WAS 521.420		

02

TYP.
NOTE-S1

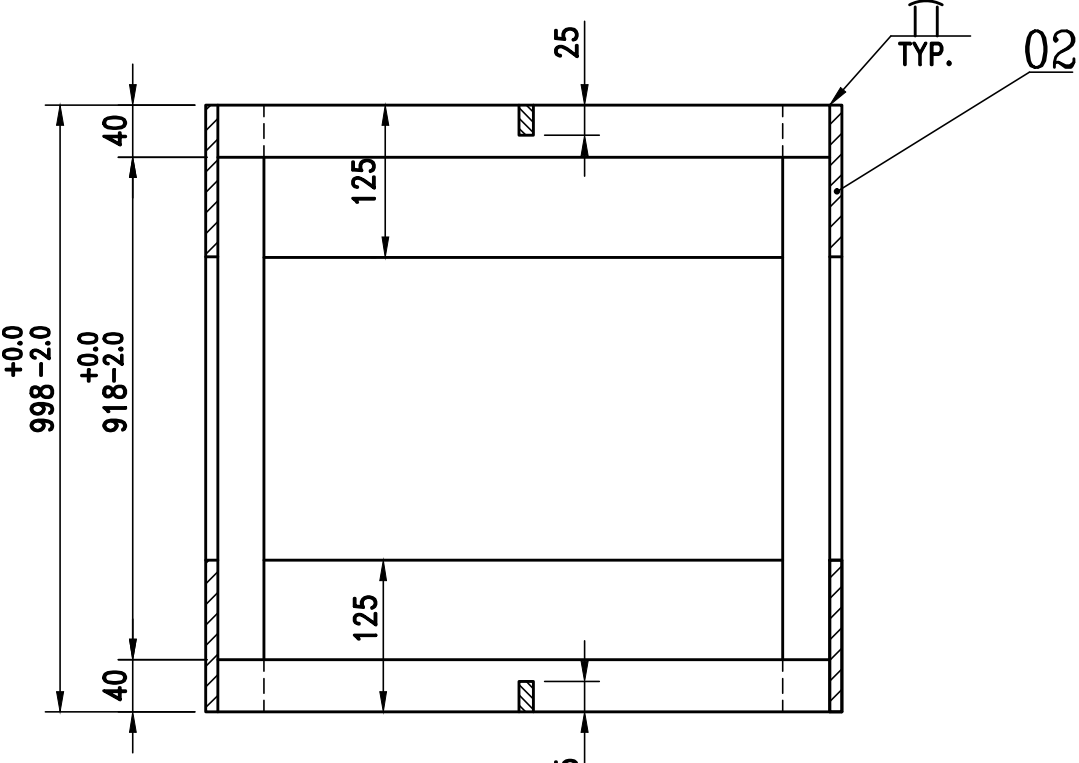
VIEW FROM RIGHT

VIEW FROM TOP



OUTSTRETCHED VIEW

FORMED VIEW

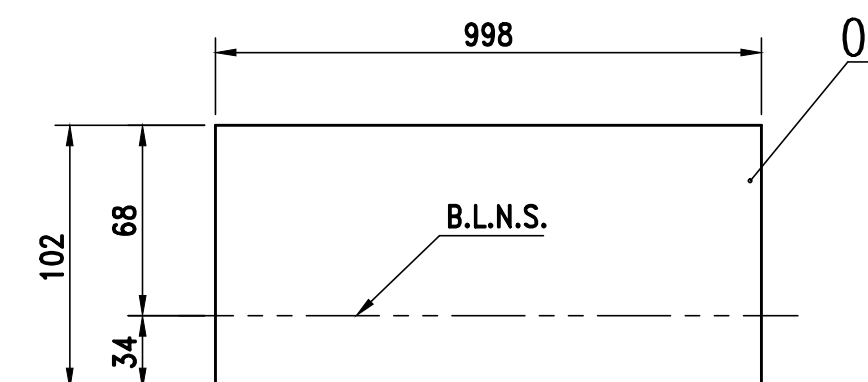


SECTION-AA

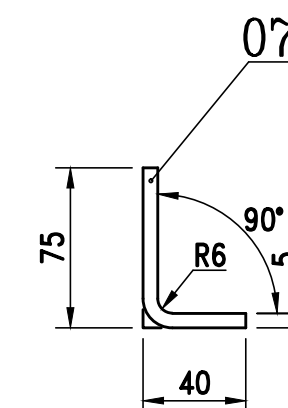
FOR PRODUCTION REF.: PR:QA:590 FOR PAINTING REF.: PR:QA:500 FOR UNTOL. DIMS. REF.: APPLICABLE GMS FOR MATL CODE & SPEC

SHOP NOTES:-

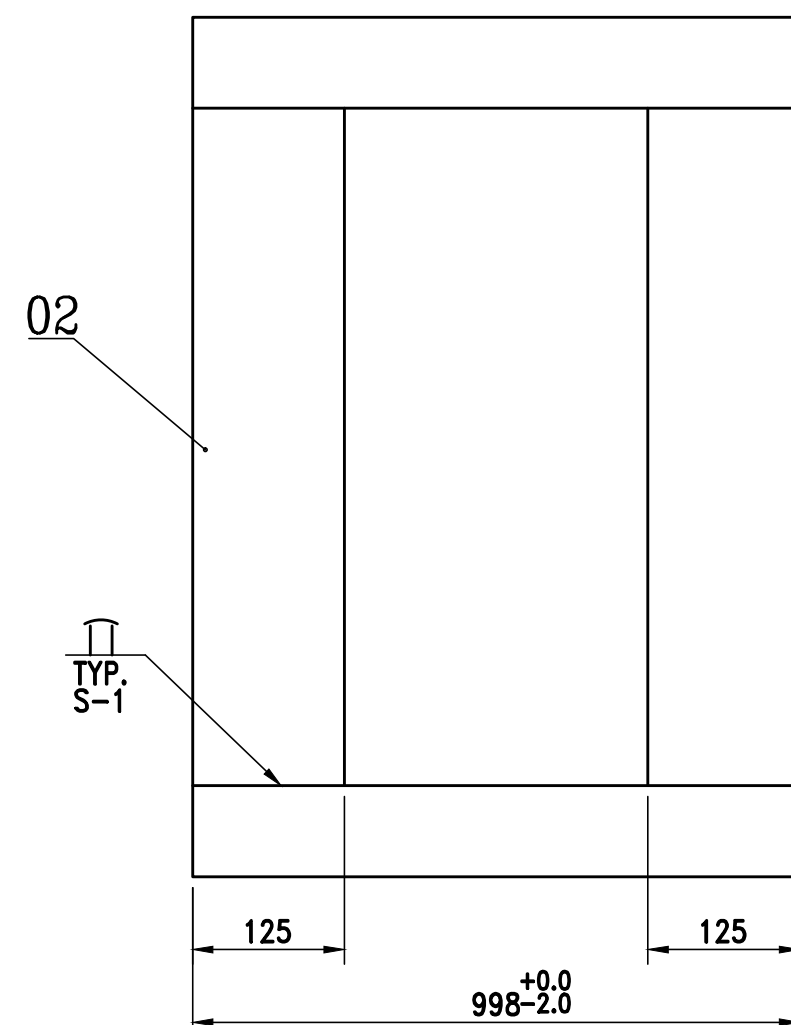
- S-1. ASSEMBLE OUTER END PLATES ITEM NO.02, 75° AND 90° CORNER ANGLES BEFORE WELDING TO BASKET.
- S-2. INSTALL ELEMENTS BEFORE WELDING OUTER END PLATE ASSY IN PLACE
- S-3. ALL OUTSIDE WELDS TO BE HALF 'V' EDGE PREPARED, WELDED AND FLUSH GROUND TO ENSURE EASY INSERTION OF BASKETS IN THE ROTOR COMPARTMENTS.
- S-4. PUNCH "BASKET-D" ON THE ASSEMBLY.



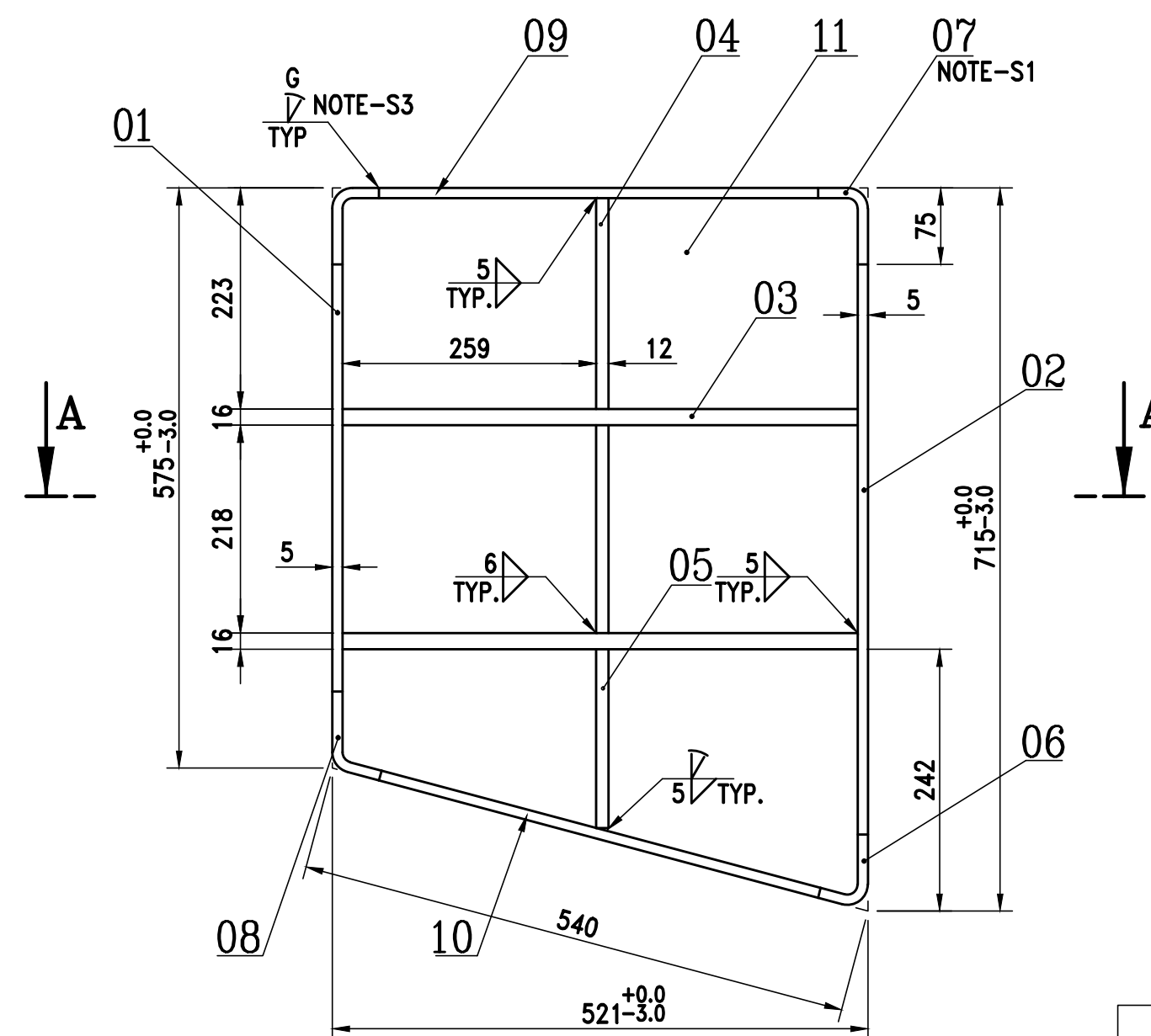
OUTSTRETCHED VIEW



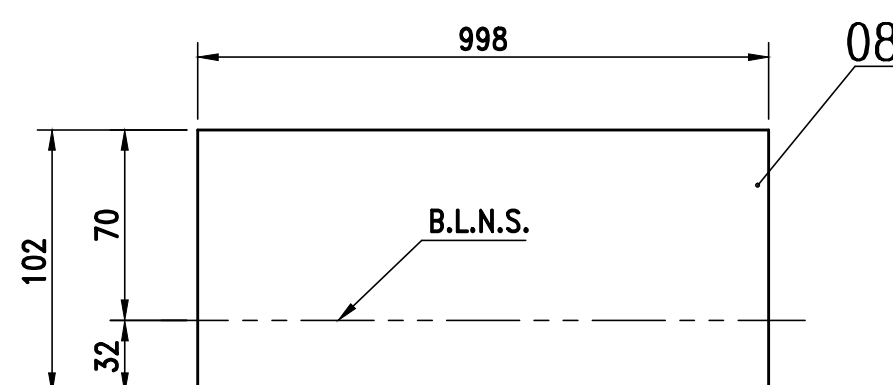
FORMED VIEW



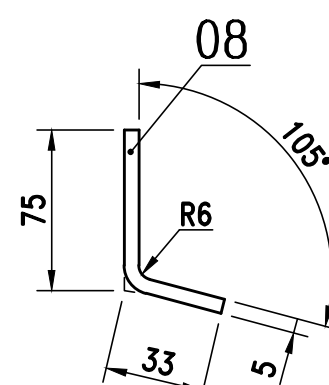
VIEW FROM RIGHT



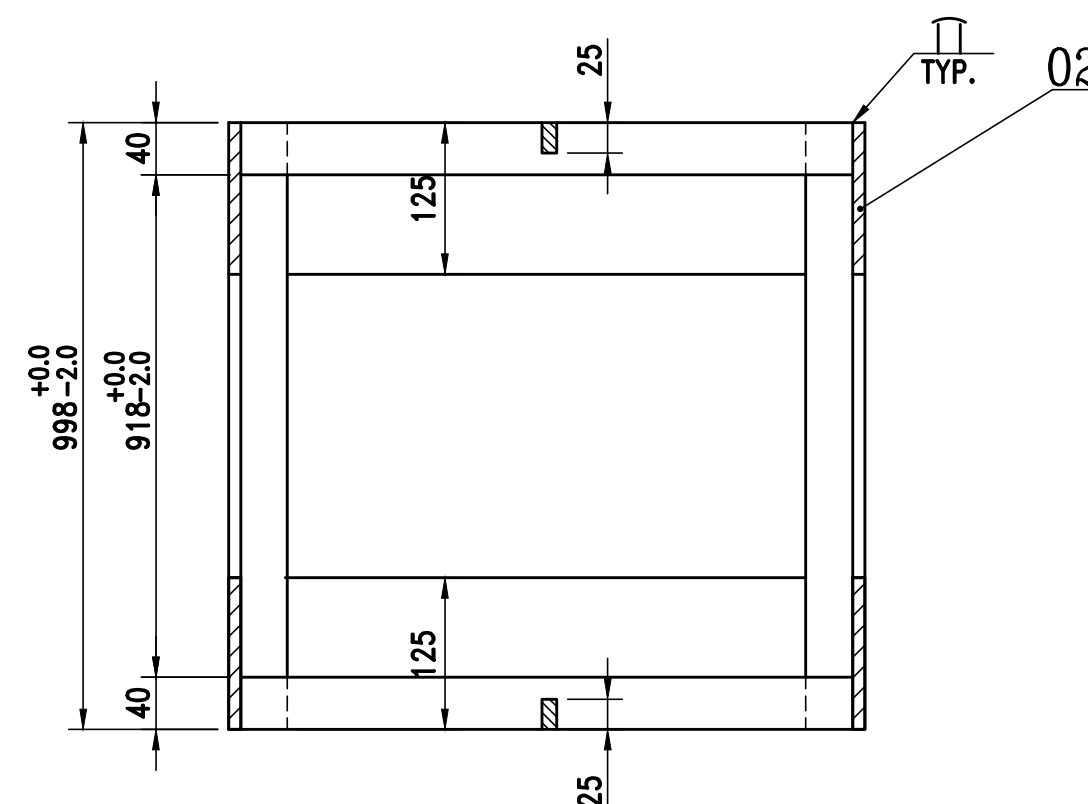
VIEW FROM TOP



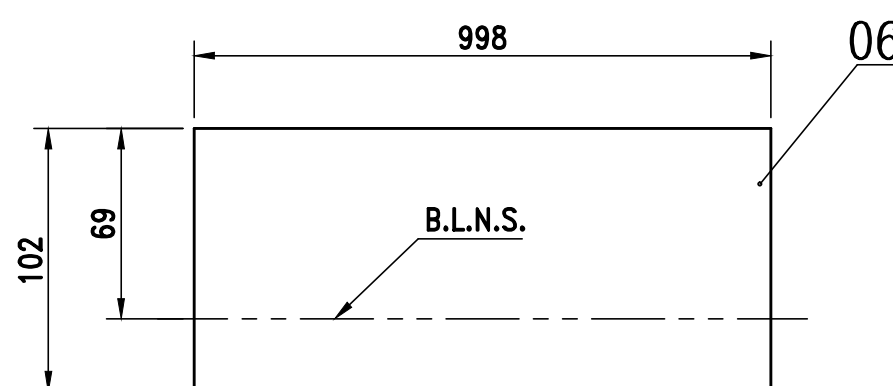
OUTSTRETCHED VIEW



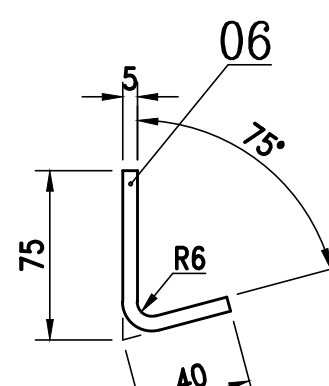
FORMED VIEW



SECTION-AA



OUTSTRETCHED VIEW



FORMED VIEW

	11	HE CUTTING LIST SH 0.63X915 DU		4-52-025-01010		158117150915 IS 513 DD			297.375 1	
	10	PL 5X125X467				AA1011808013 IS 2062 Gr A			2.291 2	
	09	PL 5X125X441				AA1011808013 IS 2062 Gr A			2.164 2	
	08	105DEG COR ANG PL 5X102X998				AA1011808013 IS 2062 Gr A			4.000 1	
	07	90DEG COR ANGL PL 5X102X998				AA1011808013 IS 2062 Gr A			4.000 2	
	06	75DEG COR ANGLE PL 5X102X998				AA1011808013 IS 2062 Gr A			4.000 1	
	05	SPIDER BAR FL 25X12;168				AA1010308505 IS 2062 Gr A			0.396 2	
	04	SPIDER BAR FL 25X12;218				AA1010308505 IS 2062 Gr A			0.513 4	
	03	HOLDING BAR FL 40X16;511				AA1010308599 IS 2062 Gr A			2.567 4	
	02	OUTER END PLATE PL 5X125X565				AA1011808013 IS 2062 Gr A			2.878 2	
	01	INNER END PLATE PL 5X125X425				AA1011808013 IS 2062 Gr A			2.169 2	
VAR NO	ITEM NO	DESCRIPTION	CAT	DRAWING No.	ITEM NO VAR NO	MATL CODE MATL SPECN	A/P/C	UNIT DI	UNIT WT QTY	FOUR

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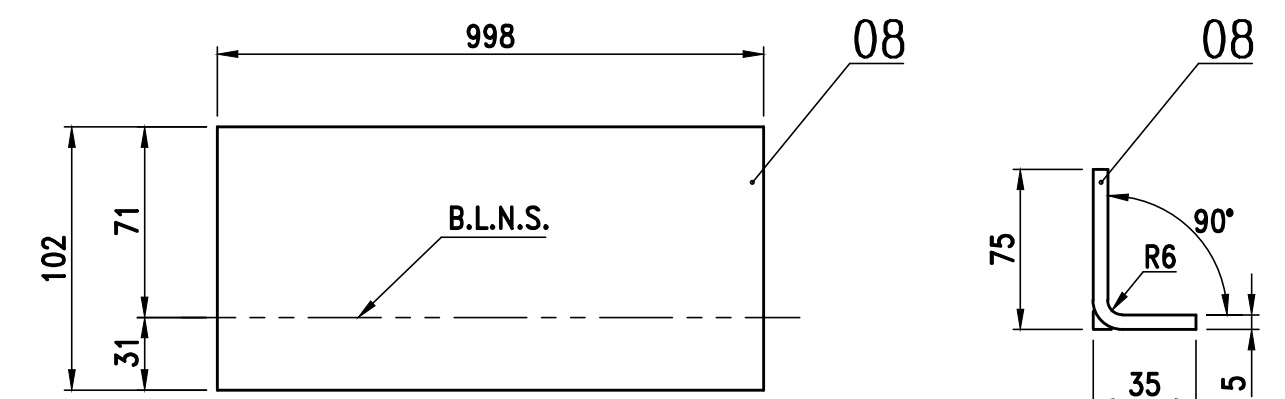
TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT	
---	--

 BHARAT HEAVY ELECTRICALS LTD., UNIT: BOILER AUXILIARIES PLANT. RANIPET - 632 406.		DRN	NAME NAGARAJAN S	SIGN	DATE	NO. OF VAL	
		CHD	VRG	Sd..			
		APPD	VRG	Sd..			
DEPT AP	GRADE OF UNTOL DIM		SCALE	WEIGHT (KG).	REF. TO ASSY/OLD DRG.	ITEM NO.	NO. OF ITEM
CODE 852	PR: QA: 500		NTS	345.491			
TITLE				CARD CODE	DRAWING NO.		REV
ASSY OF BASKET-D				U 01	2-52-025-00305		02

FOR PRODUCTION REF.: PR:QA:590 FOR PAINTING REF.: PR:QA:500 FOR UNTOL. DIMS. REF.: APPLICABLE GMS FOR MATL CODE & SPEC

SHOP NOTES:-

- S-1. ASSEMBLE OUTER END PLATES ITEM NO.02, 75° AND 90° CORNER ANGLES BEFORE WELDING TO BASKET.
- S-2. INSTALL ELEMENTS BEFORE WELDING OUTER END PLATE ASSY IN PLACE
- S-3. ALL OUTSIDE WELDS TO BE HALF 'V' EDGE PREPARED, WELDED AND FLUSH GROUND TO ENSURE EASY INSERTION OF BASKETS IN THE ROTOR COMPARTMENTS.
- S-4. PUNCH "BASKET-E" ON THE ASSEMBLY.



OUTSTRETCHED VIEW

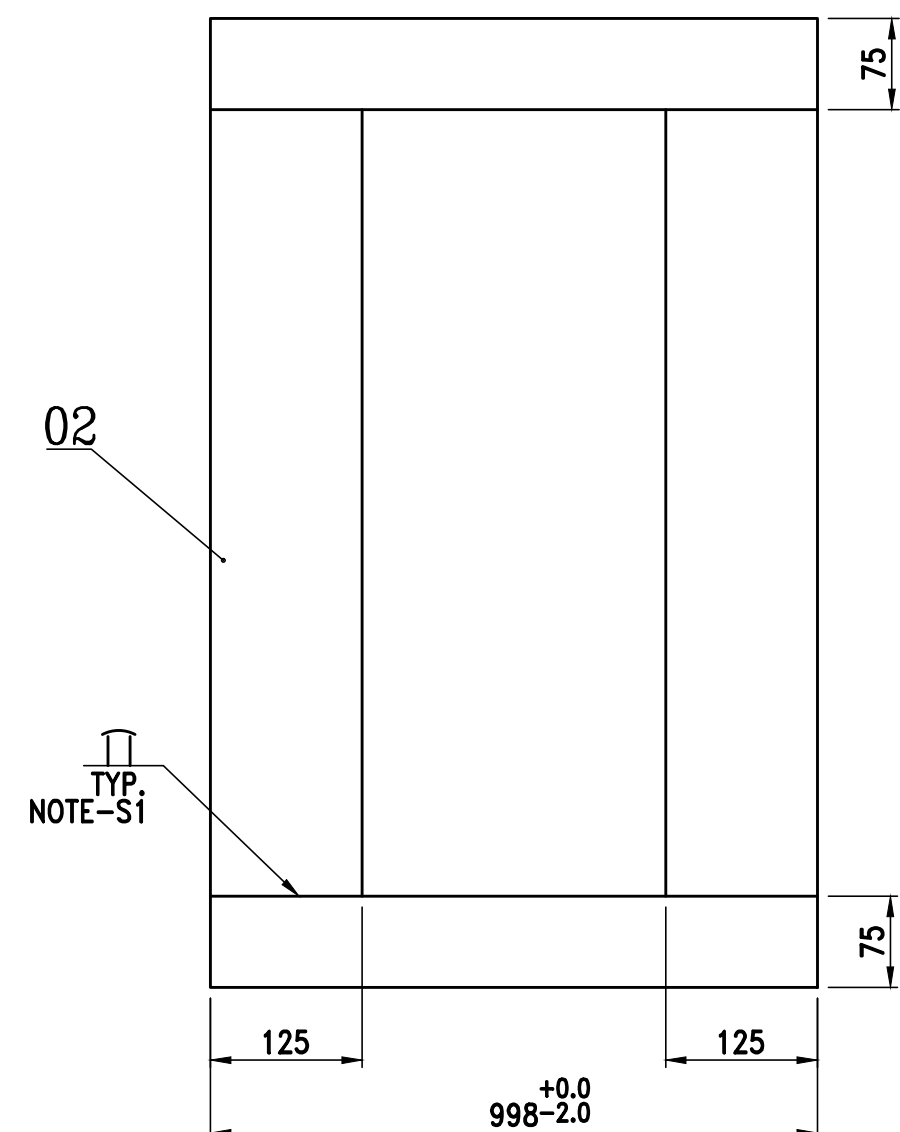
FORMED VIEW

	11	HE CUTTING LIST SH 0.63X915 DU		4-52-025-01011		158117150915			364.170	
						IS 513 DD			1	
	10	PL 5X125X469				AA1011808013			2.300	
						IS 2062 GR A			2	
	09	PL 5X125X450				AA1011808013			2.210	
						IS 2062 GR A			2	
	08	90DEG COR ANGLE PL 5X102X998				AA1011808013			4.000	
						IS 2062 GR A			2	
	07	75DEG COR ANGLE PL 5X97X998				AA1011808013			3.800	
						IS 2062 GR A			1	
	06	105DEG COR ANGLE PL 5X104X998				AA1011808013			4.070	
						IS 2062 GR A			1	
	05	SPIDER BAR FL 25X12;217				AA1010308505			0.510	
						IS 2062 GR A			2	
	04	SPIDER BAR FL 25X12;265				AA1010308505			0.624	
						IS 2062 GR A			4	
	03	HOLDING BAR FL 40X16;511				AA1010308599			2.570	
						IS 2062 GR A			4	
	02	OUTER END PLATE PL 5X125X709				AA1011808013			3.480	
						IS 2062 GR A			2	
	01	INNER END PLATE PL 5X125X569				AA1011808013			2.790	
						IS 2062 GR A			2	
VAR NO	ITEM NO	DESCRIPTION	CAT	DRAWING No.	ITEM NO VAR NO	MATL CODE	A/P/C	UNIT DI	UNIT WT QTY	GS WT
						MATL SPECN				

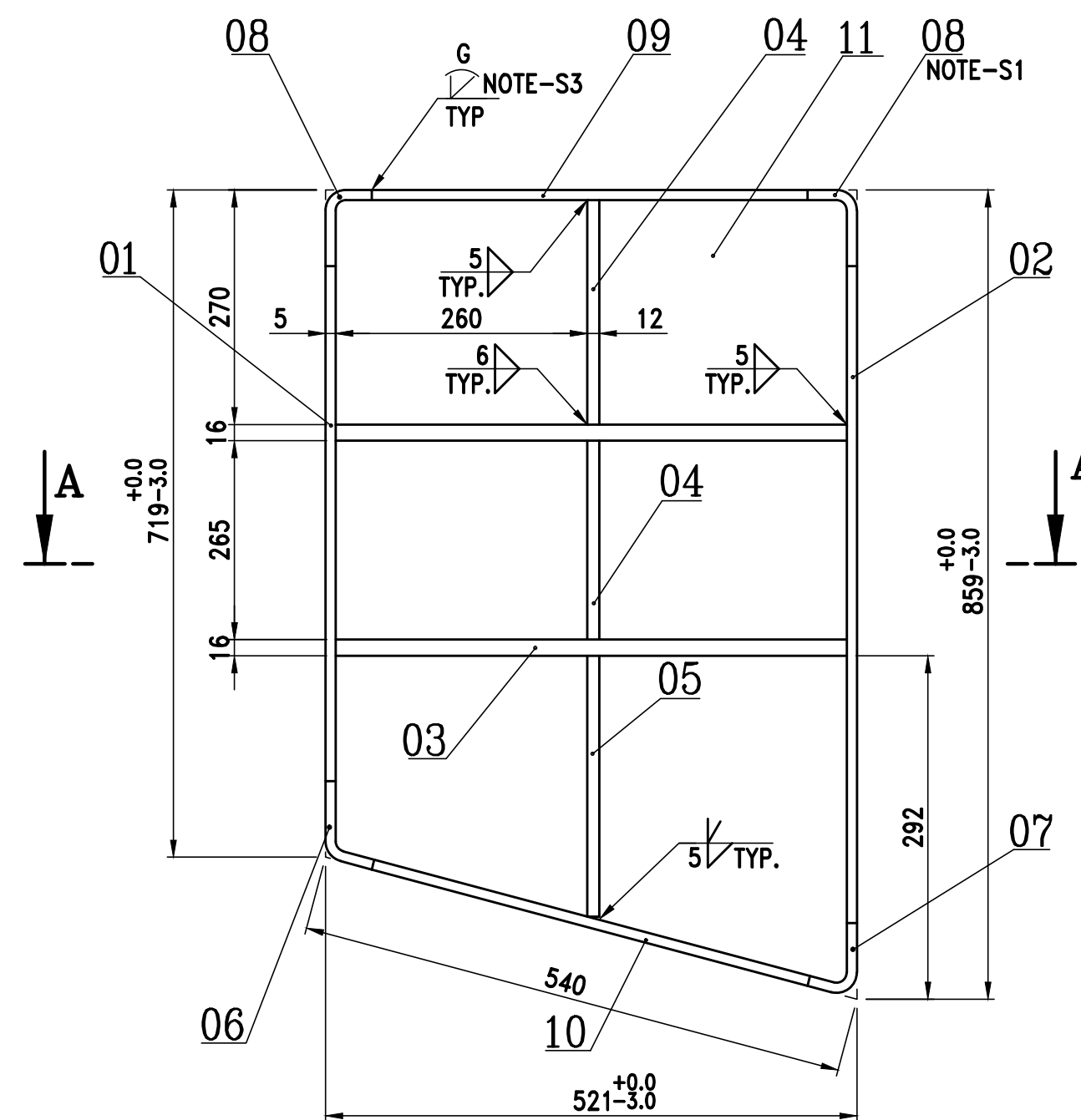
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TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT	
---	--

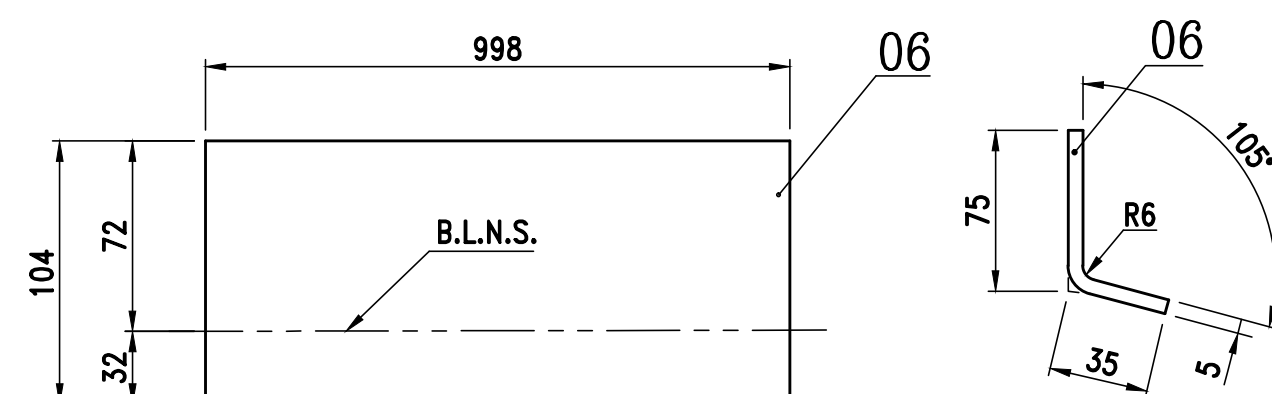
 BHARAT HEAVY ELECTRICALS LTD., UNIT: BOILER AUXILIARIES PLANT. RANIPET - 632 406.					DRN	NAME NAGARAJAN S	SIGN Sd..	DATE 25.06.82	NO. OF VAL	
					CHD	VRG	Sd..			
					APPD	VRG	Sd..			
DEPT AP	GRADE OF UNTOL DIM PR: QA: 500		SCALE NTS	WEIGHT (KG). 415.396	REF. TO ASSY/OLD DRG.				ITEM NO.	NO. OF ITEM
CODE 852	TITLE ASSY OF BASKET-E				CARD CODE U 01	DRAWING NO. 2-52-025-00306				REV 02



VIEW FROM RIGHT

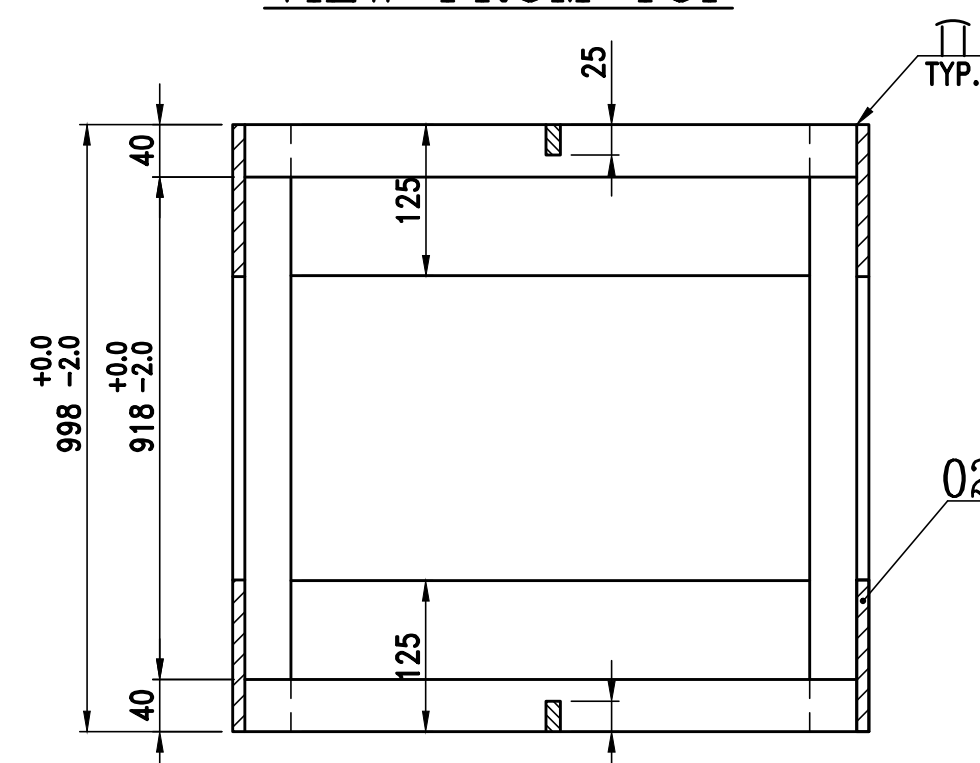


VIEW FROM TOP

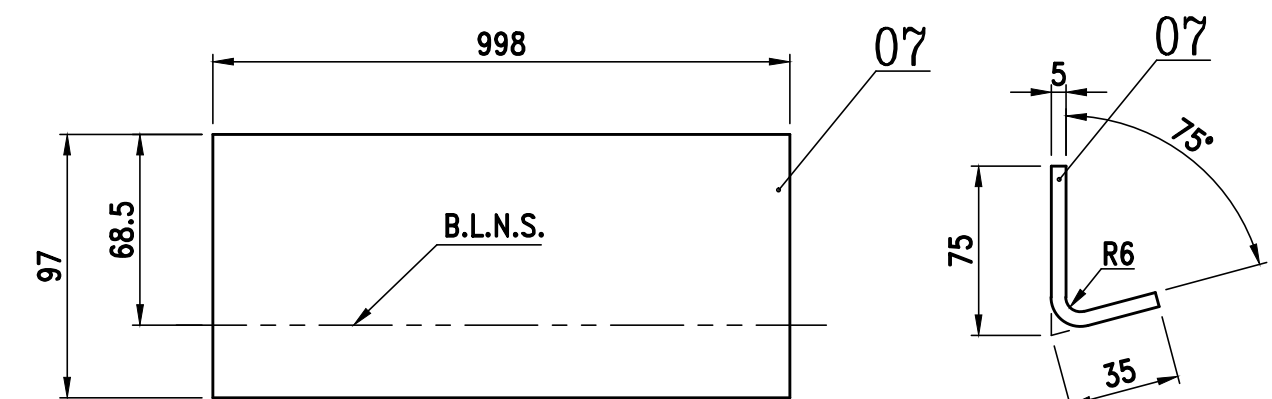


OUTSTRETCHED VIEW

FORMED VIEW



SECTION-AA



OUTSTRETCHED VIEW

FORMED VIEW

REV 02	DATE 31.03.12	ALTERED A.K CHECKED RSB
ZONE	BASKET IMPROVED DESIGN INTRODUCED AND TOTAL WEIGHT WAS 411.300	

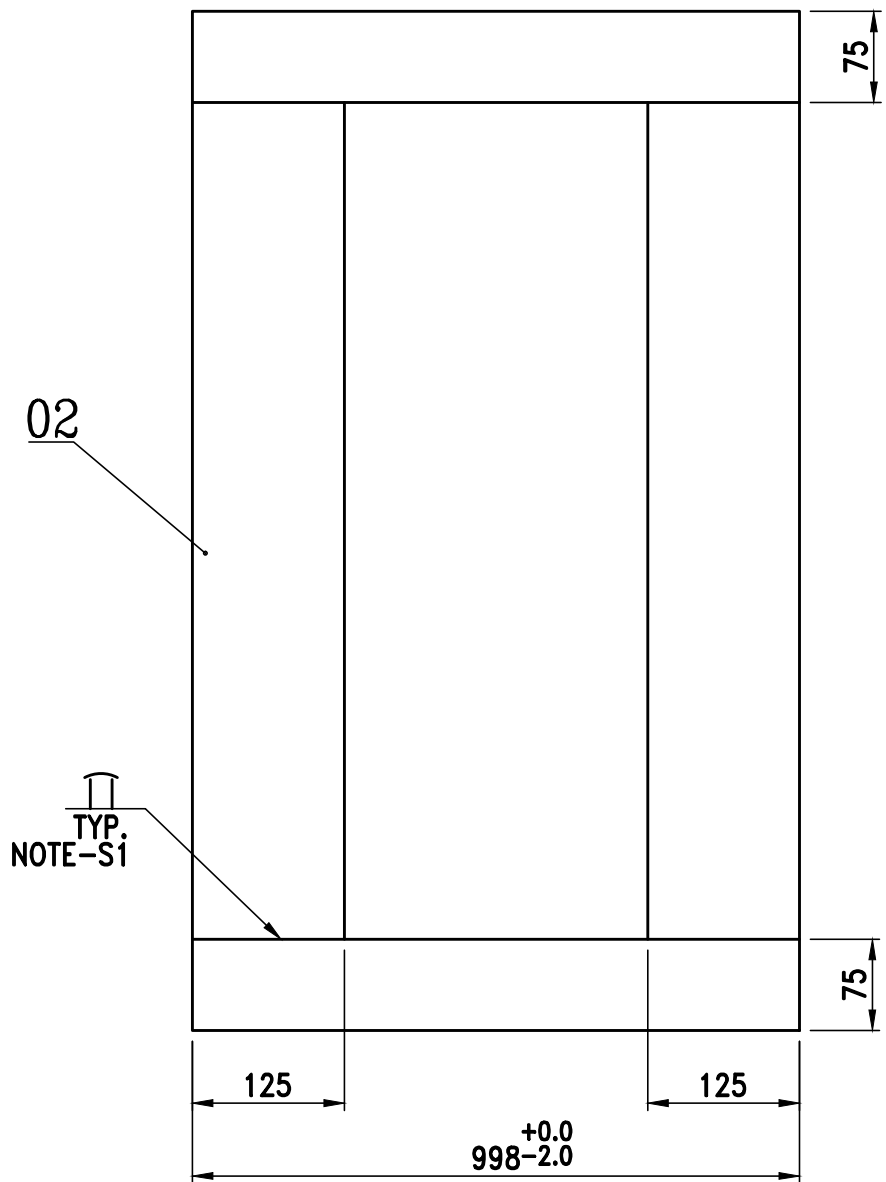
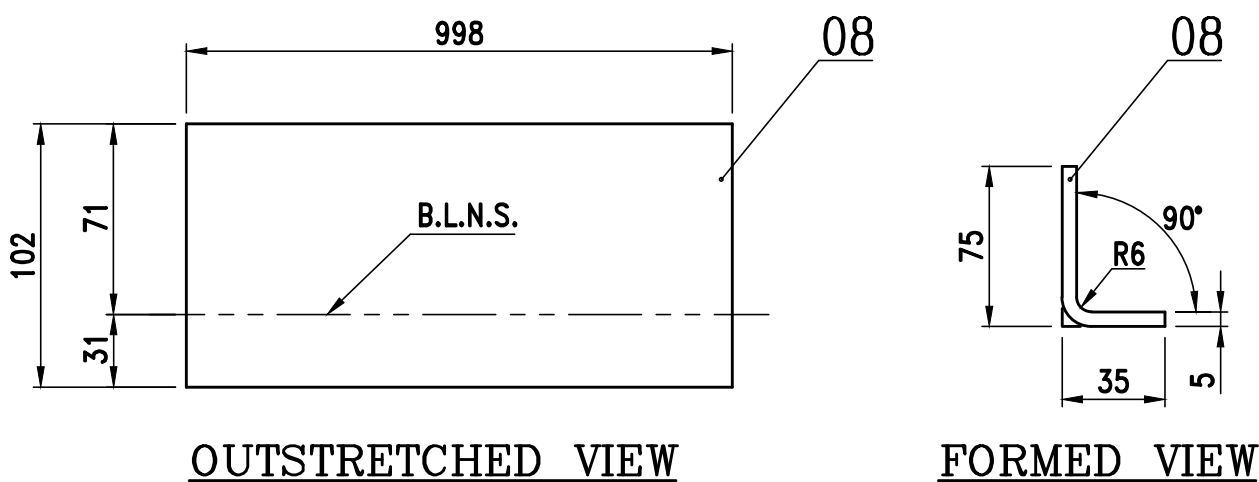
2-52-025-00307
DRAWING NO.

ALL DIMENSIONS ARE IN MILLIMETRES

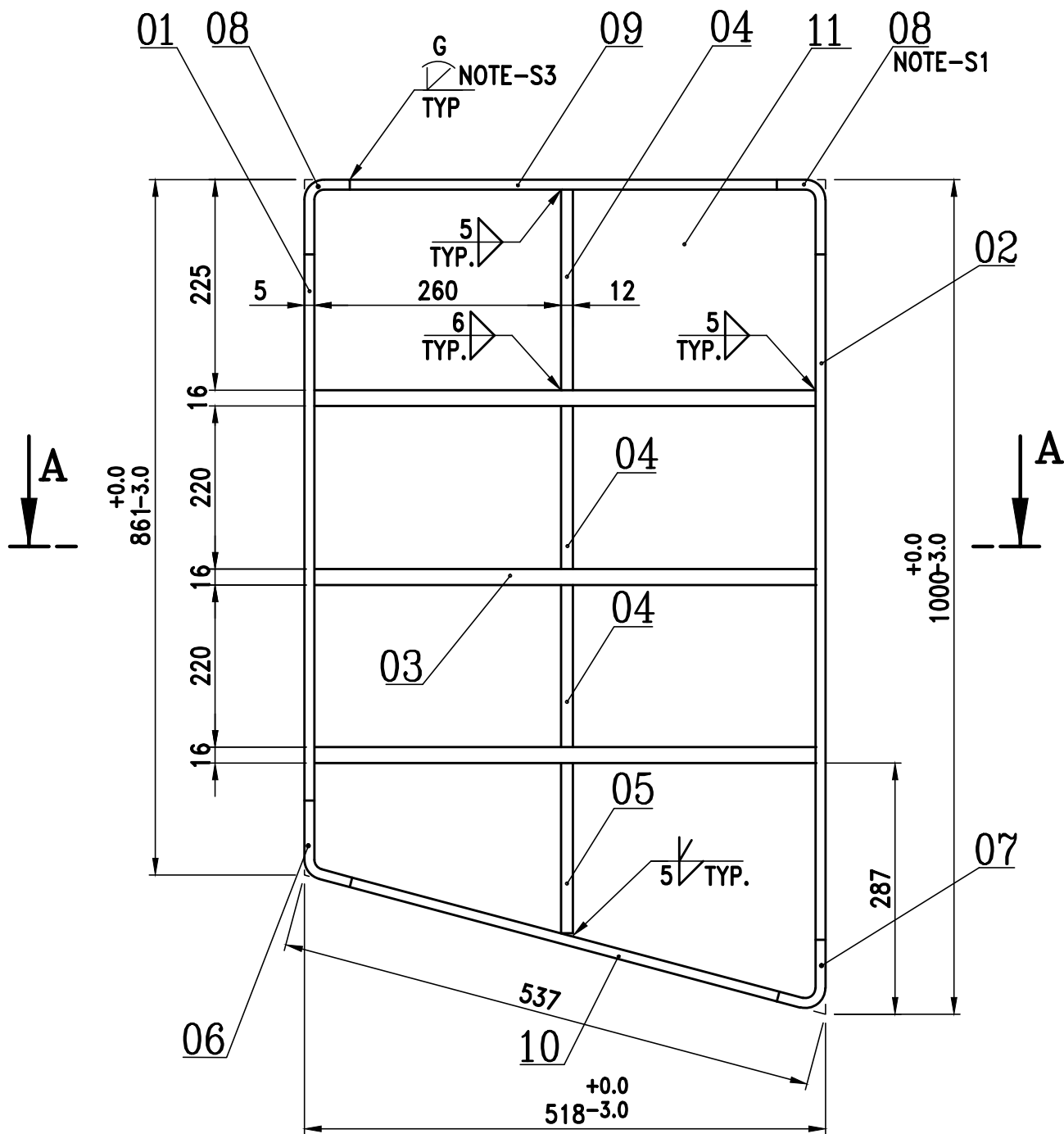
FOR PRODUCTION
REF.: PR:QA:590 FOR PAINTING
REF.: PR:QA:500 FOR UNTOL. DIMS.
REF.: APPLICABLE GMS FOR MATL CODE & SPEC

SHOP NOTES:-

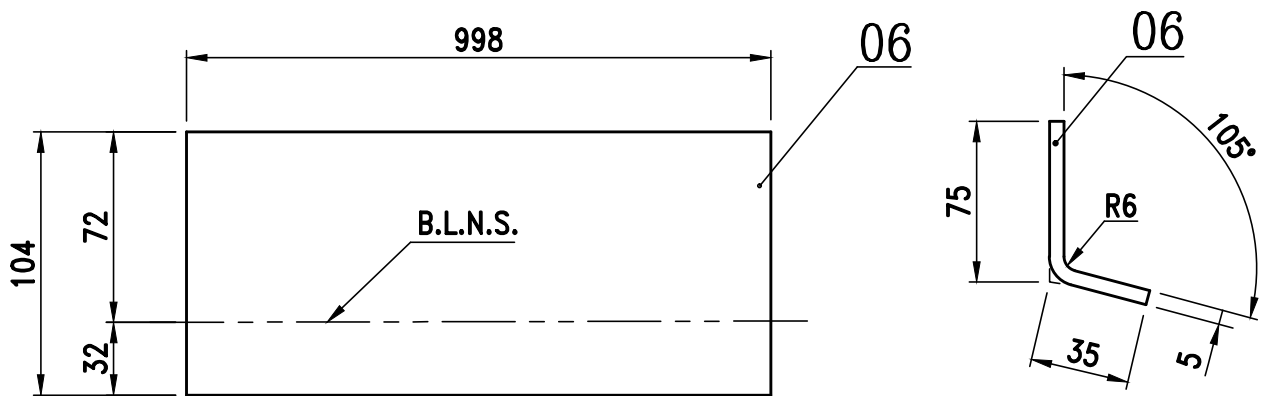
- S-1. ASSEMBLE OUTER END PLATES ITEM NO.02, 75° AND 90° CORNER ANGLES BEFORE WELDING TO BASKET.
S-2. INSTALL ELEMENTS BEFORE WELDING OUTER END PLATE ASSY IN PLACE
S-3. ALL OUTSIDE WELDS TO BE HALF 'V' EDGE PREPARED, WELDED AND FLUSH GROUND TO ENSURE EASY INSERTION OF BASKETS IN THE ROTOR COMPARTMENTS.
S-4. PUNCH "BASKET-F" ON THE ASSEMBLY.



VIEW FROM RIGHT

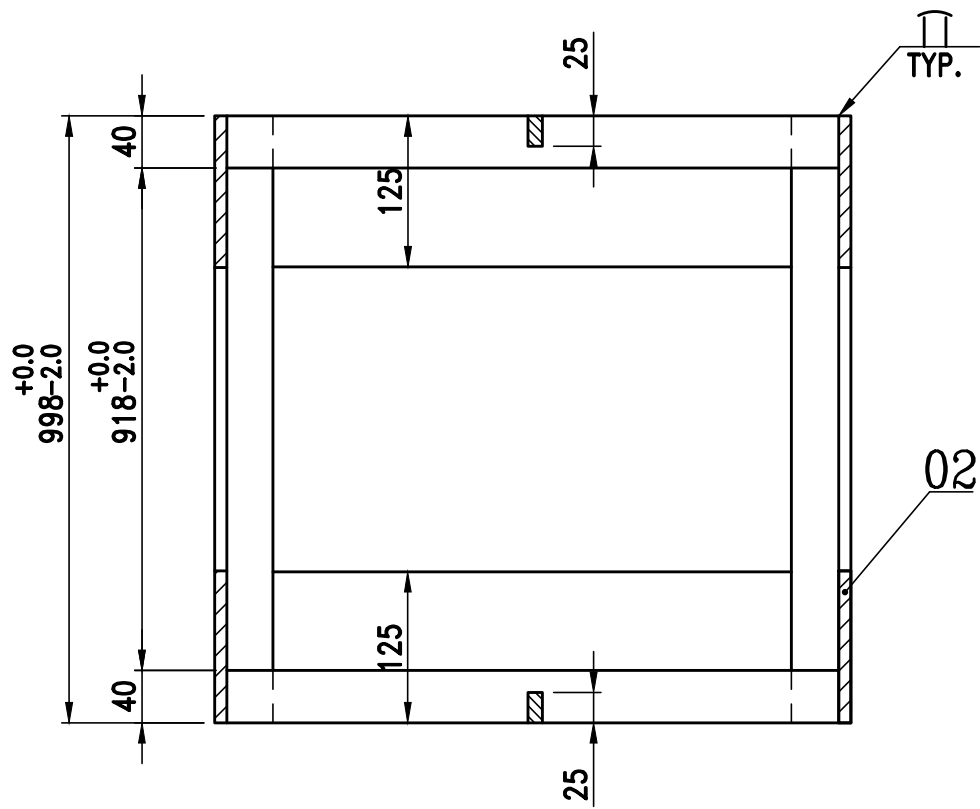


VIEW FROM TOP

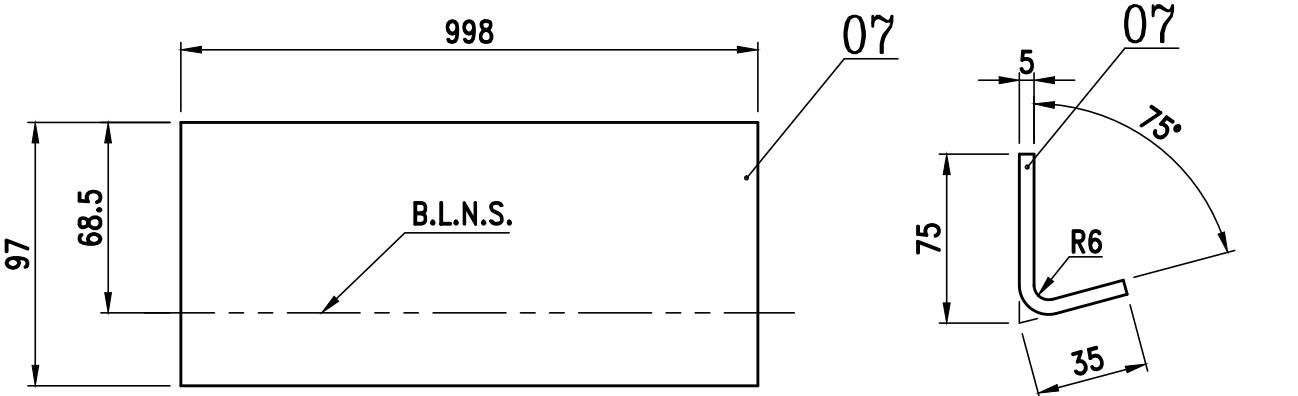


OUTSTRETCHED VIEW

FORMED VIEW



SECTION-AA



OUTSTRETCHED VIEW

FORMED VIEW

	11	HE CUTTING LIST SH 0.63X915 DU		4-52-025-02366		158117150915			428.220	
						IS 513 DD			1	
	10	PL 5X125X466				AA1011808013			2.290	
						IS 2062 GR A			2	
	09	PL 5X125X447				AA1011808013			2.190	
						IS 2062 GR A			2	
	08	90DEG COR ANGLE PL 5X102X998				AA1011808013			4.000	
						IS 2062 GR A			2	
	07	75DEG COR ANGLE PL 5X97X998				AA1011808013			3.800	
						IS 2062 GR A			1	
	06	105DEG COR ANGLE PL 5X104X998				AA1011808013			4.070	
						IS 2062 GR A			1	
	05	SPIDER BAR FL 25X12;214				AA1010308505			0.500	
						IS 2062 GR A			2	
	04	SPIDER BAR FL 25X12;220				AA1010308505			0.518	
						IS 2062 GR A			6	
	03	HOLDING BAR FL 40X16;508				AA1010308599			2.550	
						IS 2062 GR A			6	
	02	OUTER END PLATE PL 5X125X850				AA1011808013			4.170	
						IS 2062 GR A			2	
	01	INNER END PLATE PL 5X125X711				AA1011808013			3.490	
						IS 2062 GR A			2	
VAR NO	ITEM NO	DESCRIPTION	CAT	DRAWING No.	ITEM NO VAR NO	MATL CODE MATL SPECN	A/P/C DI	UNIT QTY	UNIT WT	G.S ZONE

TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT									
BHARAT HEAVY ELECTRICALS LTD., UNIT: BOILER AUXILIARIES PLANT. RANIPET - 632 406.									
DEPT AP	GRADE OF UNTOL DIM PR: QA: 500	SCALE NTS	WEIGHT (KG). 487.778	NAME BALU K	SIGN Sd..	DATE 06.05.83	NO. OF VAR.	REF. TO ASSY/OLD DRG.	ITEM NO. NO. OF ITEMS
ASSY OF BASKET-F				CARD CODE U 01	DRAWING NO. 2-52-025-00307			REV 03	

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REV 03	DATE 31.03.12	ALTERED A.K CHECKED RSB
BASKET IMPROVED DESIGN INTRODUCED AND TOTAL WEIGHT WAS 486.410		

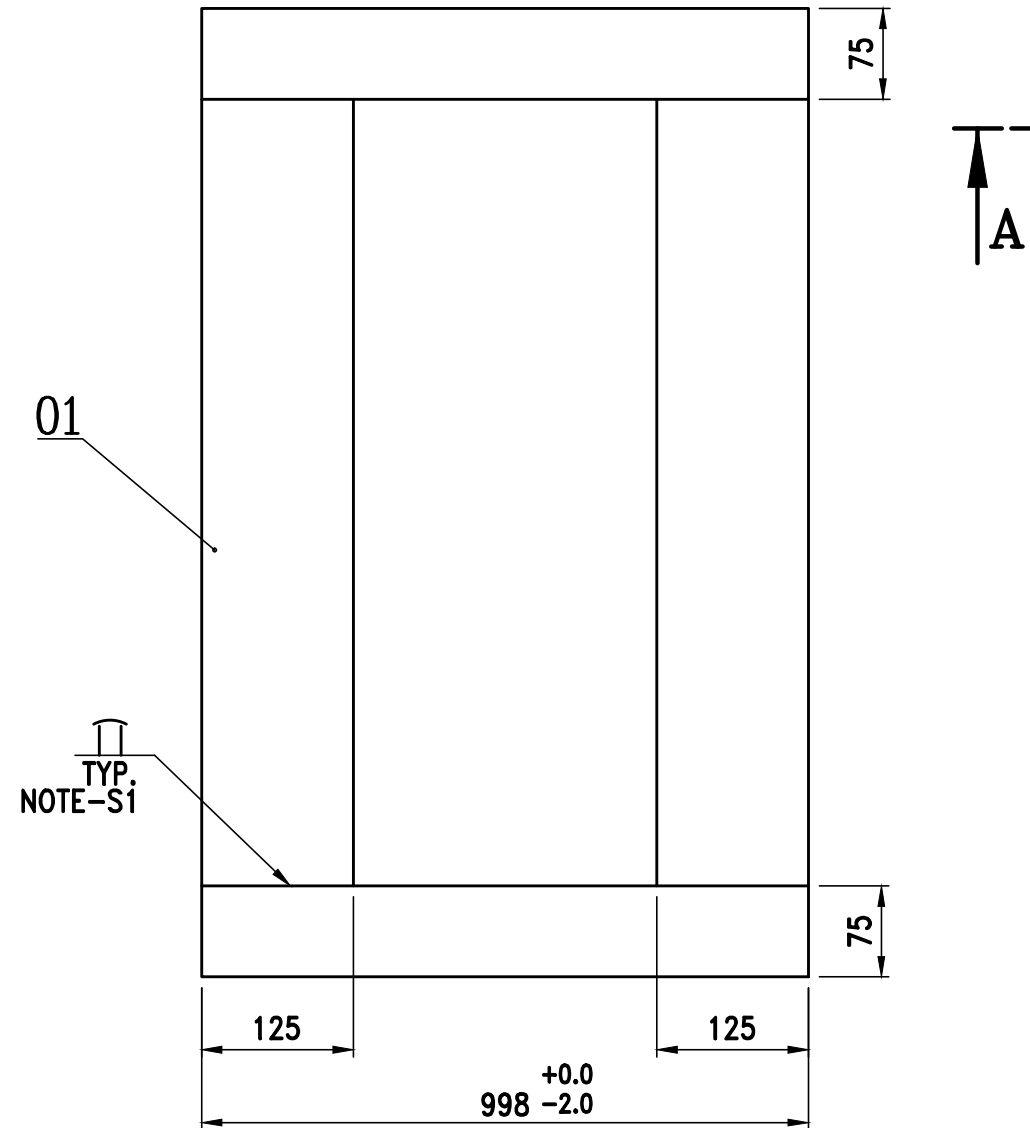
80300-570-25-2
DRAWING NO.

ALL DIMENSIONS ARE IN MILLIMETRES

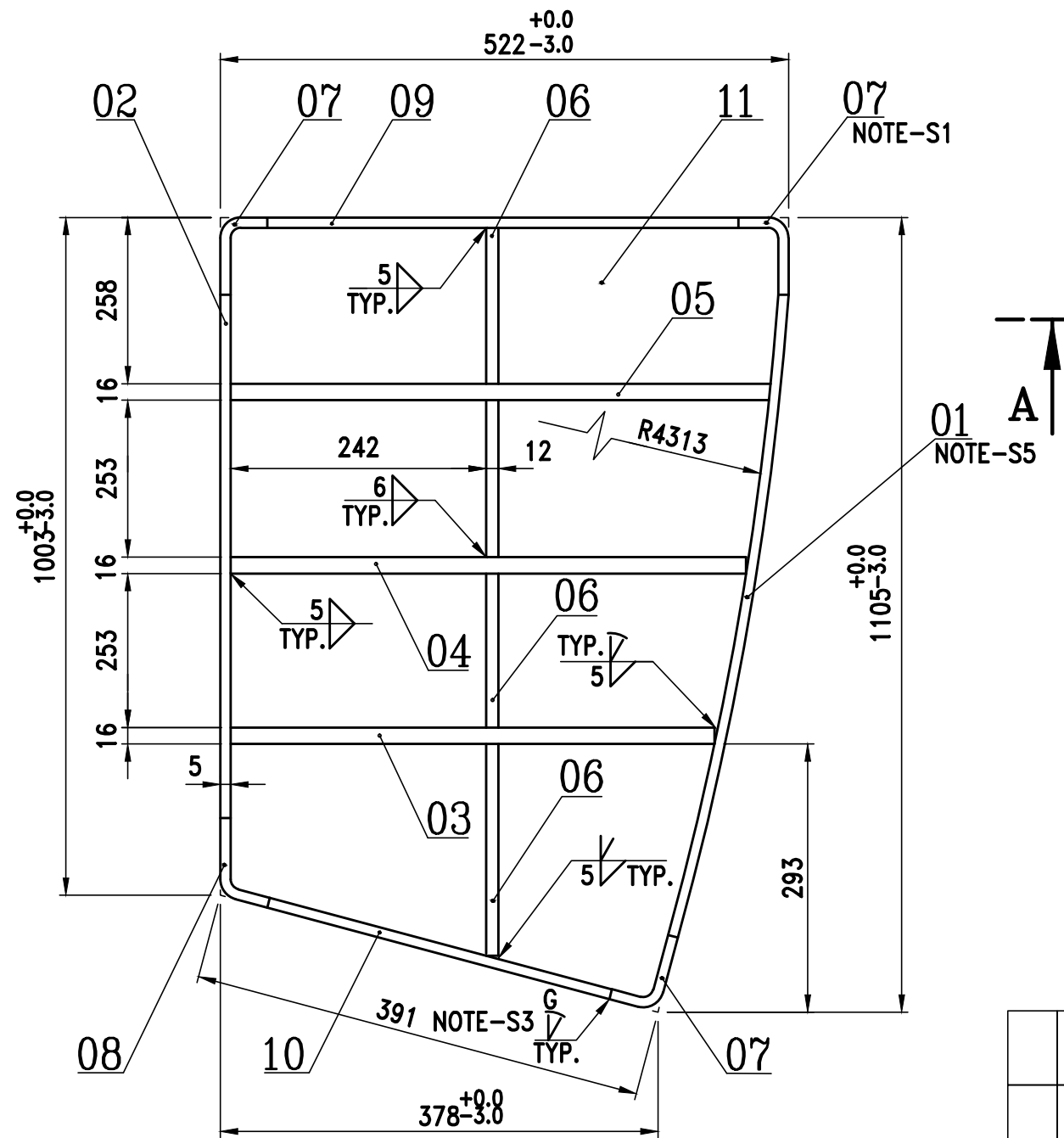
FOR PRODUCTION
REF.: PRQA : 590 FOR PAINTING
REF.: PRQA : 500 FOR UNTOL DIMNS.

SHOP NOTES:-

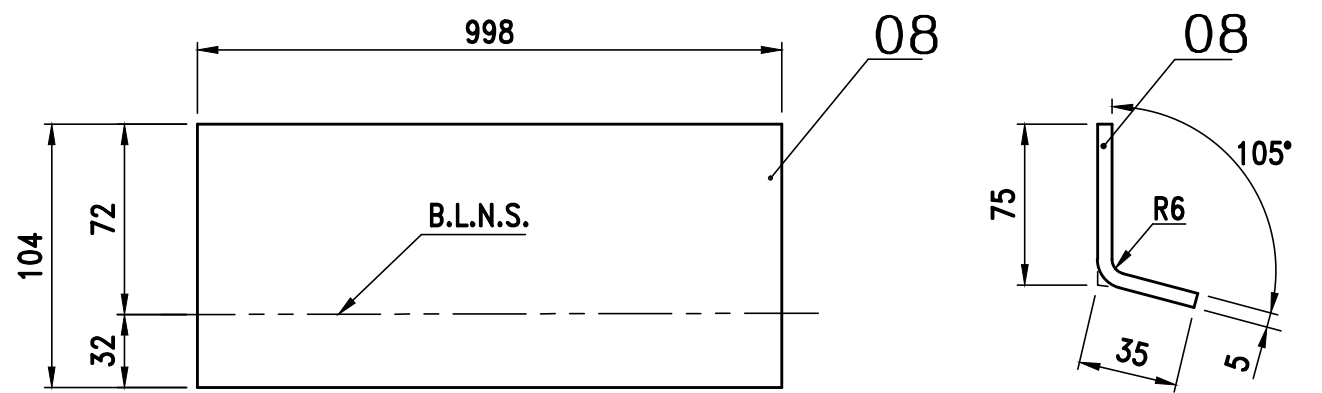
- S-1. ASSEMBLE OUTER END PLATES ITEM NO.01, AND 90° CORNER ANGLES ITEM NO.07 BEFORE WELDING TO BASKET.
S-2. INSTALL ELEMENTS BEFORE WELDING OUTER END PLATE ASSY IN PLACE.
S-3. ALL OUTSIDE WELDS TO BE HALF 'V' EDGE PREPARED, WELDED AND FLUSH GROUND TO ENSURE EASY INSERTION OF BASKETS IN THE ROTOR COMPARTMENTS.
S-4. PUNCH "BASKET-G27" ON THE ASSEMBLY.
S-5. ROLL ITEM NO. 01 TO IR.4313.



VIEW FROM RIGHT

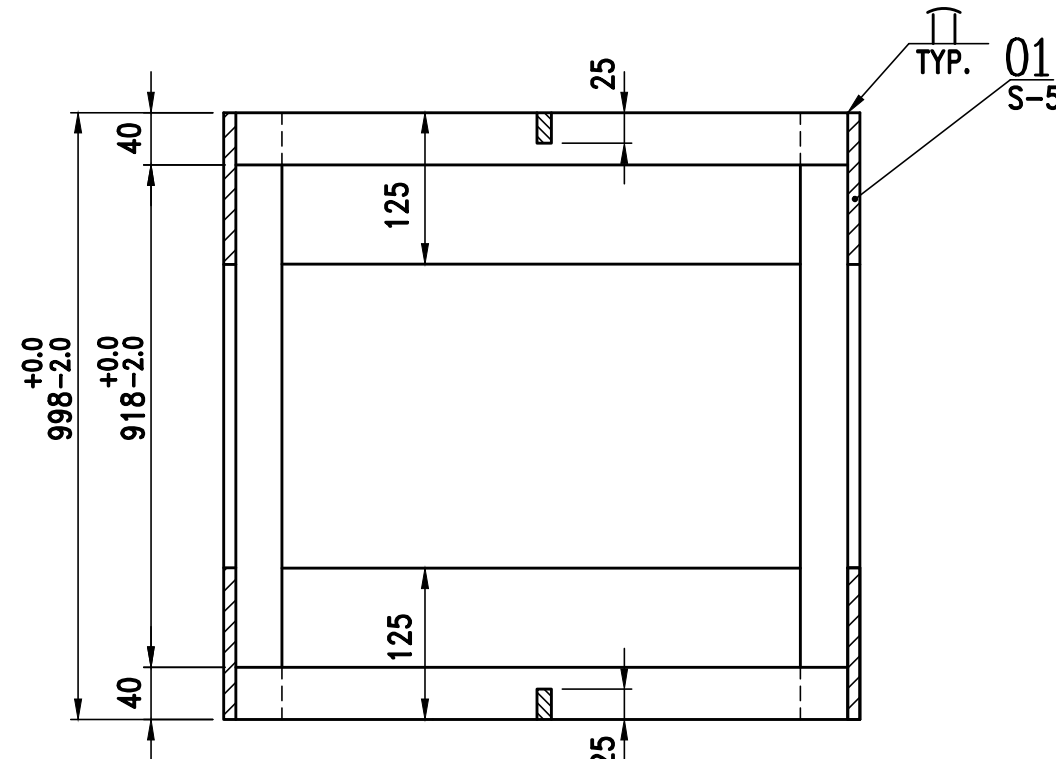


VIEW FROM TOP

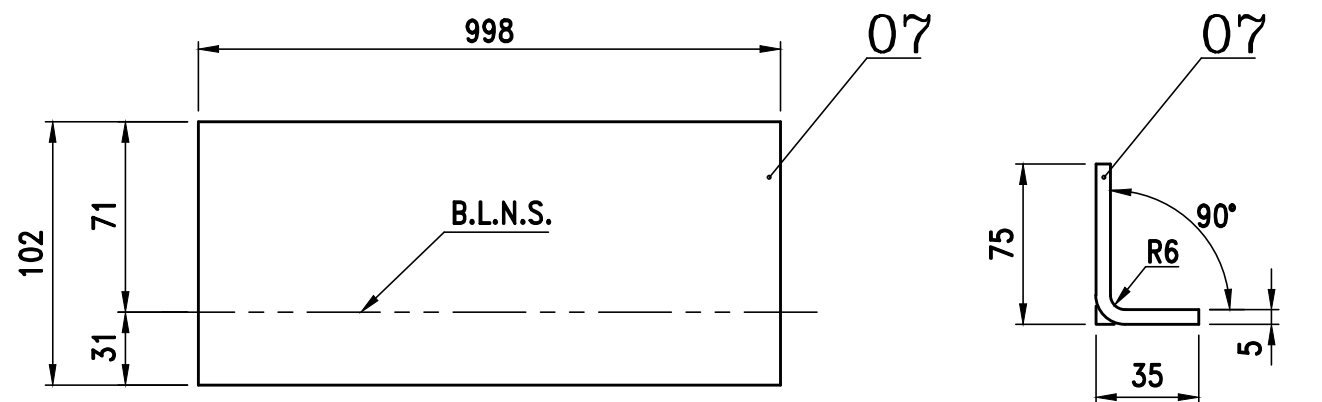


OUTSTRETCHED VIEW

FORMED VIEW



SECTION-AA

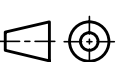


OUTSTRETCHED VIEW

FORMED VIEW

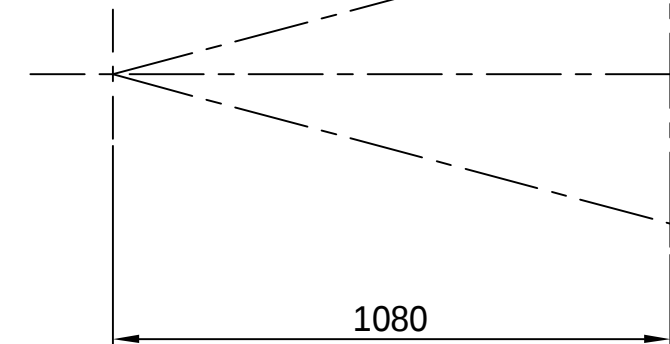
	11	HE CUTTING LIST SH.0.63x915 DU		4-52-025-02367		158117150915			447.435		
						IS 513 DD			1		
	10	PL.5x125x320				AA1011808013			1.570		
						IS 2062 Gr A			2		
	09	PL.5x125x451				AA1011808013			2.210		
						IS 2062 Gr A			2		
	08	105DEG.COR.ANGLE PL.5x104x998				AA1011808013			4.070		
						IS 2062 Gr A			1		
	07	90 DEG.COR.ANGLE PL.5x102x998				AA1011808013			4.000		
						IS 2062 Gr A			3		
	06	SPIDER BAR F25x12; 253				AA1010308505			0.590		
						IS 2062 Gr A			8		
	05	HOLDING BAR F40x16; 503				AA1010308599			2.530		
						IS 2062 Gr A			2		
	04	HOLDING BAR F40x16; 478				AA1010308599			2.40		
						IS 2062 Gr A			2		
	03	HOLDING BAR F40x16; 435				AA1010308599			2.190		
						IS 2062 Gr A			2		
	02	INNER END PLATE PL.5x125x853				AA1011808013			4.190		
						IS 2062 Gr A			2		
	01	OUTER END PLATE PL.5x125x966				AA1011808013			4.740		
						IS 2062 Gr A			2		
VAR NO	ITEM NO	DESCRIPTION	CAT	DRAWING No.	ITEM NO VAR NO	MATL CODE MATL SPECN	A/P/C DI	UNIT QTY	UNIT WT	G.S	ZONE

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TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT									
 BHARAT HEAVY ELECTRICALS LTD., UNIT: BOILER AUXILIARIES PLANT. RANIPET - 632 406.				DRN	NAME NAGARAJAN S	SIGN Sd..	DATE 25.06.82	NO. OF VAR.	
				CHD	VRG	Sd..			
				APPD	VRG	Sd..			
DEPT AP	GRADE OF UNTOL DIM PR: QA: 500		SCALE NTS	WEIGHT (KG). 507.885	REF. TO ASSY/OLD DRG. -----			ITEM NO.	NO. OF ITEMS
CODE 852									
TITLE ASSY OF BASKET-G27					CARD CODE U 01	DRAWING NO. 2-52-025-00308			REV 02

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.

REV 02	DATE 31.03.12	ALTERED A.K CHECKED RSB
BASKET IMPROVED DESIGN INTRODUCED AND TOTAL WEIGHT WAS 509.420		



Inside Radius 4328
ROTOR SHELL

02

02

02

02

02

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CAUTION: The document is the property of HEAVY ELECTRIC and should not be used directly or indirectly in any way detrimental to the company.

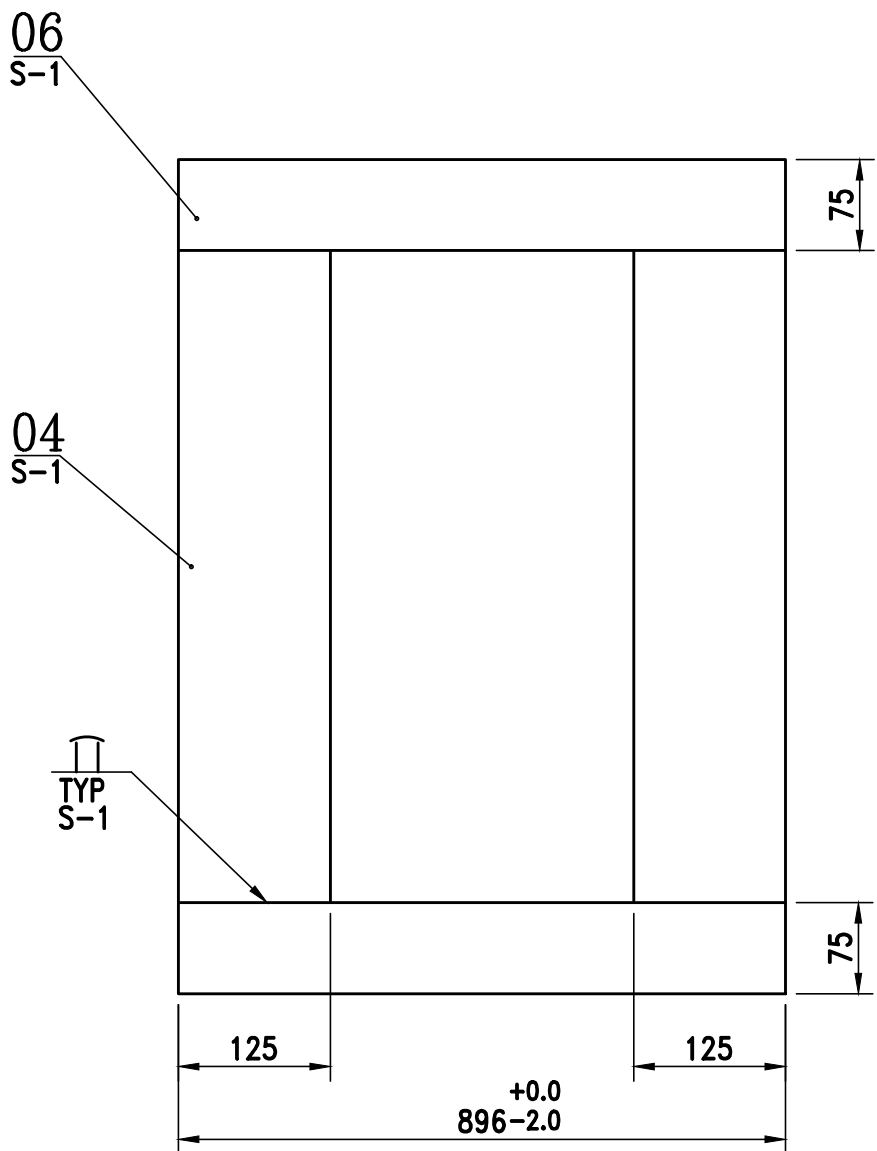
01500-SZ0-00310
DRAWING NO.

ALL DIMENSIONS ARE IN MILLIMETRES

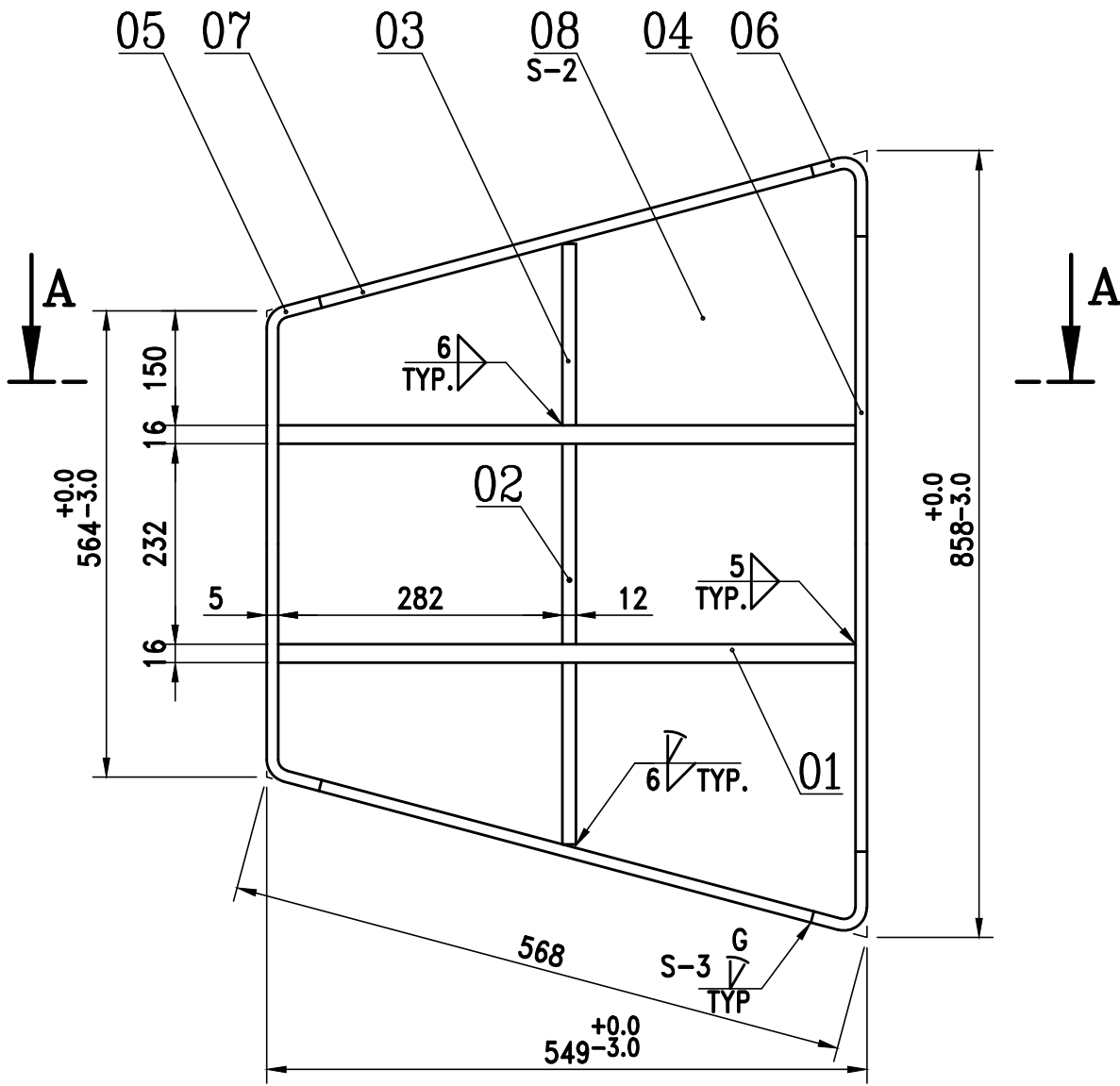
FOR PRODUCTION
REF.: PR:QA:590 FOR PAINTING
REF.: PR:QA:500 FOR UNTOL. DIMS.
REF.: APPLICABLE GMS FOR MATL CODE & SPEC

SHOP NOTES:-

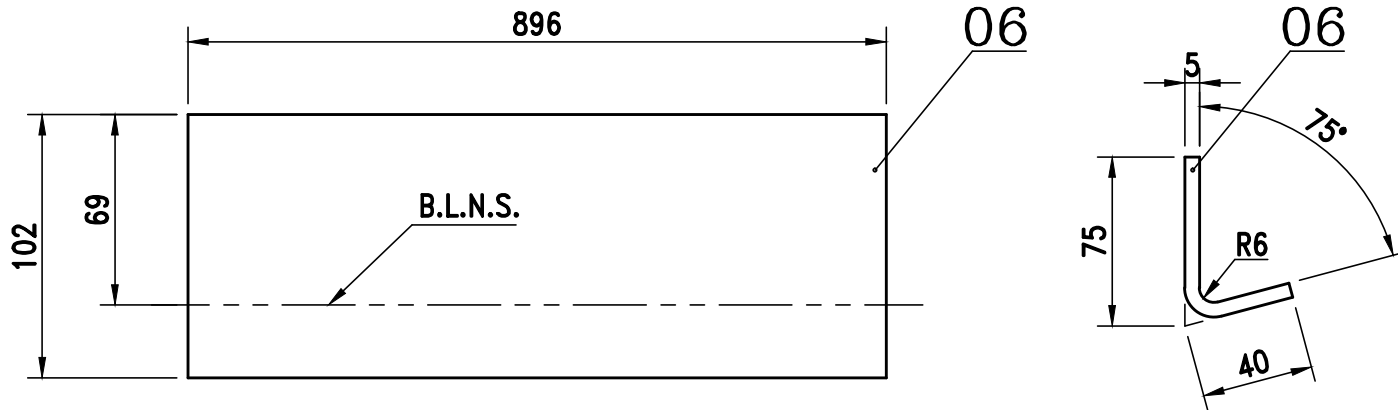
- S-1. ASSEMBLE OUTER END PLATES ITEM NO.04, AND 75° CORNER ANGLES BEFORE WELDING TO BASKET.
S-2. INSTALL ELEMENTS BEFORE WELDING OUTER END PLATE ASSY IN PLACE
S-3. ALL OUTSIDE WELDS TO BE HALF 'V' EDGE PREPARED, WELDED AND FLUSH GROUND TO ENSURE EASY INSERTION OF BASKETS IN THE ROTOR COMPARTMENTS.
S-4. PUNCH "BASKET-AB" ON THE ASSEMBLY.



VIEW FROM RIGHT

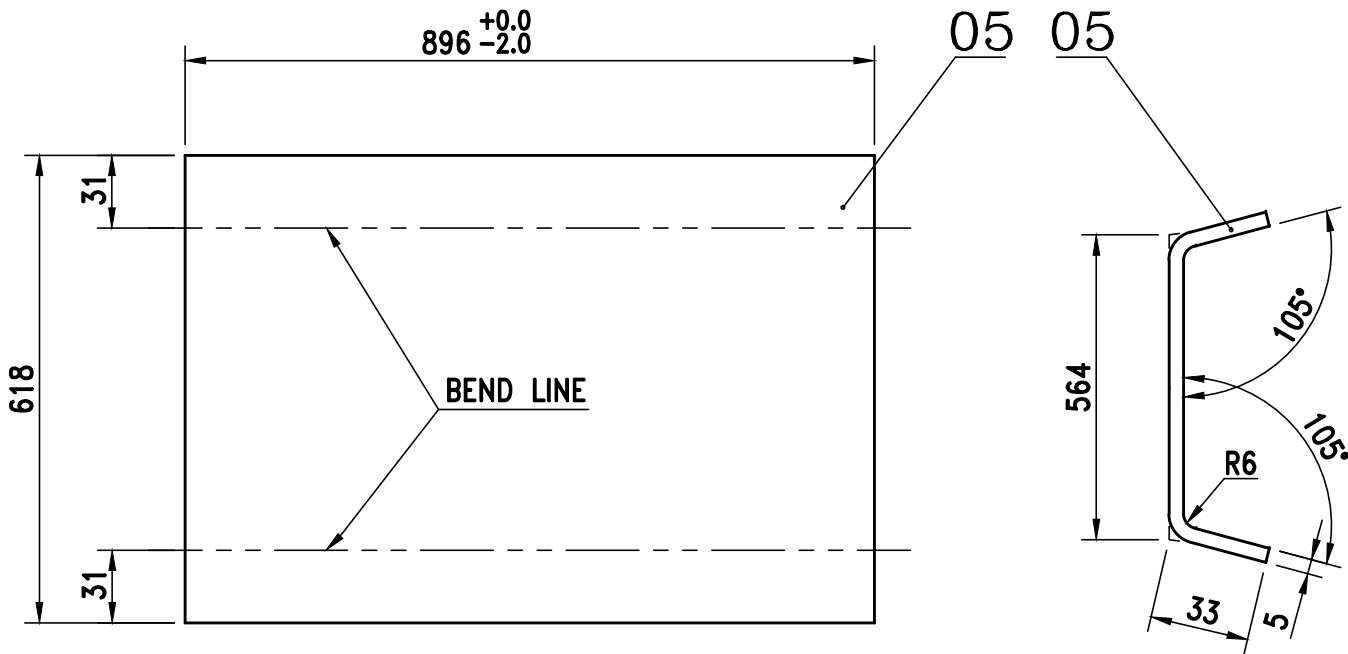


VIEW FROM TOP



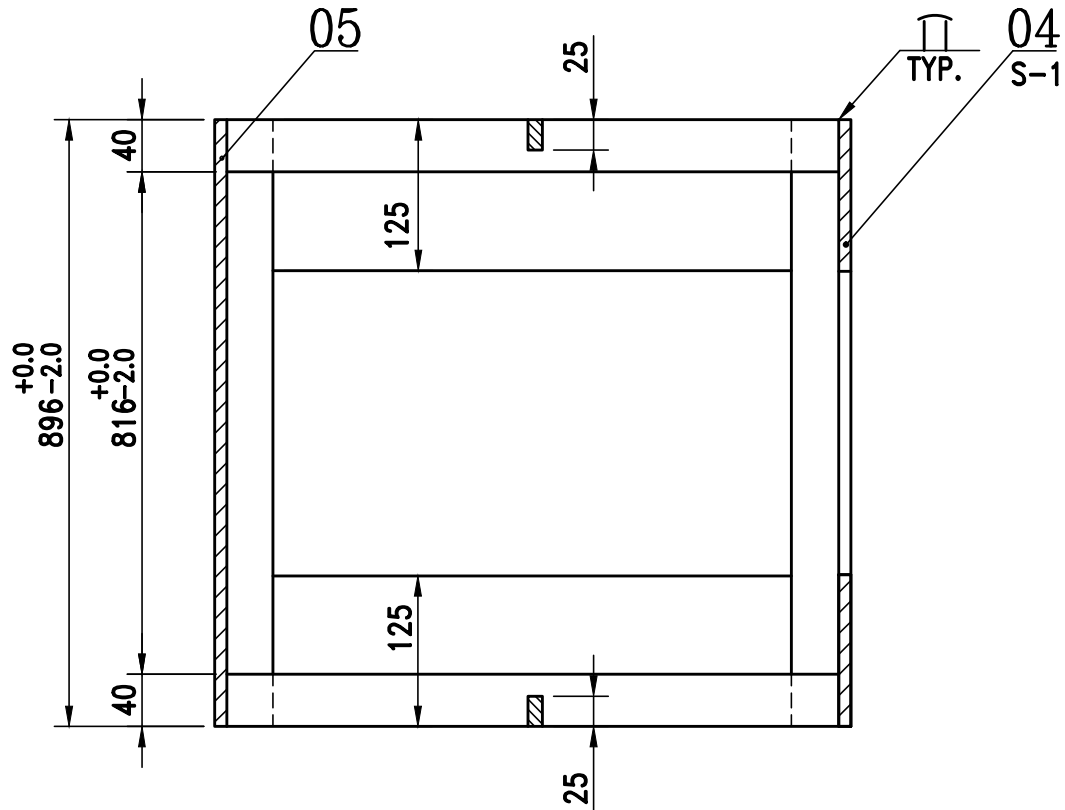
OUTSTRETCHED VIEW

FORMED VIEW



OUTSTRETCHED VIEW

FORMED VIEW

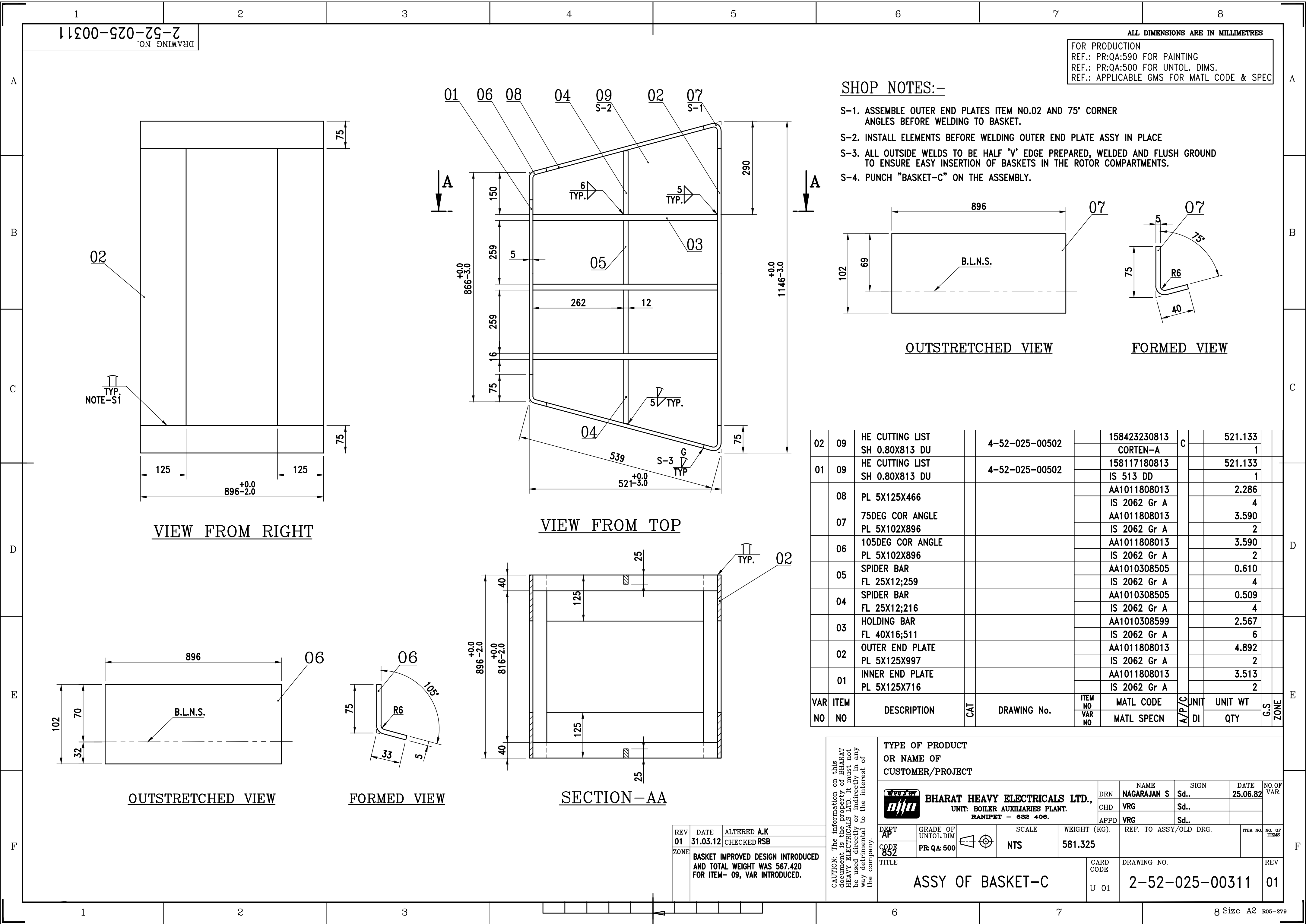


SECTION-AA

VAR NO	ITEM NO	DESCRIPTION	CAT	DRAWING No.	ITEM NO VAR NO	MATL CODE	A/P/C	UNIT DI	UNIT WT QTY	G.S	ZONE
02	08	HE CUTTING LIST SH 0.80X813 DU	4-52-025-00501	158423230813 CORTEN-A	C	386.988		1			
01	08	HE CUTTING LIST SH 0.80X813 DU	4-52-025-00501	158117180813 IS 513 DD		386.988		1			
	07	PL 5X125X495		AA1011808013 IS 2062 Gr A		2.429		4			
	06	75DEG COR ANGLE PL 5X102X896		AA1011808013 IS 2062 Gr A		3.590		2			
	05	INNER END PLATE PL 5X618X896		AA1011808013 IS 2062 Gr A		21.730		1			
	04	OUTER END PLATE PL 5X125X708		AA1011808013 IS 2062 Gr A		3.474		2			
	03	SPIDER BAR FL 25X12;221		AA1010308505 IS 2062 Gr A		0.520		4			
	02	SPIDER BAR FL 25X12;232		AA1010308505 IS 2062 Gr A		0.546		2			
	01	HOLDING BAR FL 40X16;539		AA1010308599 IS 2062 Gr A		2.708		4			

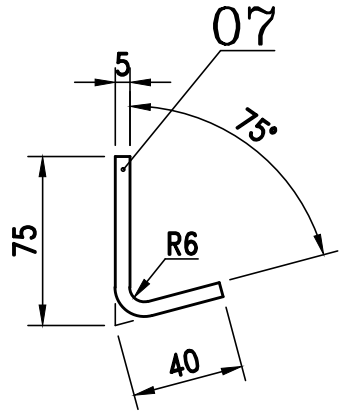
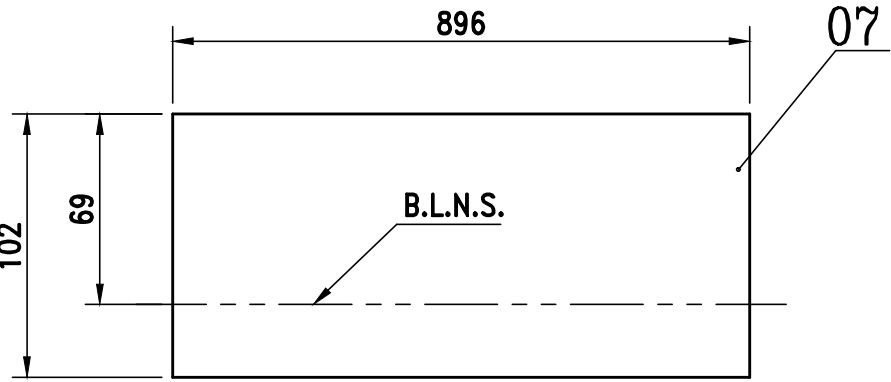
CAUTION: The information on this document is the property of BHARAT HEAVY ELECTRICALS LTD. It must not be used directly or indirectly in any way detrimental to the interest of the company.	TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT		NAME NAGARAJAN S		SIGN Sd..	DATE	NO. OF VAR.	
	BHARAT HEAVY ELECTRICALS LTD., UNIT: BOILER AUXILIARIES PLANT. RANIPET - 632 406.		DRN	VRG	Sd..			
	DEPT AP		GRADE OF UNTOL DIM PR: QA: 500	SCALE NTS	WEIGHT (KG). 446.566	REF. TO ASSY/OLD DRG.	ITEM NO.	NO. OF ITEMS
	CODE 852		TITLE ASSY OF BASKET-AB		CARD CODE U 01	DRAWING NO. 2-52-025-00310		REV 02

REV 02 DATE 31.03.12 ALTERED A.K
ZONE CHECKED RSB
BASKET IMPROVED DESIGN INTRODUCED
AND TOTAL WEIGHT WAS 426.460.
FOR ITEM- 08, VAR INTRODUCED.



SHOP NOTES:-

- S-1. ASSEMBLE OUTER END PLATES ITEM NO.02 AND 75° CORNER ANGLES BEFORE WELDING TO BASKET.
- S-2. INSTALL ELEMENTS BEFORE WELDING OUTER END PLATE ASSY IN PLACE
- S-3. ALL OUTSIDE WELDS TO BE HALF 'V' EDGE PREPARED, WELDED AND FLUSH GROUND TO ENSURE EASY INSERTION OF BASKETS IN THE ROTOR COMPARTMENTS.
- S-4. PUNCH "BASKET-C" ON THE ASSEMBLY.



OUTSTRETCHED VIEW

FORMED VIEW

02	09	HE CUTTING LIST SH 0.80X813 DU	4-52-025-00502	158423230813 CORTEN-A	C	521.133	1		
01	09	HE CUTTING LIST SH 0.80X813 DU	4-52-025-00502	158117180813 IS 513 DD		521.133	1		
	08	PL 5X125X466		AA1011808013 IS 2062 Gr A		2.286	4		
	07	75DEG COR ANGLE PL 5X102X896		AA1011808013 IS 2062 Gr A		3.590	2		
	06	105DEG COR ANGLE PL 5X102X896		AA1011808013 IS 2062 Gr A		3.590	2		
	05	SPIDER BAR FL 25X12;259		AA1010308505 IS 2062 Gr A		0.610	4		
	04	SPIDER BAR FL 25X12;216		AA1010308505 IS 2062 Gr A		0.509	4		
	03	HOLDING BAR FL 40X16;511		AA1010308599 IS 2062 Gr A		2.567	6		
	02	OUTER END PLATE PL 5X125X997		AA1011808013 IS 2062 Gr A		4.892	2		
	01	INNER END PLATE PL 5X125X716		AA1011808013 IS 2062 Gr A		3.513	2		
VAR NO	ITEM NO	DESCRIPTION	CAT	DRAWING No.	ITEM NO VAR NO	MATL CODE MATL SPECN	A/P/C DI	UNIT QTY	UNIT WT G.S ZONE

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TYPE OF PRODUCT
OR NAME OF
CUSTOMER/PROJECT

DEPT
AP

GRADE OF
UNTOL DIM
PR: QA: 500

SCALE
NTS

WEIGHT (KG).
581.325

NAME
NAGARAJAN S

SIGN
Sd..

DATE
25.06.82

NO. OF
VAR.

CHD
VRG

Sd..

APPD
VRG

Sd..

REF. TO ASSY/OLD DRG.

ITEM NO.

NO. OF
ITEMS

DEPT
AP

CODE
852

TITLE
ASSY OF BASKET-C

CARD
CODE
U 01

DRAWING NO.
2-52-025-00311

REV
01

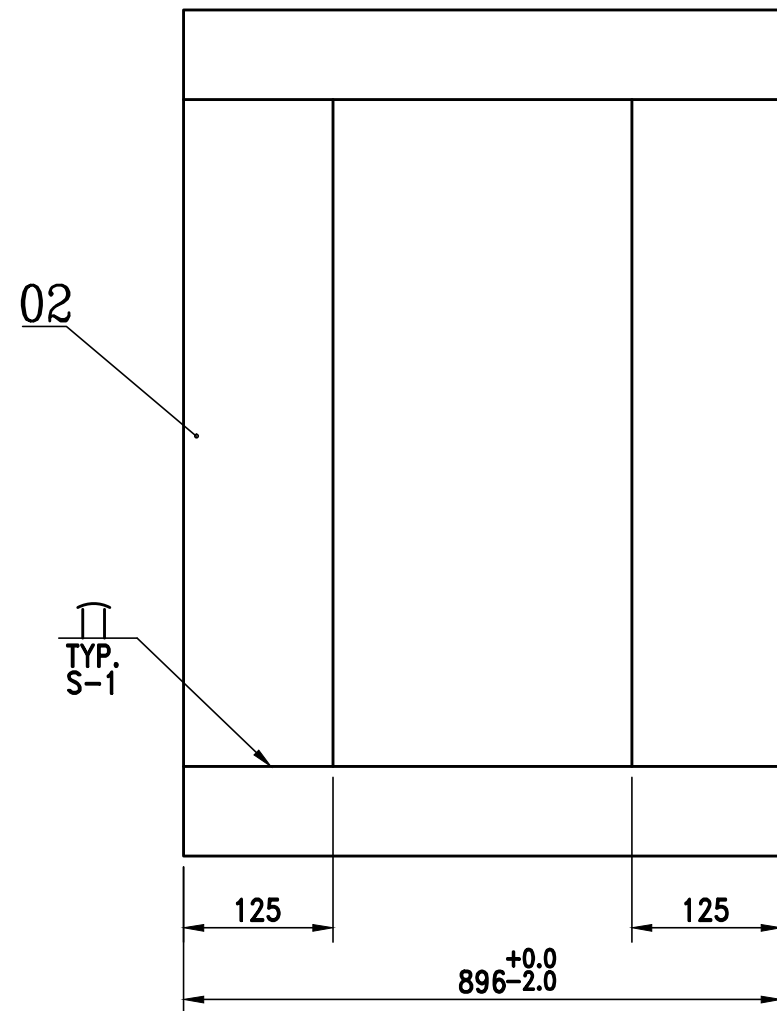
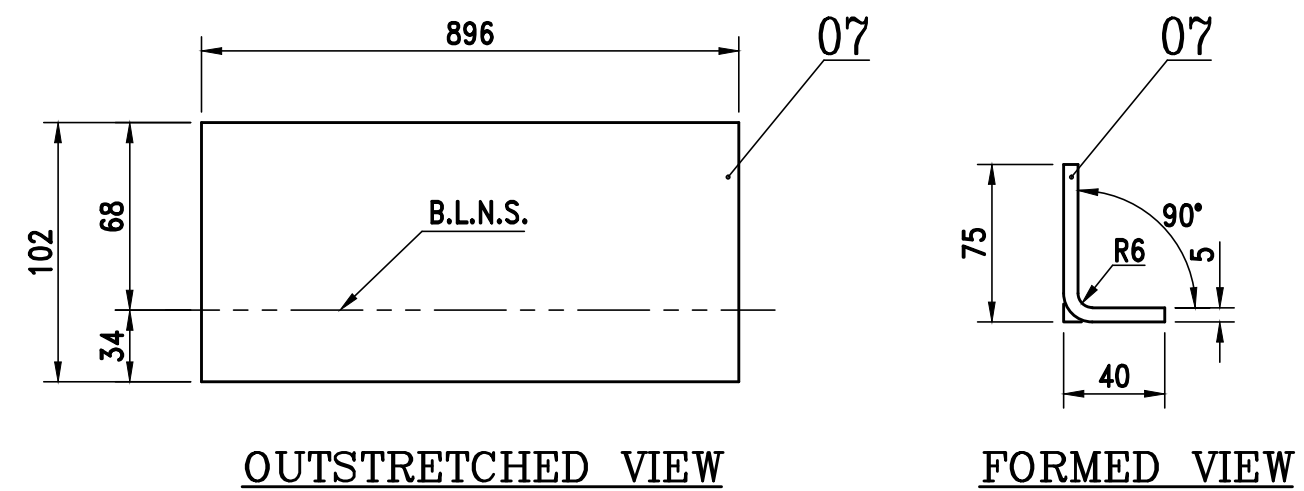
2-52-025-00312
DRAWING NO.

ALL DIMENSIONS ARE IN MILLIMETRES

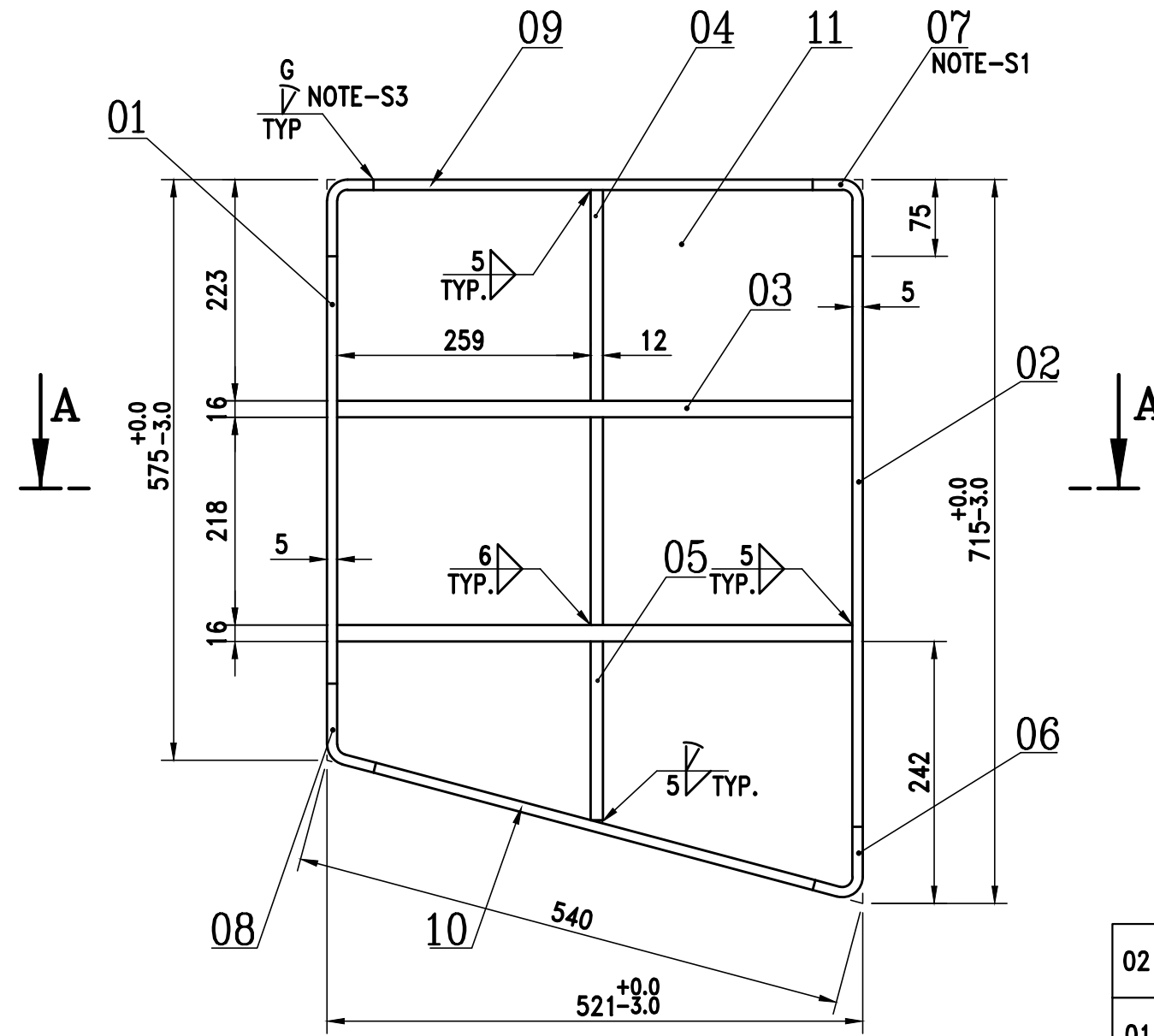
FOR PRODUCTION
REF.: PR:QA:590 FOR PAINTING
REF.: PR:QA:500 FOR UNTOL. DIMS.
REF.: APPLICABLE GMS FOR MATL CODE & SPEC

SHOP NOTES:-

- S-1. ASSEMBLE OUTER END PLATES ITEM NO.02, 75° AND 90° CORNER ANGLES BEFORE WELDING TO BASKET.
- S-2. INSTALL ELEMENTS BEFORE WELDING OUTER END PLATE ASSY IN PLACE
- S-3. ALL OUTSIDE WELDS TO BE HALF 'V' EDGE PREPARED, WELDED AND FLUSH GROUND TO ENSURE EASY INSERTION OF BASKETS IN THE ROTOR COMPARTMENTS.
- S-4. PUNCH "BASKET-D" ON THE ASSEMBLY.

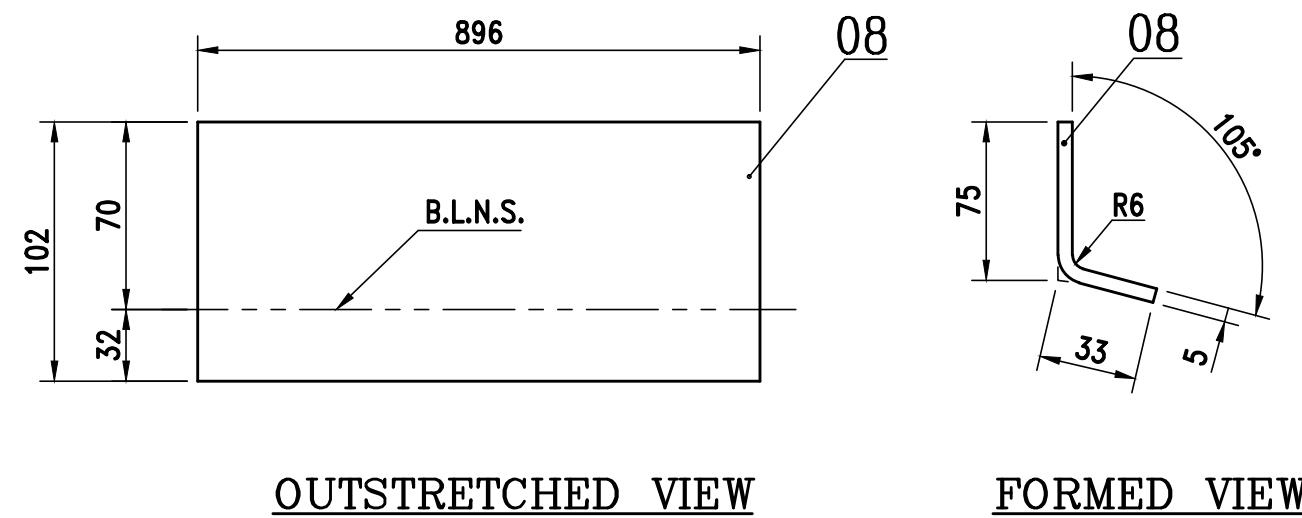


VIEW FROM RIGHT



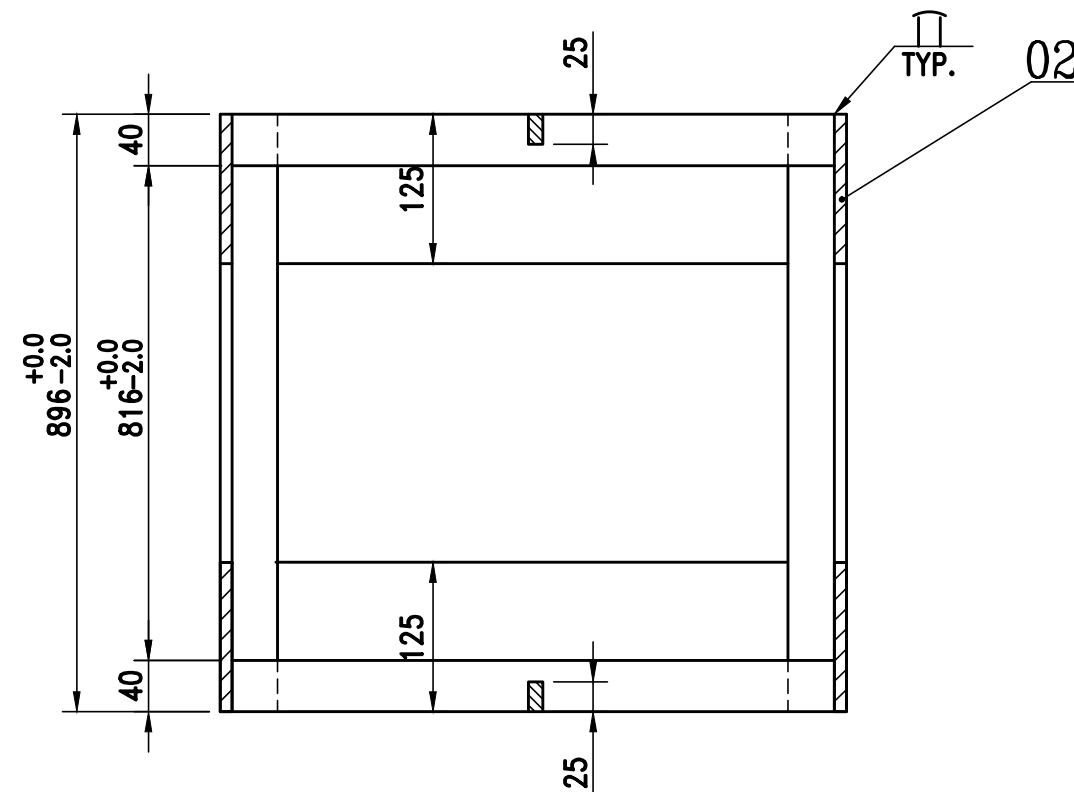
VIEW FROM TOP

02	11	HE CUTTING LIST SH 0.80X813 DU		4-52-025-00503	158423230813	C	332.517		
					CORTEN-A		1		
01	11	HE CUTTING LIST SH 0.80X813 DU		4-52-025-00503	158117180813		332.517		
					IS 513 DD		1		
	10	PL 5X125X467			AA1011808013		2.291		
					IS 2062 Gr A		2		
	09	PL 5X125X441			AA1011808013		2.163		
					IS 2062 Gr A		2		
	08	105DEG COR ANG PL 5X102X896			AA1011808013		3.587		
					IS 2062 Gr A		1		
	07	90DEG COR ANGL PL 5X102X896			AA1011808013		3.587		
					IS 2062 Gr A		2		
	06	75DEG COR ANGLE PL 5X102X896			AA1011808013		3.587		D
					IS 2062 Gr A		1		
	05	SPIDER BAR FL 25X12;168			AA1010308505		0.395		
					IS 2062 Gr A		2		
	04	SPIDER BAR FL 25X12;218			AA1010308505		0.513		
					IS 2062 Gr A		4		
	03	HOLDING BAR FL 40X16;511			AA1010308599		2.567		
					IS 2062 Gr A		4		
	02	OUTER END PLATE PL 5X125X565			AA1011808013		2.772		
					IS 2062 Gr A		2		
	01	INNER END PLATE PL 5X125X425			AA1011808013		2.085		
					IS 2062 Gr A		2		
VAR NO	ITEM NO	DESCRIPTION	CAT	DRAWING No.	ITEM NO VAR NO	A/P/C	UNIT DI	UNIT WT QTY	G-S ZONE
					MATL CODE				
					MATL SPECN				

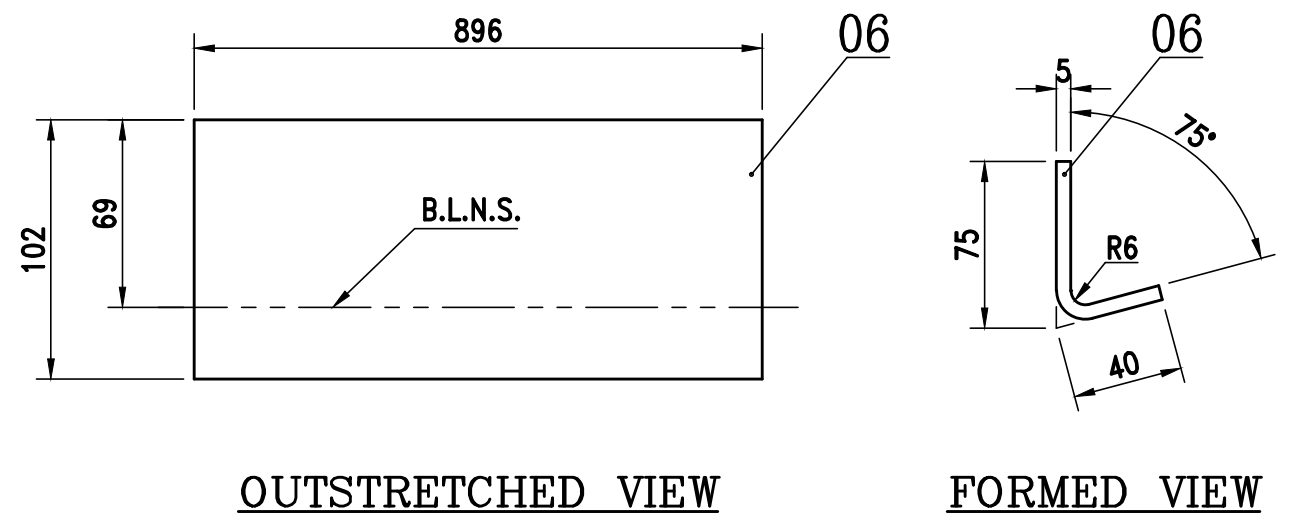


OUTSTRETCHED VIEW

FORMED VIEW



SECTION-AA



OUTSTRETCHED VIEW

FORMED VIEW

REV 02	DATE 03.05.14	ALTERED CHECKED RSB	REV 01	DATE 31.03.12	ALTERED CHECKED RSB
ZONE	ITEM-06, DESC CORRECTED AND TOTAL WEIGHT WAS 379.403		ZONE	BASKET IMPROVED DESIGN INTRODUCED AND TOTAL WEIGHT WAS 368.130 FOR ITEM- 11, VAR INTRODUCED.	

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BHARAT HEAVY ELECTRICALS LTD., UNIT: BOILER AUXILIARIES PLANT. RANIPET - 632 406.		DRN CHD APPD	NAME NAGARAJAN S VRG VRG	SIGN Sd.. Sd.. Sd..	DATE	NO.OF VAR.
DEPT AP	GRADE OF UNTOL.DIM PR: QA: 500	SCALE NTS	WEIGHT (KG). 378.597	REF. TO ASSY/OLD DRG.	ITEM NO.	NO. OF ITEMS
TITLE ASSY OF BASKET-D			CARD CODE U 01	DRAWING NO. 2-52-025-00312		REV 02

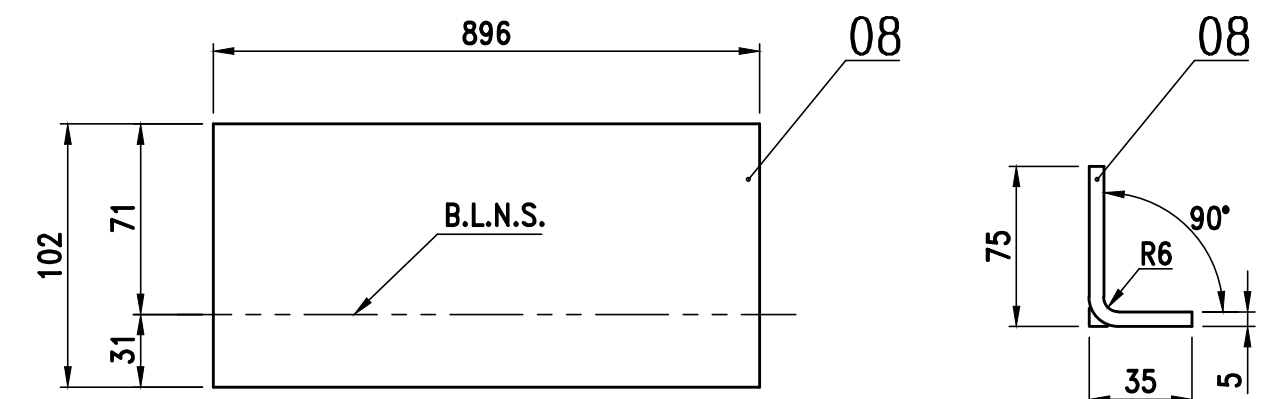
2-52-025-00313
DRAWING NO.

ALL DIMENSIONS ARE IN MILLIMETRES

FOR PRODUCTION
REF.: PR:QA:590 FOR PAINTING
REF.: PR:QA:500 FOR UNTOL. DIMS.
REF.: APPLICABLE GMS FOR MATL CODE & SPEC

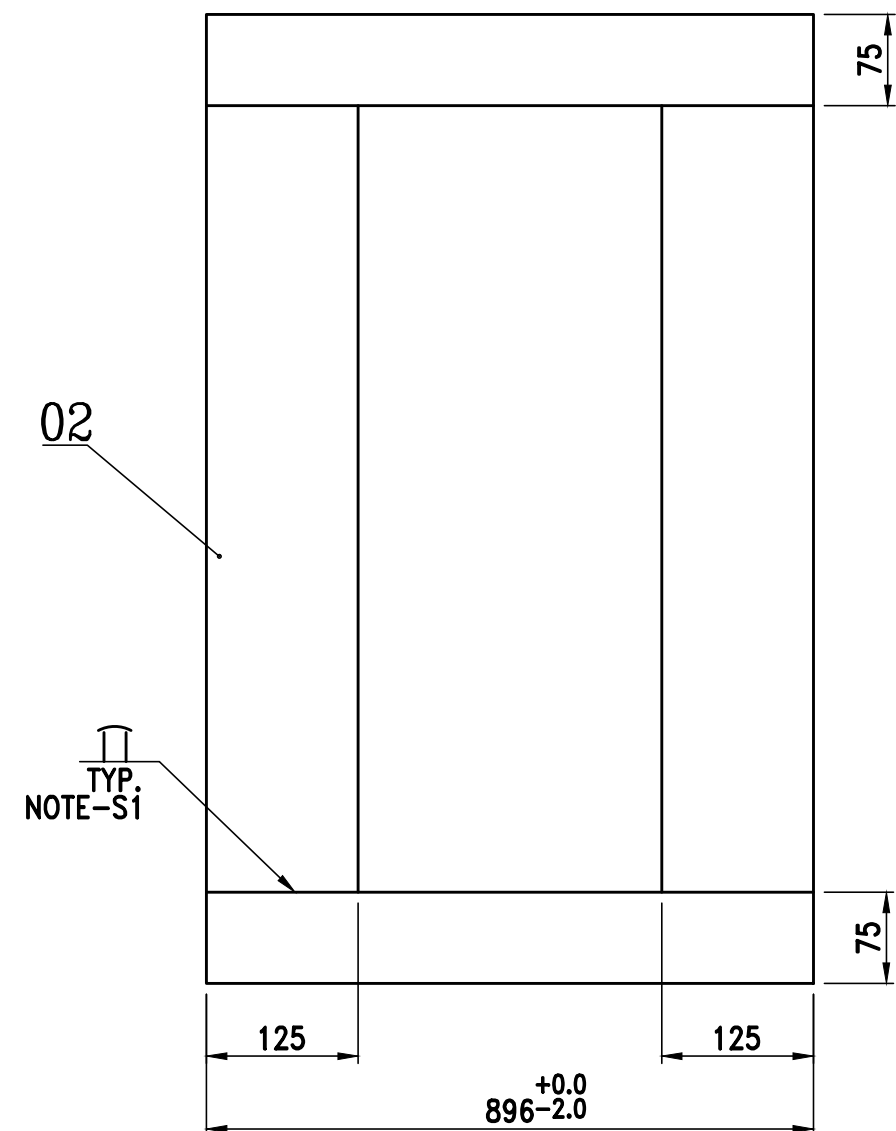
SHOP NOTES:-

- S-1. ASSEMBLE OUTER END PLATES ITEM NO.02, 75° AND 90° CORNER ANGLES BEFORE WELDING TO BASKET.
S-2. INSTALL ELEMENTS BEFORE WELDING OUTER END PLATE ASSY IN PLACE
S-3. ALL OUTSIDE WELDS TO BE HALF 'V' EDGE PREPARED, WELDED AND FLUSH GROUND TO ENSURE EASY INSERTION OF BASKETS IN THE ROTOR COMPARTMENTS.
S-4. PUNCH "BASKET-E" ON THE ASSEMBLY.

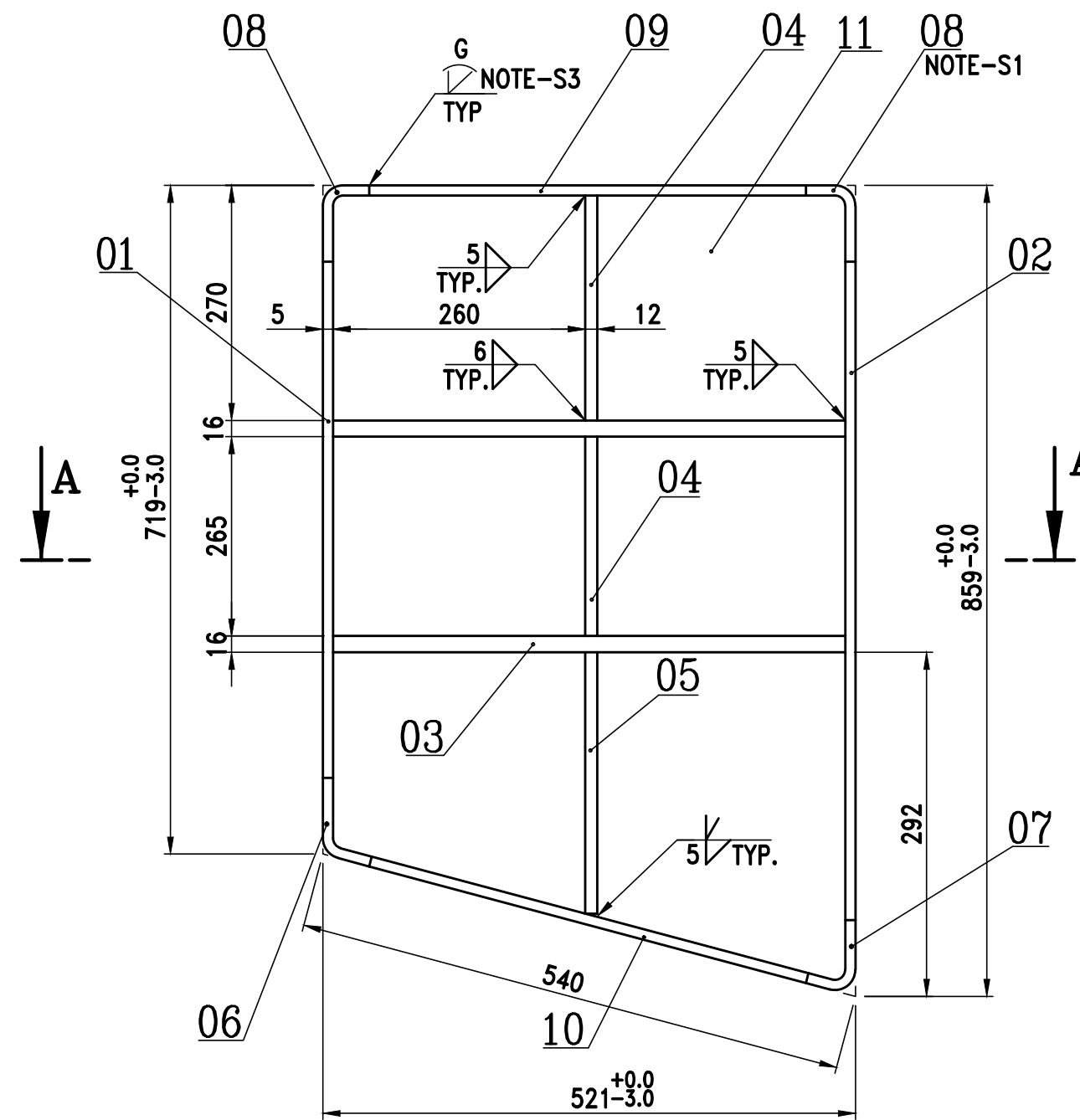


OUTSTRETCHED VIEW

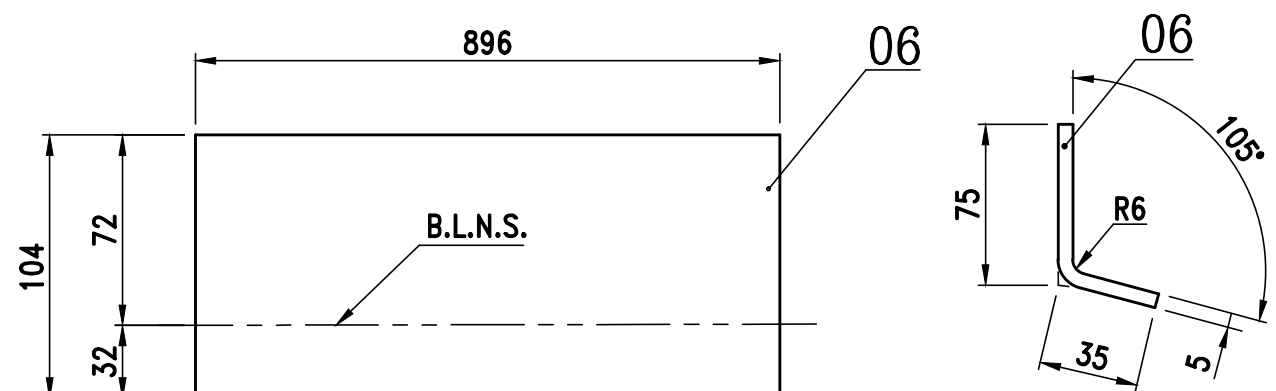
FORMED VIEW



VIEW FROM RIGHT

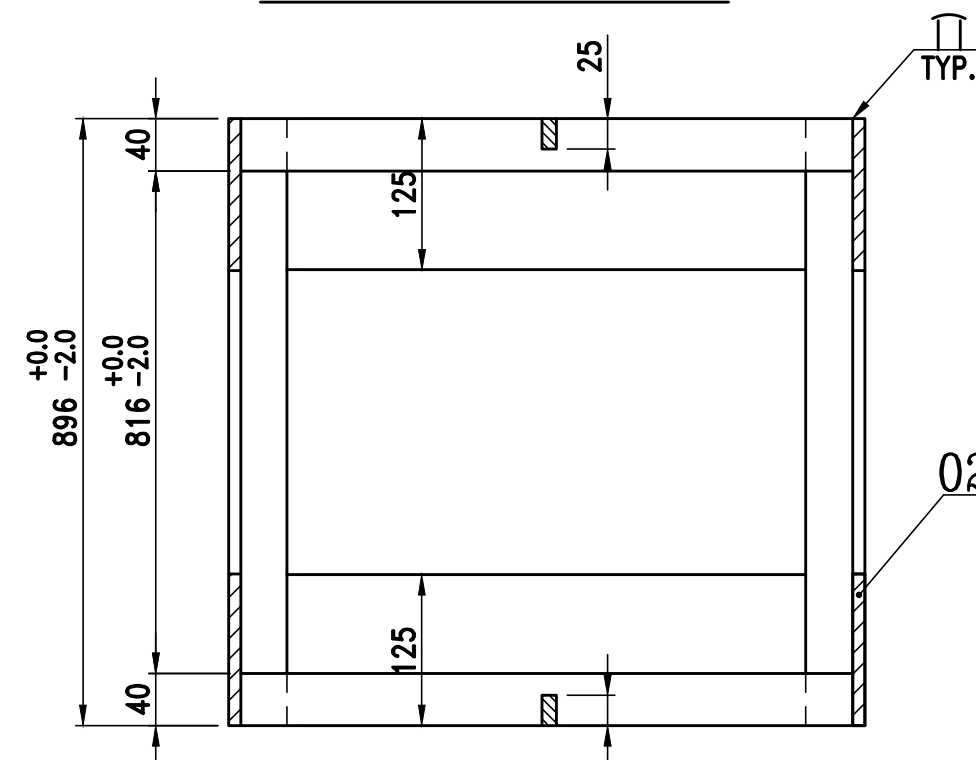


VIEW FROM TOP

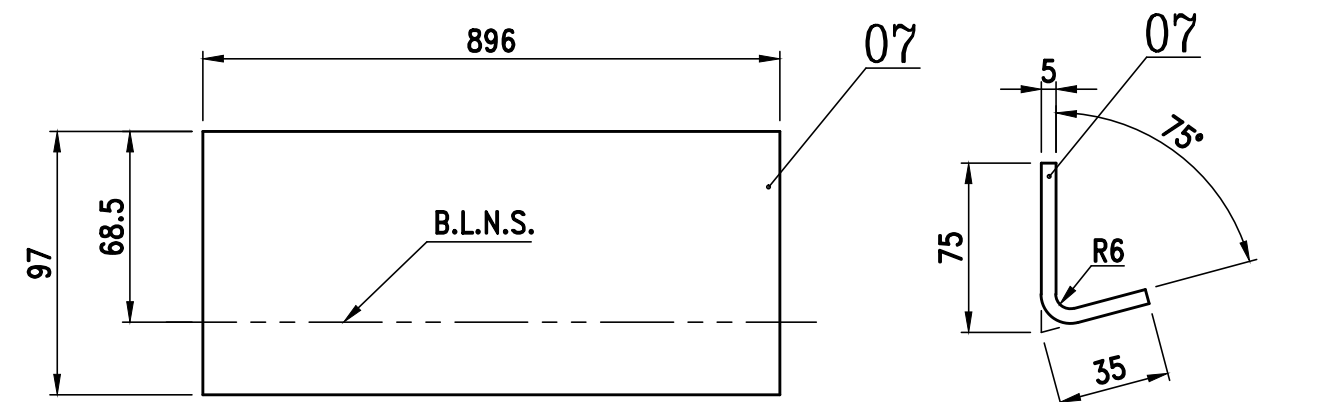


OUTSTRETCHED VIEW

FORMED VIEW



SECTION-AA



OUTSTRETCHED VIEW

FORMED VIEW

VAR NO	ITEM NO	DESCRIPTION	CAT	DRAWING No.	ITEM NO VAR NO	MATL CODE MATL SPECN	A/P/C DI	UNIT QTY	UNIT WT	G.S ZONE
02	11	HE CUTTING LIST SH 0.80X813 DU	4-52-025-00504	158423230813 CORTEN-A	C	407.313	1			
01	11	HE CUTTING LIST SH 0.80X813 DU	4-52-025-00504	158117180813 IS 513 DD		407.313	1			
	10	PL 5X125X469		AA1011808013 IS 2062 GR A		2.300	2			
	09	PL 5X125X450		AA1011808013 IS 2062 GR A		2.210	2			
	08	90DEG COR ANGLE PL 5X102X896		AA1011808013 IS 2062 GR A		3.590	2			
	07	75DEG COR ANGLE PL 5X97X896		AA1011808013 IS 2062 GR A		3.410	1			
	06	105DEG COR ANGLE PL 5X104X896		AA1011808013 IS 2062 GR A		3.660	1			
	05	SPIDER BAR FL 25X12;217		AA1010308505 IS 2062 GR A		0.510	2			
	04	SPIDER BAR FL 25X12;265		AA1010308505 IS 2062 GR A		0.624	4			
	03	HOLDING BAR FL 40X16;511		AA1010308599 IS 2062 GR A		2.570	4			
	02	OUTER END PLATE PL 5X125X709		AA1011808013 IS 2062 GR A		3.480	2			
	01	INNER END PLATE PL 5X125X569		AA1011808013 IS 2062 GR A		2.790	2			

TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT									
BHARAT HEAVY ELECTRICALS LTD., UNIT: BOILER AUXILIARIES PLANT. RANIPET - 632 406.				DRN	NAGARAJAN S	SIGN	DATE	NO. OF VAR.	
				CHD	VRG	Sd..	25.06.82		
				APPD	VRG	Sd..			
DEPT AP				GRADE OF UNTOL DIM	PR: QA: 500	SCALE	WEIGHT (KG).	REF. TO ASSY/OLD DRG.	ITEM NO.
CODE 852						NTS	456.919		
TITLE				CARD CODE				DRAWING NO.	REV
ASSY OF BASKET-E				U 01				2-52-025-00313	01

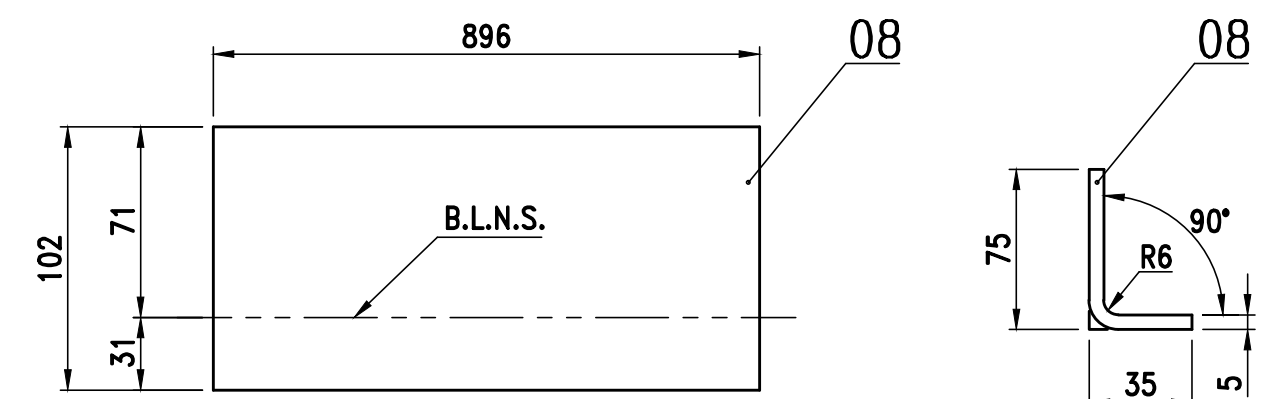
REV	DATE	ALTERED A.K
01	31.03.12	CHECKED RSB
BASKET IMPROVED DESIGN INTRODUCED AND TOTAL WEIGHT WAS 445.950 FOR ITEM- 11, VAR INTRODUCED.		

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FOR PRODUCTION REF.: PR:QA:590 FOR PAINTING REF.: PR:QA:500 FOR UNTOL. DIMS. REF.: APPLICABLE GMS FOR MATL CODE & SPEC

SHOP NOTES:-

- S-1. ASSEMBLE OUTER END PLATES ITEM NO.02, 75° AND 90° CORNER ANGLES BEFORE WELDING TO BASKET.
- S-2. INSTALL ELEMENTS BEFORE WELDING OUTER END PLATE ASSY IN PLACE
- S-3. ALL OUTSIDE WELDS TO BE HALF 'V' EDGE PREPARED, WELDED AND FLUSH GROUND TO ENSURE EASY INSERTION OF BASKETS IN THE ROTOR COMPARTMENTS.
- S-4. PUNCH "BASKET-F" ON THE ASSEMBLY.



OUTSTRETCHED VIEW

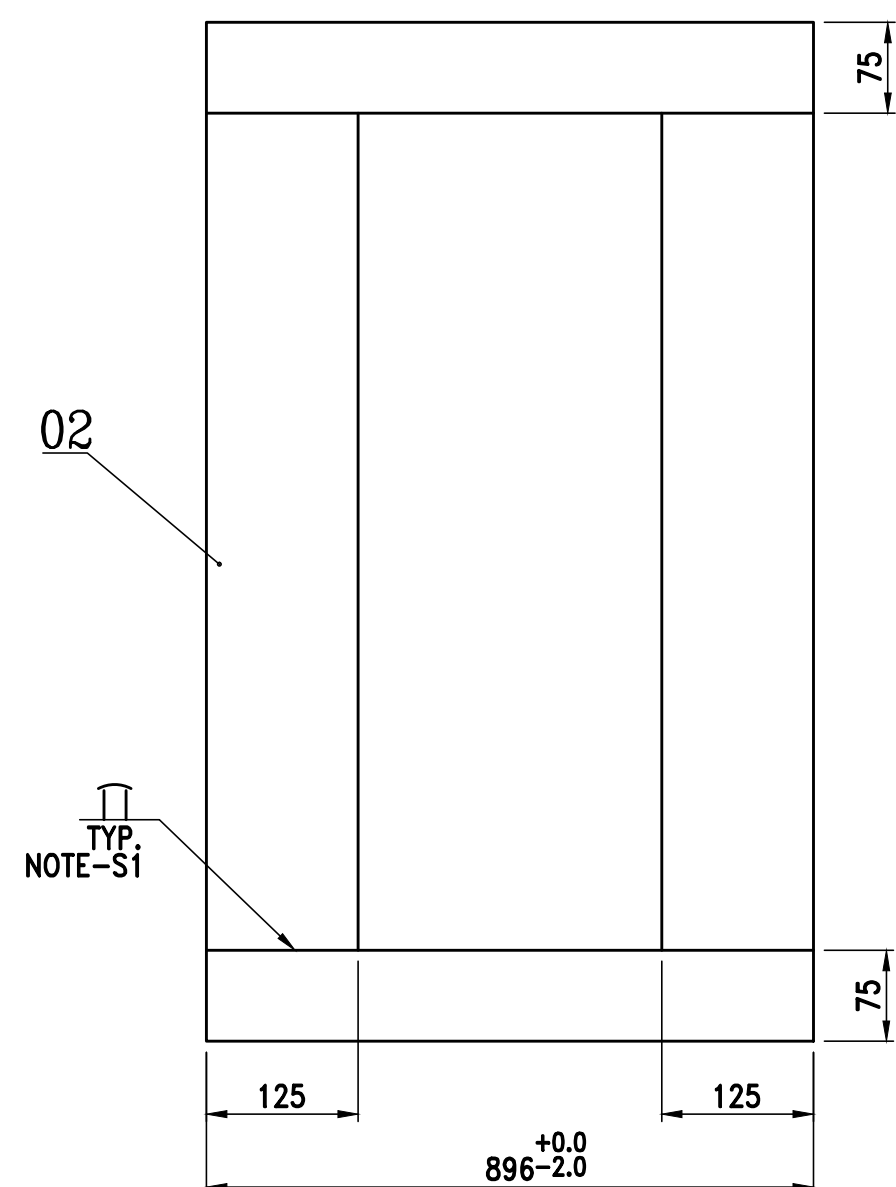
FORMED VIEW

02	11	HE CUTTING LIST SH 0.80X813 DU		4-52-025-00505		158423230813 CORTEN-A	C		478.857 1	
01	11	HE CUTTING LIST SH 0.80X813 DU		4-52-025-00505		158117180813 IS 513 DD			478.857 1	
	10	PL 5X125X466				AA1011808013 IS 2062 GR A			2.290 2	
	09	PL 5X125X447				AA1011808013 IS 2062 GR A			2.190 2	
	08	90DEG COR ANGLE PL 5X102X896				AA1011808013 IS 2062 GR A			3.590 2	
	07	75DEG COR ANGLE PL 5X97X896				AA1011808013 IS 2062 GR A			3.410 1	
	06	105DEG COR ANGLE PL 5X104X896				AA1011808013 IS 2062 GR A			3.660 1	
	05	SPIDER BAR FL 25X12;214				AA1010308505 IS 2062 GR A			0.500 2	
	04	SPIDER BAR FL 25X12;220				AA1010308505 IS 2062 GR A			0.518 6	
	03	HOLDING BAR FL 40X16;508				AA1010308599 IS 2062 GR A			2.550 6	
	02	OUTER END PLATE PL 5X125X850				AA1011808013 IS 2062 GR A			4.170 2	
	01	INNER END PLATE PL 5X125X711				AA1011808013 IS 2062 GR A			3.490 2	
VAR NO	ITEM NO	DESCRIPTION	CAT	DRAWING No.	ITEM NO VAR NO	MATL CODE MATL SPECN	A/P/C DI	UNIT	UNIT WT QTY	GS

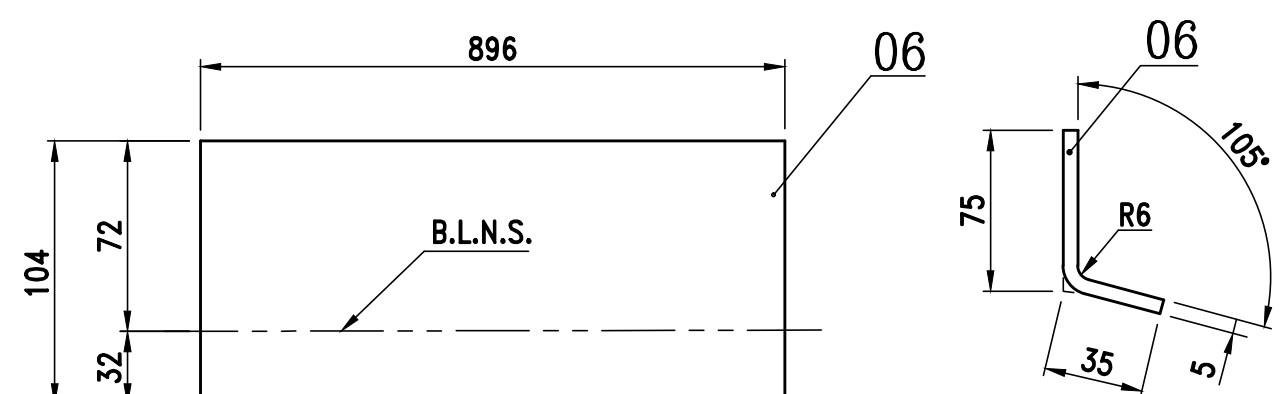
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TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT	
---	--

 BHARAT HEAVY ELECTRICALS LTD., UNIT: BOILER AUXILIARIES PLANT. RANIPET - 632 406.				DRN	NAME	SIGN	DATE	NO. OF VAL	
				CHD	CPS	Sd..	06.05.83	01	
				APPD	PJ	Sd..			
DEPT AP	GRADE OF UNTOL DIM		SCALE	WEIGHT (KG).	REF. TO ASSY/OLD DRG.			ITEM NO.	NO. OF ITEM
CODE 852	PR: QA: 500		NTS	536.795					
TITLE				CARD CODE	DRAWING NO.			REV	
ASSY OF BASKET-F				U 01	2-52-025-00314			01	

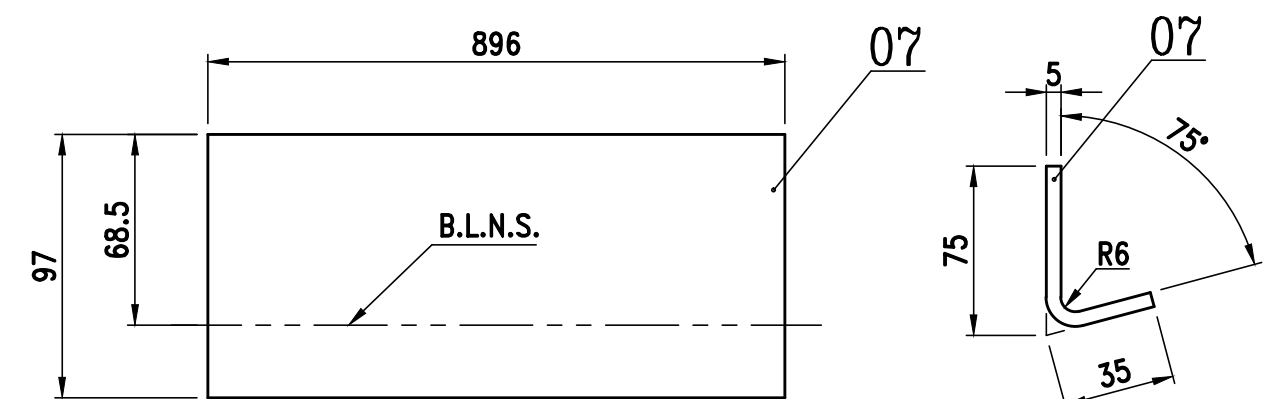


VIEW FROM RIGHT



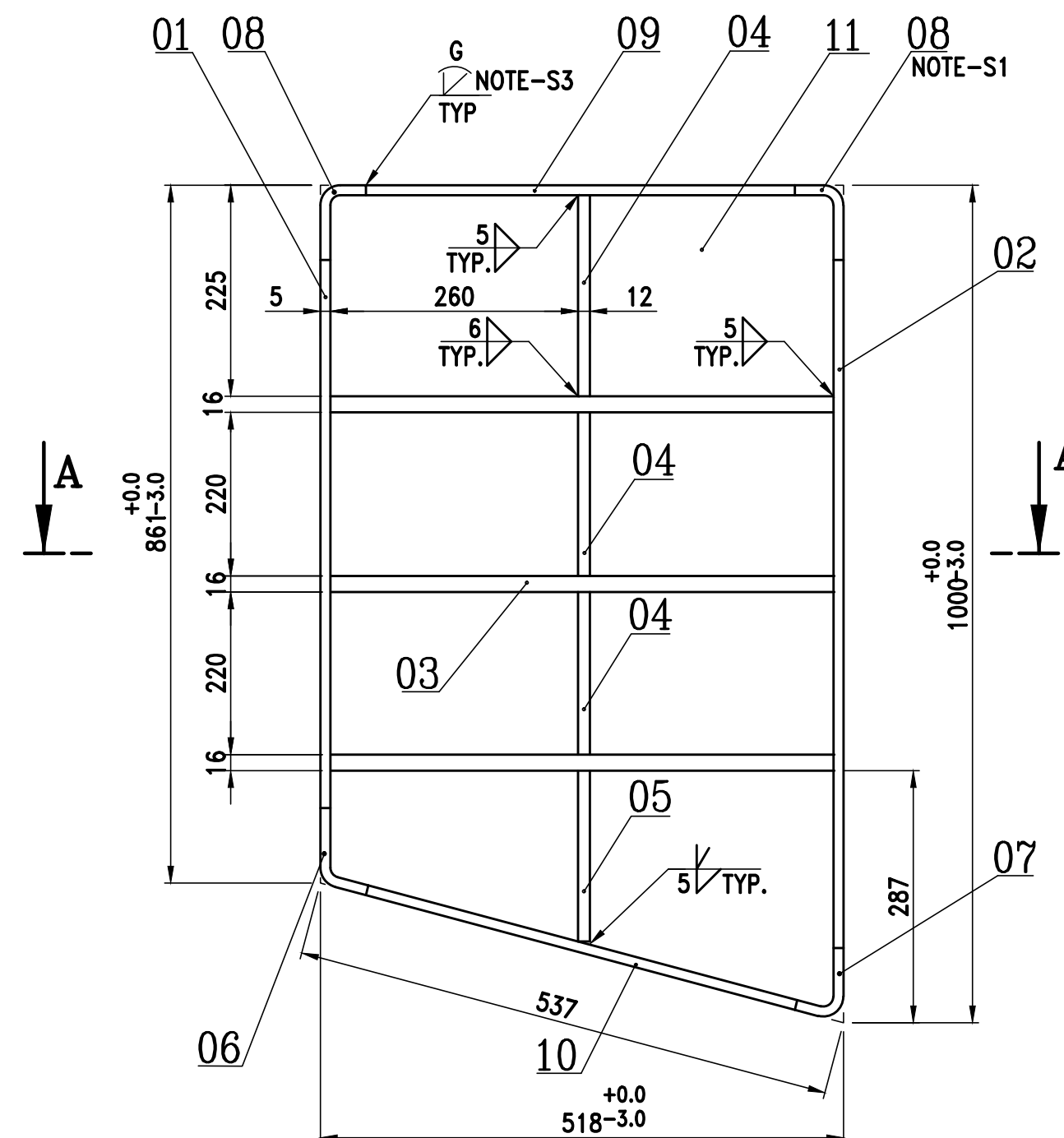
OUTSTRETCHED VIEW

FORMED VIEW

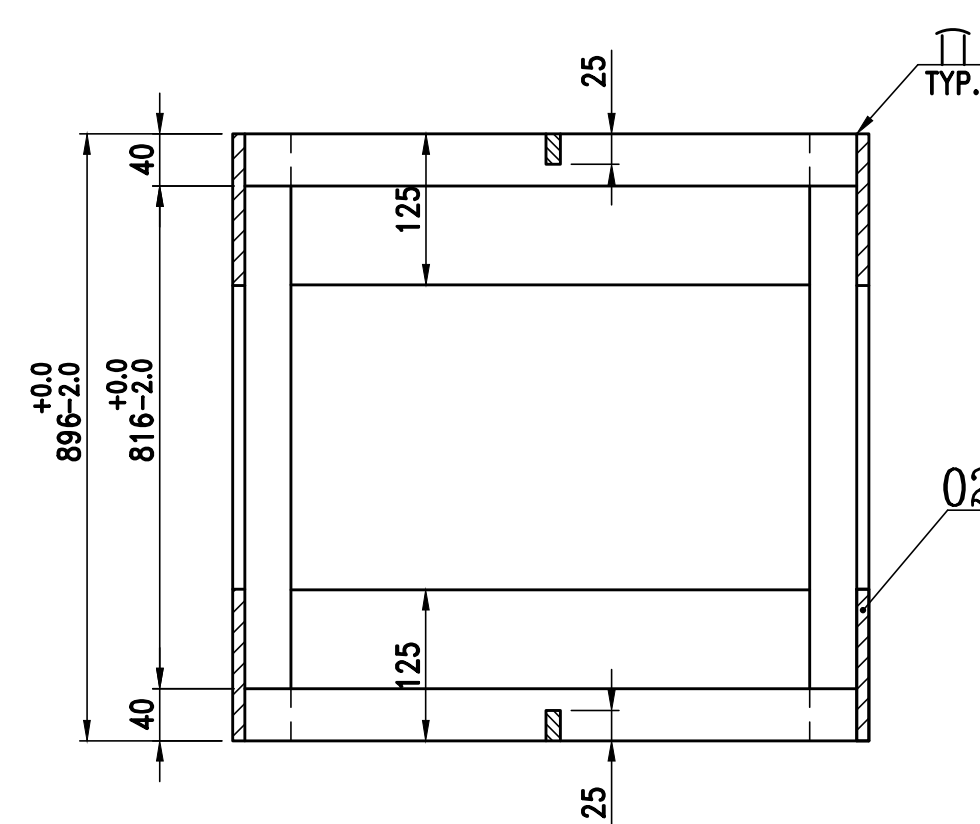


OUTSTRETCHED VIEW

FORMED VIEW



VIEW FROM TOP



SECTION-AA

REV 01	DATE 31.03.12	ALTERED A.K CHECKED RSB
ZONE	BASKET IMPROVED DESIGN INTRODUCED AND TOTAL WEIGHT WAS 527.950 FOR ITEM- 11. VAR INTRODUCED.	

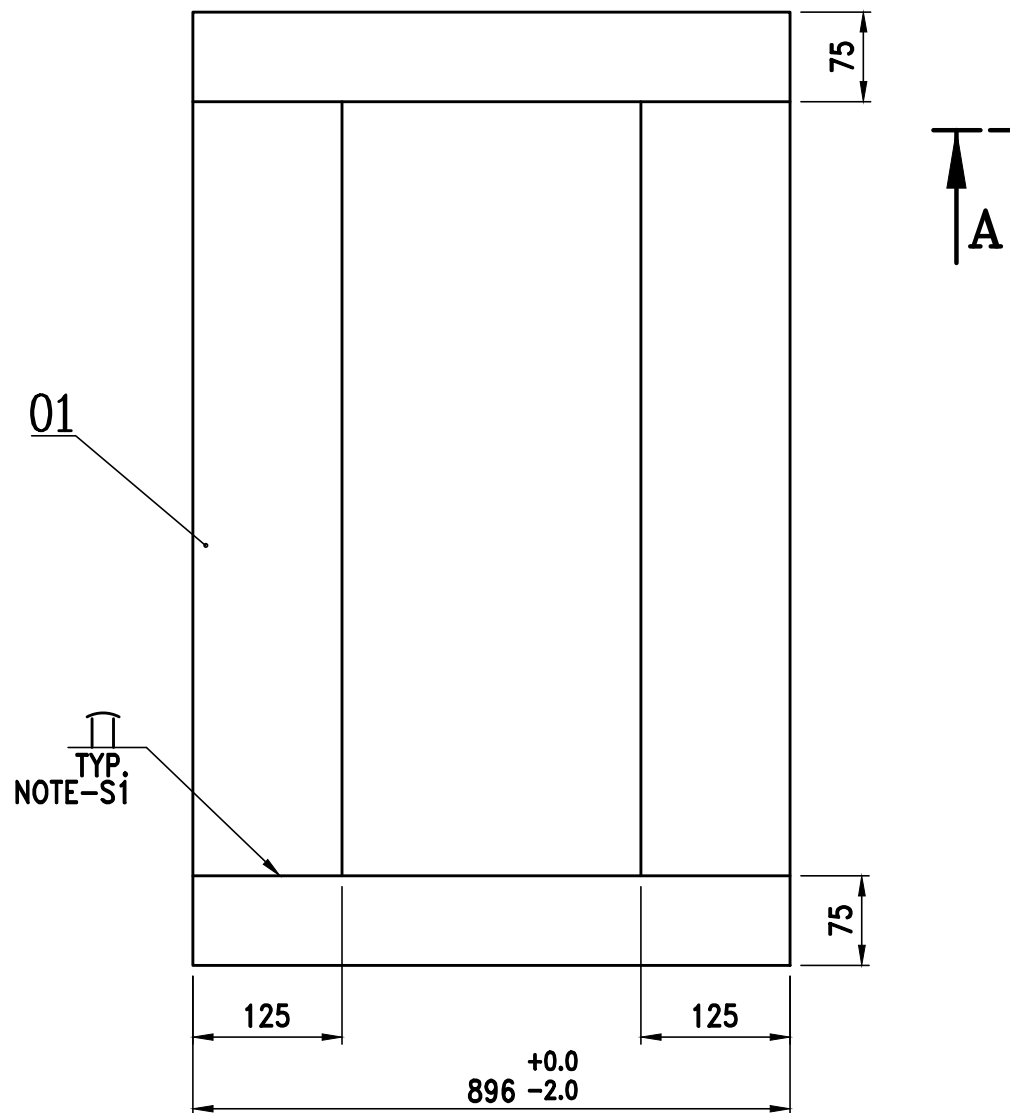
2-52-025-00315
DRAWING NO.

ALL DIMENSIONS ARE IN MILLIMETRES

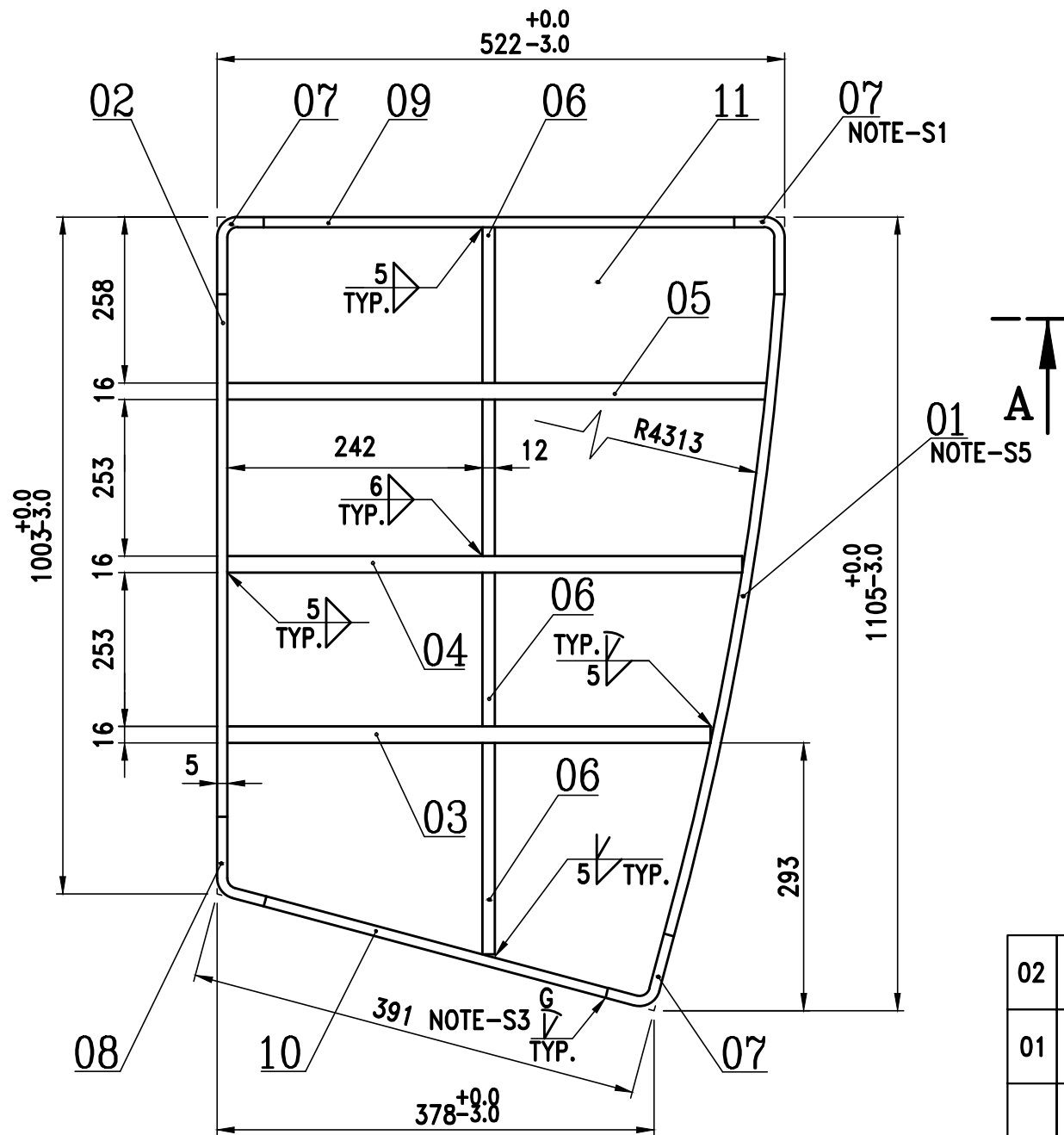
FOR PRODUCTION
REF.: PRQA : 590 FOR PAINTING
REF.: PRQA : 500 FOR UNTOL DIMNS.

SHOP NOTES:-

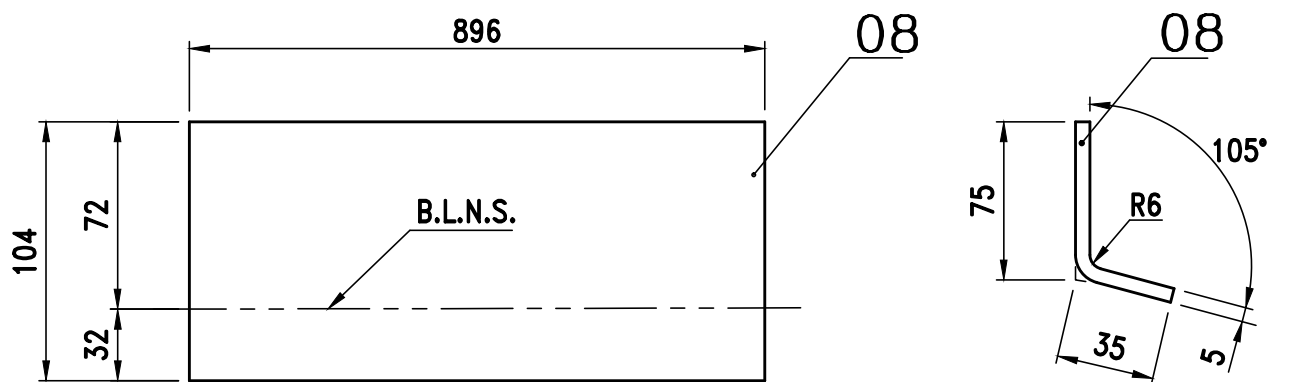
- S-1. ASSEMBLE OUTER END PLATES ITEM NO.01, AND 90° CORNER ANGLES ITEM NO.07 BEFORE WELDING TO BASKET.
S-2. INSTALL ELEMENTS BEFORE WELDING OUTER END PLATE ASSY IN PLACE.
S-3. ALL OUTSIDE WELDS TO BE HALF 'V' EDGE PREPARED, WELDED AND FLUSH GROUND TO ENSURE EASY INSERTION OF BASKETS IN THE ROTOR COMPARTMENTS.
S-4. PUNCH "BASKET-G27" ON THE ASSEMBLY.
S-5. ROLL ITEM NO. 01 TO IR.4313.



VIEW FROM RIGHT

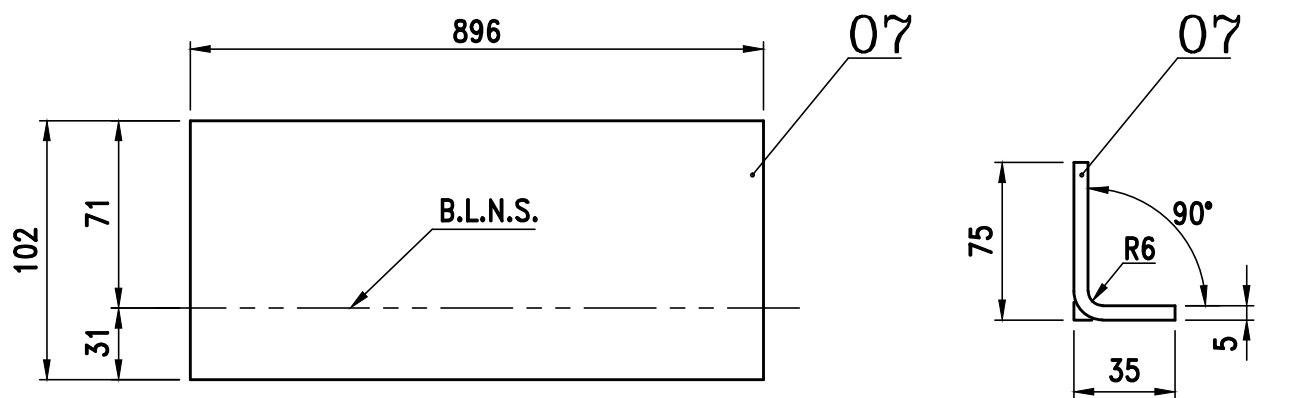


VIEW FROM TOP



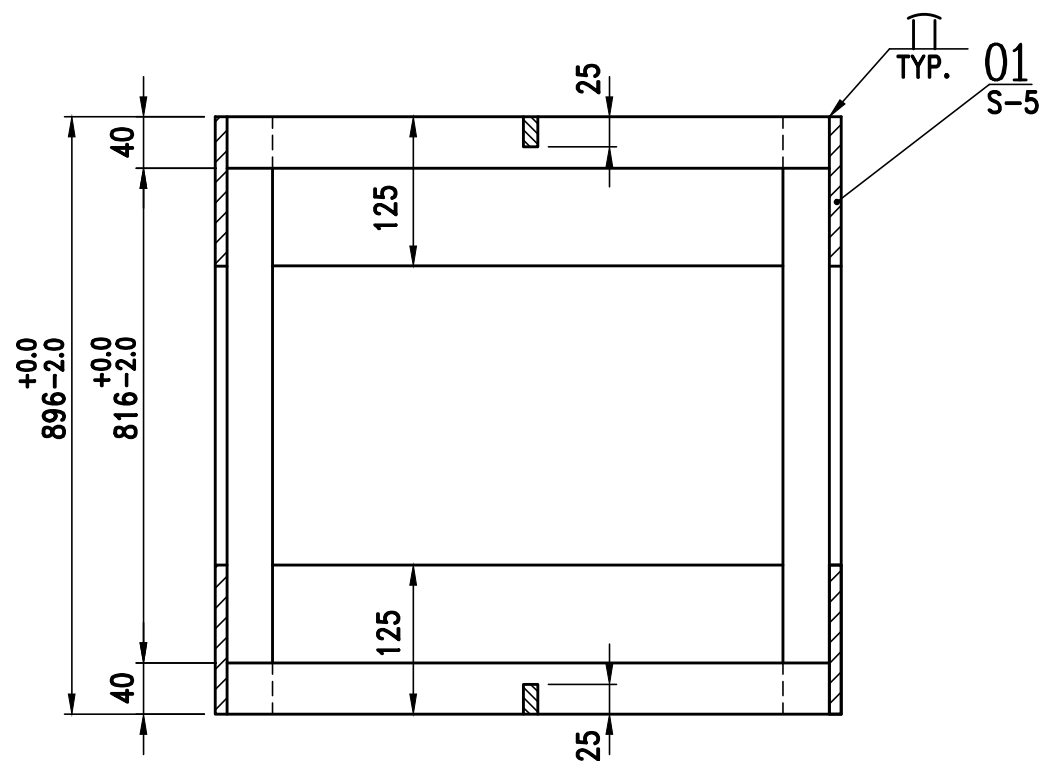
OUTSTRETCHED VIEW

FORMED VIEW



OUTSTRETCHED VIEW

FORMED VIEW



SECTION-AA

REV	DATE	ALTERED A.K	REV	DATE	ALTERED A.K
03	03.05.14	CHECKED RSB	02	31.03.12	CHECKED RSB
ITEM-07 & 08 DESC CORRECTED. AND TOTAL WEIGHT WAS 561.258			BASKET IMPROVED DESIGN INTRODUCED AND TOTAL WEIGHT WAS 552.490 FOR ITEM- 11, VAR INTRODUCED.		

02	11	HE CUTTING LIST SH 0.80X813 DU		4-52-025-02351		158423230813	C		500.808		
						CORTEN-A			1		
01	11	HE CUTTING LIST SH 0.80X813 DU		4-52-025-02351		158117180813			500.808		
						IS 513 DD			1		
	10	PL.5x125x320				AA1011808013			1.570		
						IS 2062 Gr A			2		
	09	PL.5x125x451				AA1011808013			2.210		
						IS 2062 Gr A			2		
	08	105DEG.COR.ANGLE PL.5x104x896				AA1011808013			3.657		
						IS 2062 Gr A			1		
	07	90 DEG.COR.ANGLE PL.5x102x896				AA1011808013			3.587		
						IS 2062 Gr A			3		
	06	SPIDER BAR F25x12; 253				AA1010308505			0.590		
						IS 2062 Gr A			8		
	05	HOLDING BAR F40x16; 503				AA1010308599			2.527		
						IS 2062 Gr A			2		
	04	HOLDING BAR F40x16; 478				AA1010308599			2.400		
						IS 2062 Gr A			2		
	03	HOLDING BAR F40x16; 435				AA1010308599			2.185		
						IS 2062 Gr A			2		
	02	INNER END PLATE PL.5x125x853				AA1011808013			4.185		
						IS 2062 Gr A			2		
	01	OUTER END PLATE PL.5x125x966				AA1011808013			4.739		
						IS 2062 Gr A			2		
VAR NO	ITEM NO	DESCRIPTION	CAT	DRAWING No.	ITEM NO VAR NO	MATL CODE	A/P/C	UNIT	UNIT WT	G.S	ZONE
						MATL SPECN	A/P/C	DI	QTY		

TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT									
BHARAT HEAVY ELECTRICALS LTD., UNIT: BOILER AUXILIARIES PLANT. RANIPET - 632 406.				DRN	NAGARAJAN S	SIGN	DATE	NO.OF VAR.	
				CHD	VRG	Sd..			
				APPD	VRG	Sd..			
DEPT AP	GRADE OF UNTOL.DIM	SCALE	WEIGHT (KG).	REF. TO ASSY/OLD DRG.			ITEM NO.	NO. OF TIMES	
CODE 852	PR: QA: 500	NTS	559.578	----					
TITLE						CARD CODE	DRAWING NO.	REV	
ASSY OF BASKET-G27						U 01	2-52-025-00315	03	

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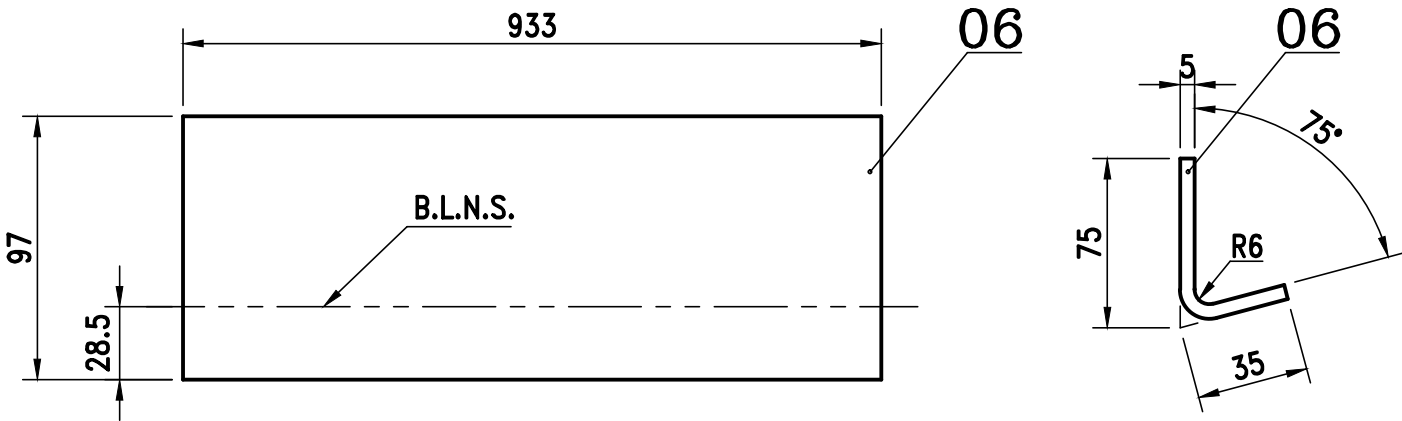
69900-010-79-2
DRAWING NO.

ALL DIMENSIONS ARE IN MILLIMETRES

FOR PRODUCTION
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REF.: PR:QA:500 FOR UNTOL. DIMS.
REF.: APPLICABLE GMS FOR MATL CODE & SPEC

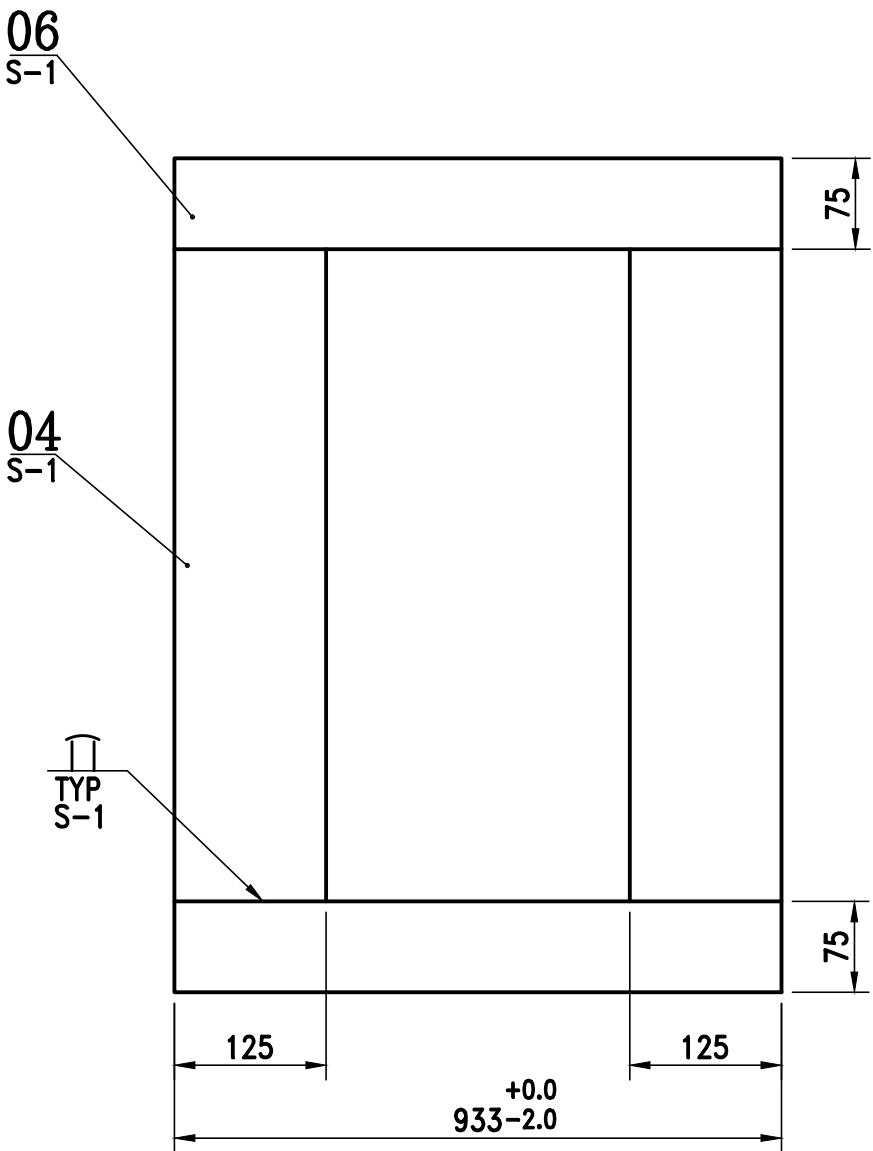
SHOP NOTES:-

- S-1. ASSEMBLE OUTER END PLATES ITEM NO.04, AND 75° CORNER ANGLES BEFORE WELDING TO BASKET.
S-2. INSTALL ELEMENTS BEFORE WELDING OUTER END PLATE ASSY IN PLACE
S-3. ALL OUTSIDE WELDS TO BE HALF 'V' EDGE PREPARED, WELDED AND FLUSH GROUND TO ENSURE EASY INSERTION OF BASKETS IN THE ROTOR COMPARTMENTS.
S-4. PUNCH "BASKET-AB" ON THE ASSEMBLY.

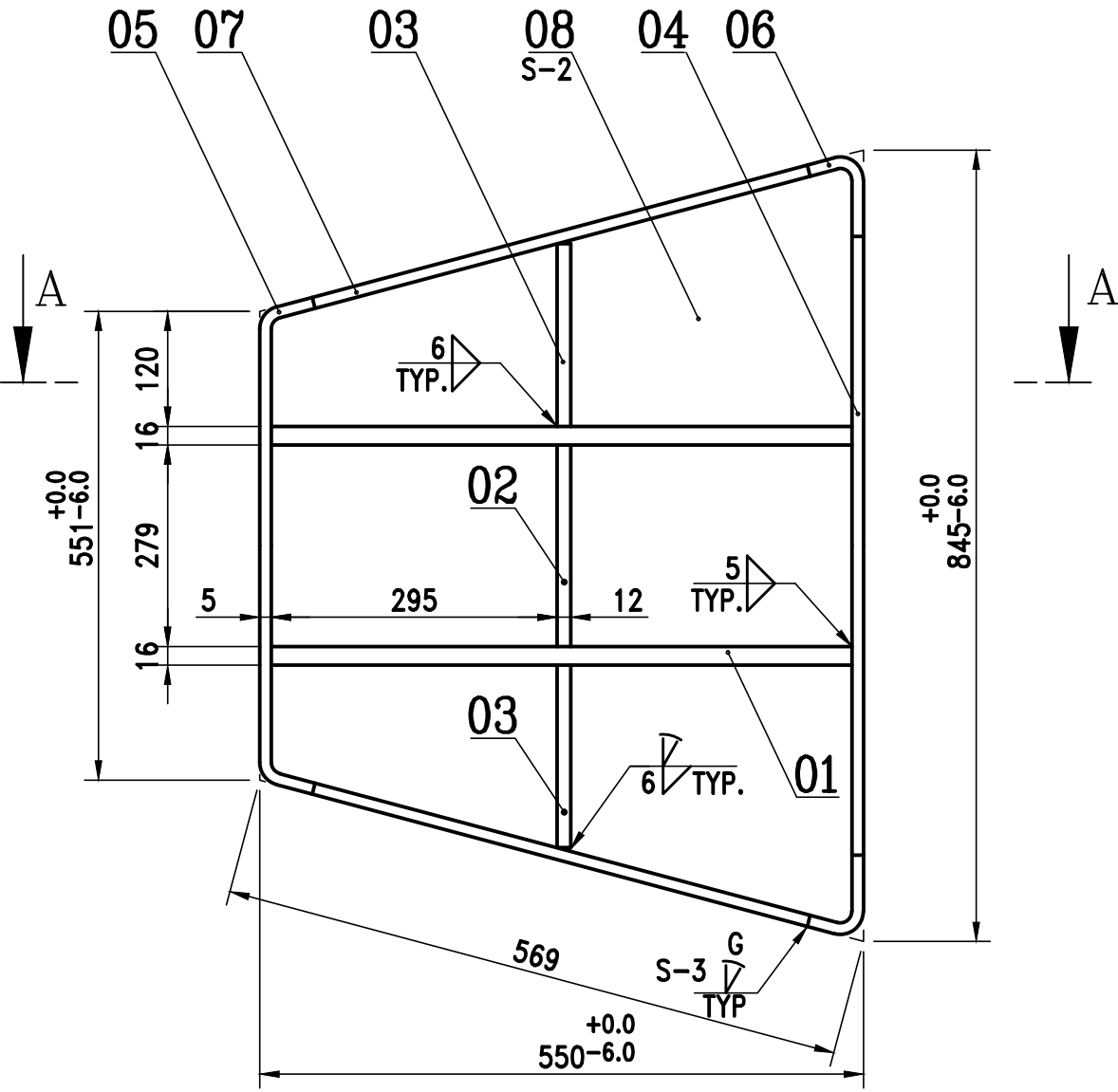


OUTSTRETCHED VIEW

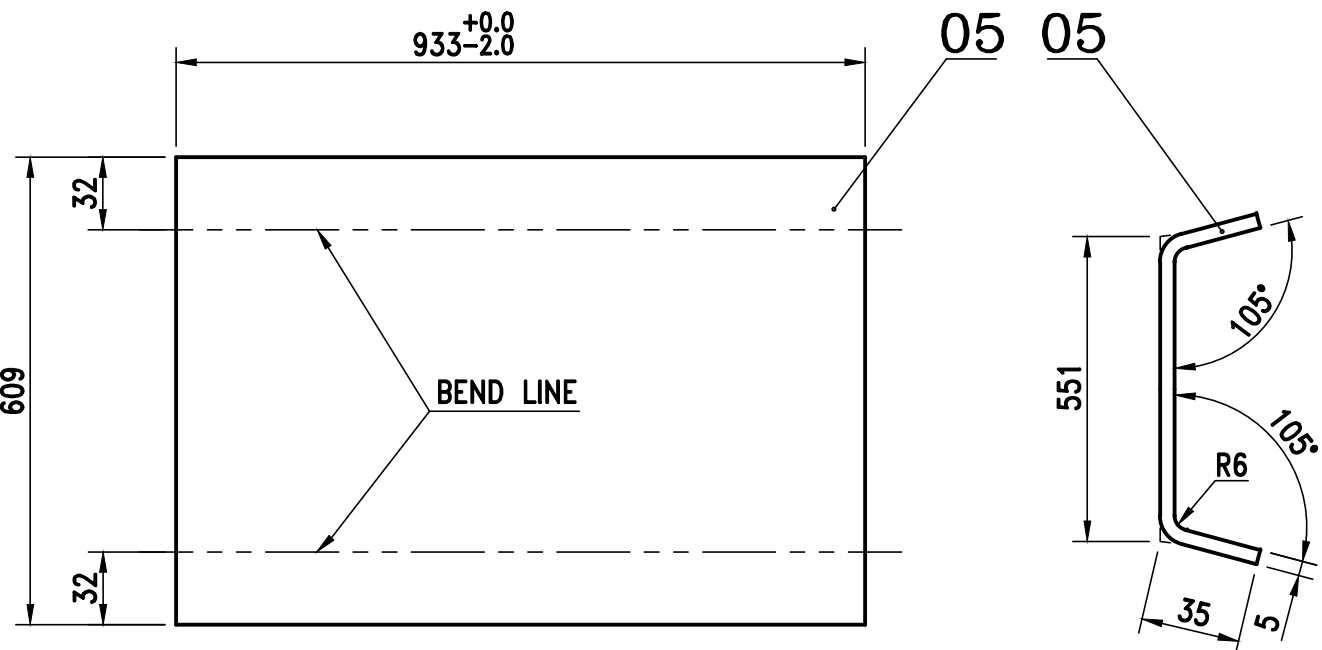
FORMED VIEW



VIEW FROM RIGHT

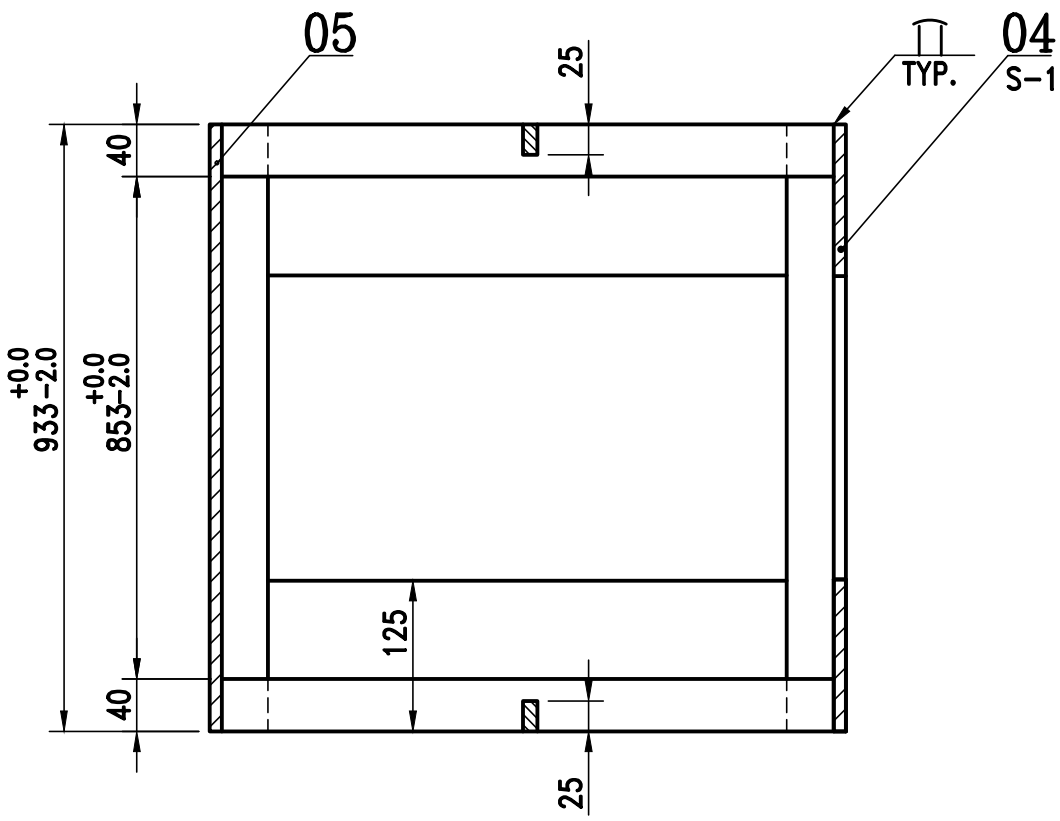


VIEW FROM TOP



OUTSTRETCHED VIEW

FORMED VIEW



SECTION-AA

08	HE CUTTING LIST SH 0.63X850 DU	4-52-010-00944	158117150850	316.200
07	PL 5X125X498		IS 513 DD	1
06	75DEG COR ANGLE PL 5X97X933		AA1011808013	2.440
05	INNER END PLATE PL 5X609X933		IS 2062 GR A	4
04	OUTER END PLATE PL 5X125X695		AA1011808013	3.550
03	SPIDER BAR FL 25X12;195		IS 2062 GR A	2
02	SPIDER BAR FL 25X12;279		AA1011808013	22.300
01	HOLDING BAR FL 40X16;540		IS 2062 GR A	1
			AA1011808013	3.410
			IS 2062 GR A	2
			AA1010308505	0.520
			IS 2062 GR A	4
			AA1010308505	0.546
			IS 2062 GR A	2
			AA1010308599	2.708
			IS 2062 GR A	4

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											
					BHARAT HEAVY ELECTRICALS LTD., UNIT: BOILER AUXILIARIES PLANT. RANIPET - 632 406.		DRN	NAME C P SANKAR		SIGN Sd..	DATE 11.02.82	NO.OF VAR.
					CHD	N MANOHAR		Sd..				
					APPD	N MANOHAR		Sd..				
ED	DEPT AP	GRADE OF UNTOL DIM			SCALE NTS	WEIGHT (KG). 376.184	REF. TO ASSY/OLD DRG.				ITEM NO.	NO. OF ITEMS
	CODE 852	PR: QA: 500	TITLE ASSY OF BASKET-AB				CARD CODE U 01	DRAWING NO. 2-52-010-00539				REV 04

REV	DATE	ALTERED A.K
04	01.12.11	CHECKED RSB
ZONE	BASKET IMPROVED DESIGN INTRODUCED AND TOTAL WEIGHT WAS 373.140	

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.

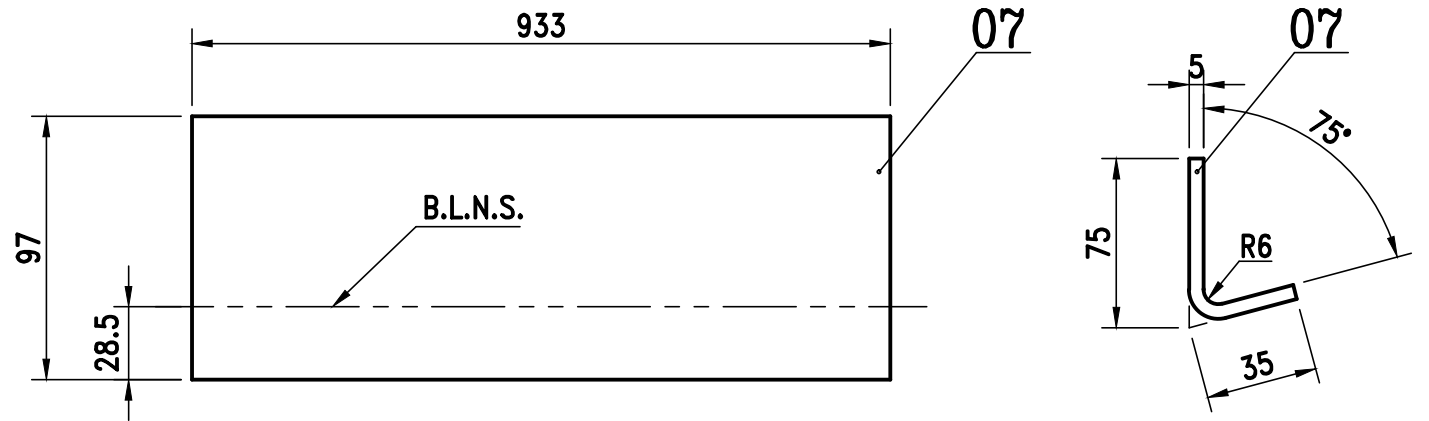
2-52-010-00540
DRAWING NO.

ALL DIMENSIONS ARE IN MILLIMETRES

FOR PRODUCTION
REF.: PR:QA:590 FOR PAINTING
REF.: PR:QA:500 FOR UNTOL. DIMS.
REF.: APPLICABLE GMS FOR MATL CODE & SPEC

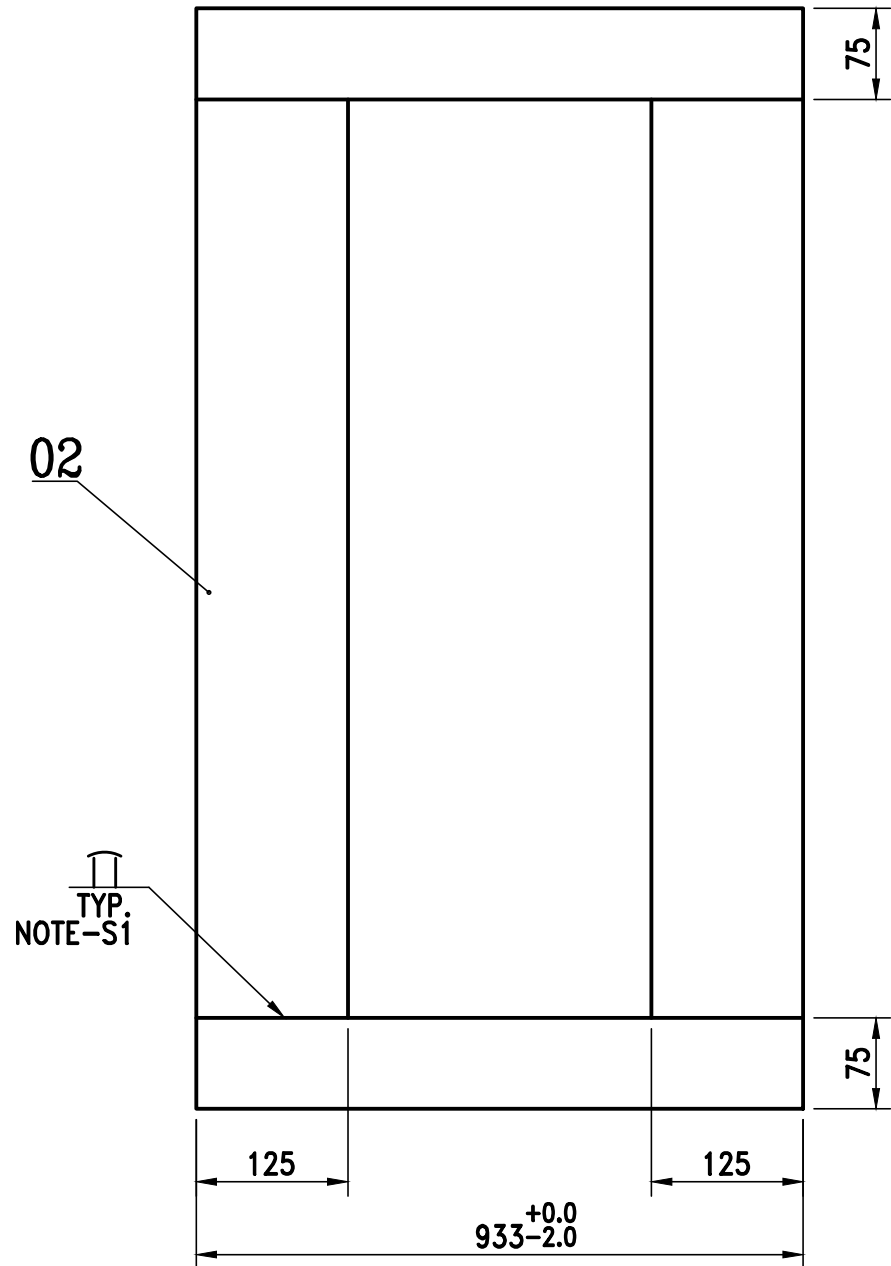
SHOP NOTES:-

- S-1. ASSEMBLE OUTER END PLATES ITEM NO.02 AND 75° CORNER ANGLES BEFORE WELDING TO BASKET.
S-2. INSTALL ELEMENTS BEFORE WELDING OUTER END PLATE ASSY IN PLACE
S-3. ALL OUTSIDE WELDS TO BE HALF 'V' EDGE PREPARED, WELDED AND FLUSH GROUND TO ENSURE EASY INSERTION OF BASKETS IN THE ROTOR COMPARTMENTS.
S-4. PUNCH "BASKET-C" ON THE ASSEMBLY.

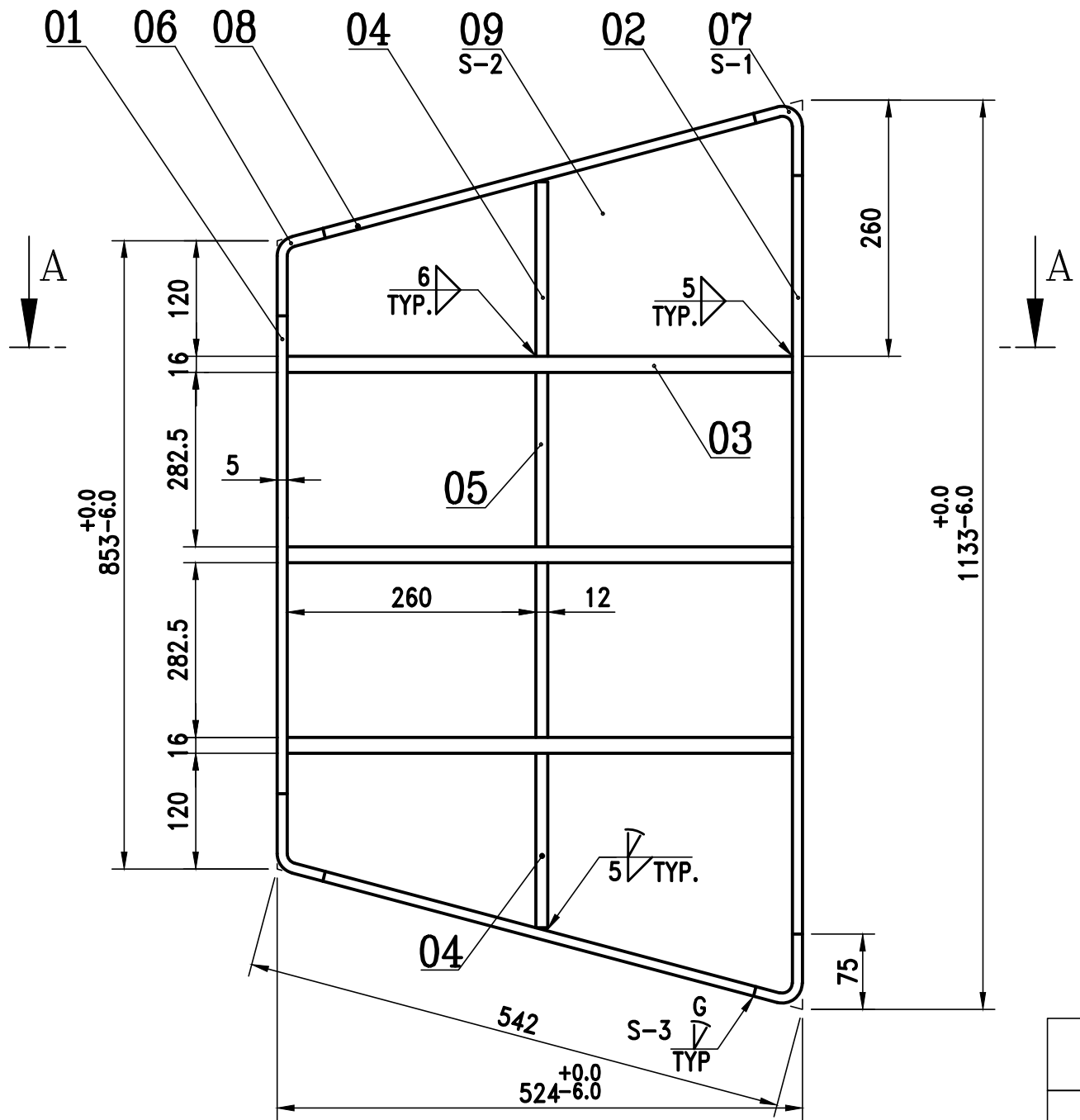


OUTSTRETCHED VIEW

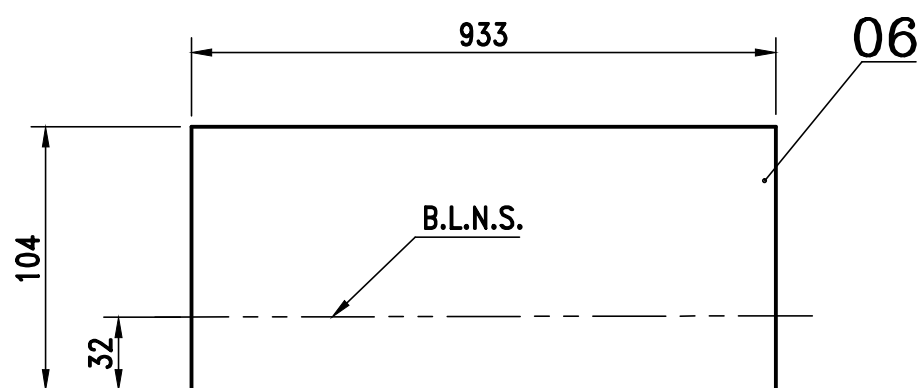
FORMED VIEW



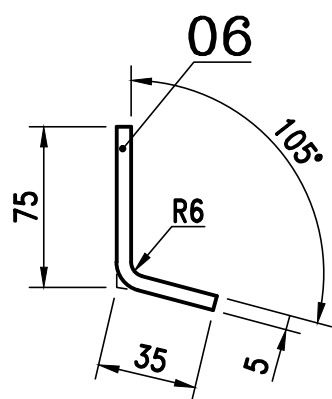
VIEW FROM RIGHT



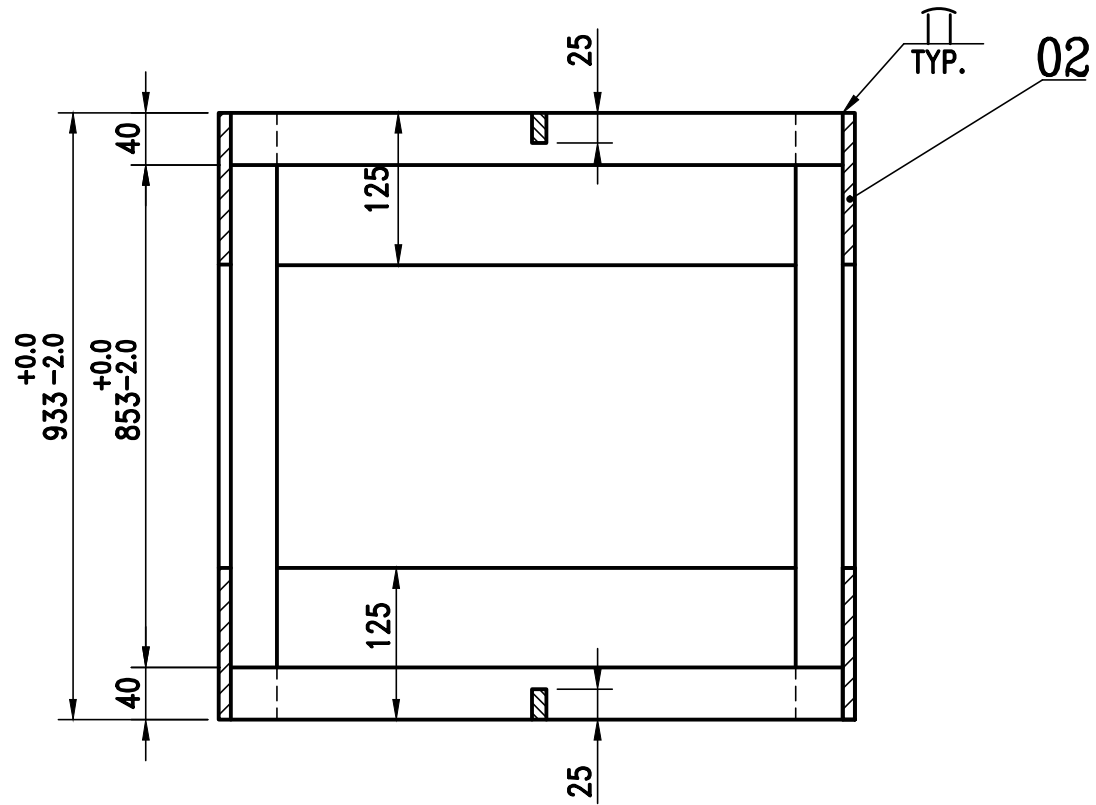
VIEW FROM TOP



OUTSTRETCHED VIEW



FORMED VIEW

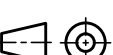


SECTION-AA

09	HE CUTTING LIST SH 0.63X850 DU	4-52-010-00945	158117150850 IS 513 DD	429.250	1
08	PL 5X125X471		AA1011808013 IS 2062 GR A	2.310	4
07	75DEG COR ANGLE PL 5X97X933		AA1011808013 IS 2062 GR A	3.550	2
06	105DEG COR ANGLE PL 5X104X933		AA1011808013 IS 2062 GR A	3.810	2
05	SPIDER BAR FL 25X12;282		AA1010308505 IS 2062 GR A	0.664	4
04	SPIDER BAR FL 25X12;185		AA1010308505 IS 2062 GR A	0.435	4
03	HOLDING BAR FL 40X16;514		AA1010308599 IS 2062 GR A	2.582	6
02	OUTER END PLATE PL 5X125X983		AA1011808013 IS 2062 GR A	4.892	2
01	INNER END PLATE PL 5X125X703		AA1011808013 IS 2062 GR A	3.513	2

VAR NO	ITEM NO	DESCRIPTION	CAT	DRAWING No.	ITEM NO VAR NO	MATL CODE	A/P/C	UNIT DI	UNIT WT QTY	GS	ZONE
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TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT														
 BHARAT HEAVY ELECTRICALS LTD., UNIT: BOILER AUXILIARIES PLANT. RANIPET - 632 406.						DRN	NAME C P SANKAR		SIGN Sd..		DATE 11.02.82	NO. OF VAR.		
						CHD	N MANOHAR		Sd..					
						APPD	N MANOHAR		Sd..					
DEPT AP		GRADE OF UNTOL DIM PR QA: 500				SCALE NTS		WEIGHT (KG). 489.908		REF. TO ASSY/OLD DRG.			ITEM NO.	NO. OF ITEMS
CODE 852														
TITLE ASSY OF BASKET-C								CARD CODE U 01		DRAWING NO. 2-52-010-00540			REV 04	

REV	DATE	ALTERED A.K
04	01.12.11	CHECKED RSB
ZONE	BASKET IMPROVED DESIGN INTRODUCED AND TOTAL WEIGHT WAS 486.430	

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.

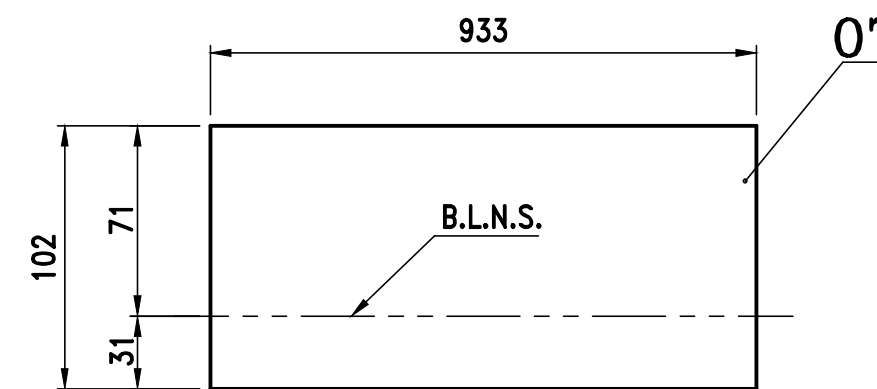
2-52-010-00541
DRAWING NO.

ALL DIMENSIONS ARE IN MILLIMETRES

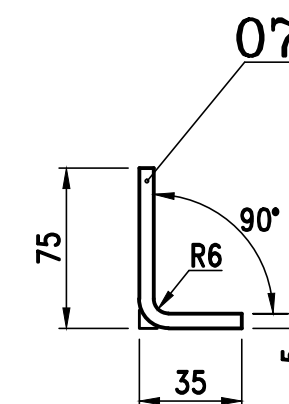
FOR PRODUCTION
REF.: PR:QA:590 FOR PAINTING
REF.: PR:QA:500 FOR UNTOL. DIMS.
REF.: APPLICABLE GMS FOR MATL CODE & SPEC

SHOP NOTES:-

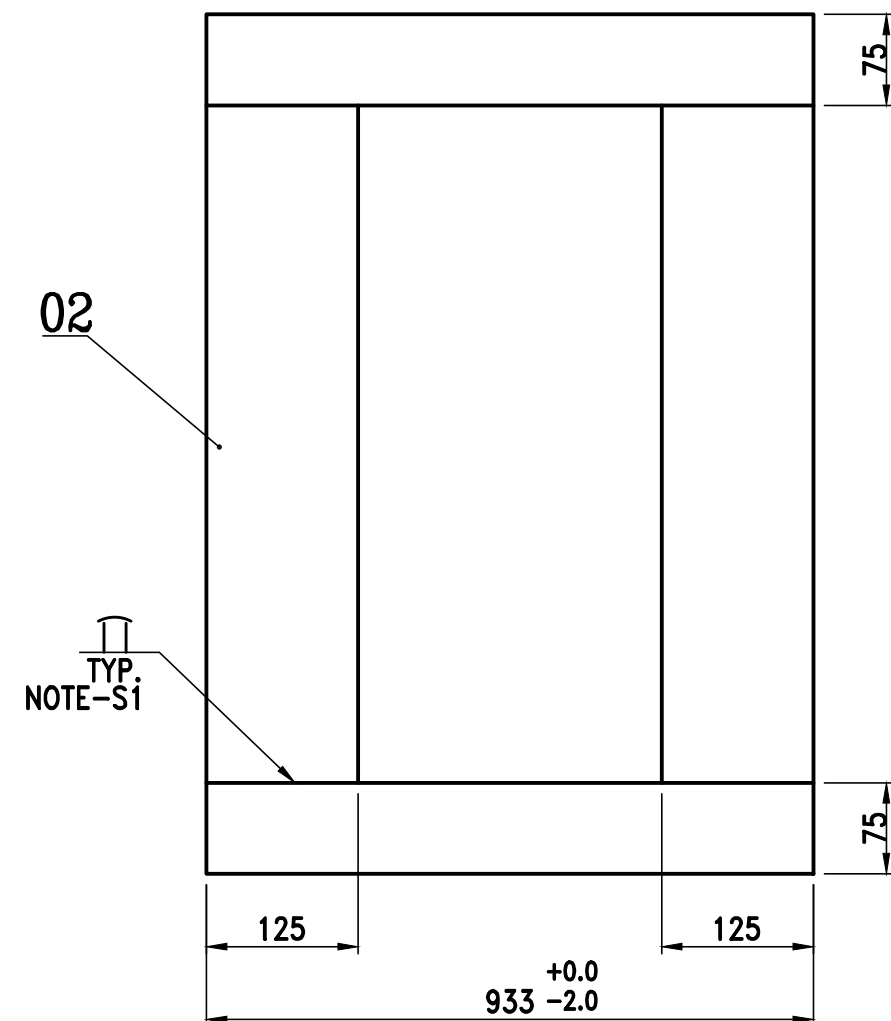
- S-1. ASSEMBLE OUTER END PLATES ITEM NO.02, 75° AND 90° CORNER ANGLES BEFORE WELDING TO BASKET.
- S-2. INSTALL ELEMENTS BEFORE WELDING OUTER END PLATE ASSY IN PLACE
- S-3. ALL OUTSIDE WELDS TO BE HALF 'V' EDGE PREPARED, WELDED AND FLUSH GROUND TO ENSURE EASY INSERTION OF BASKETS IN THE ROTOR COMPARTMENTS.
- S-4. PUNCH "BASKET-D" ON THE ASSEMBLY.



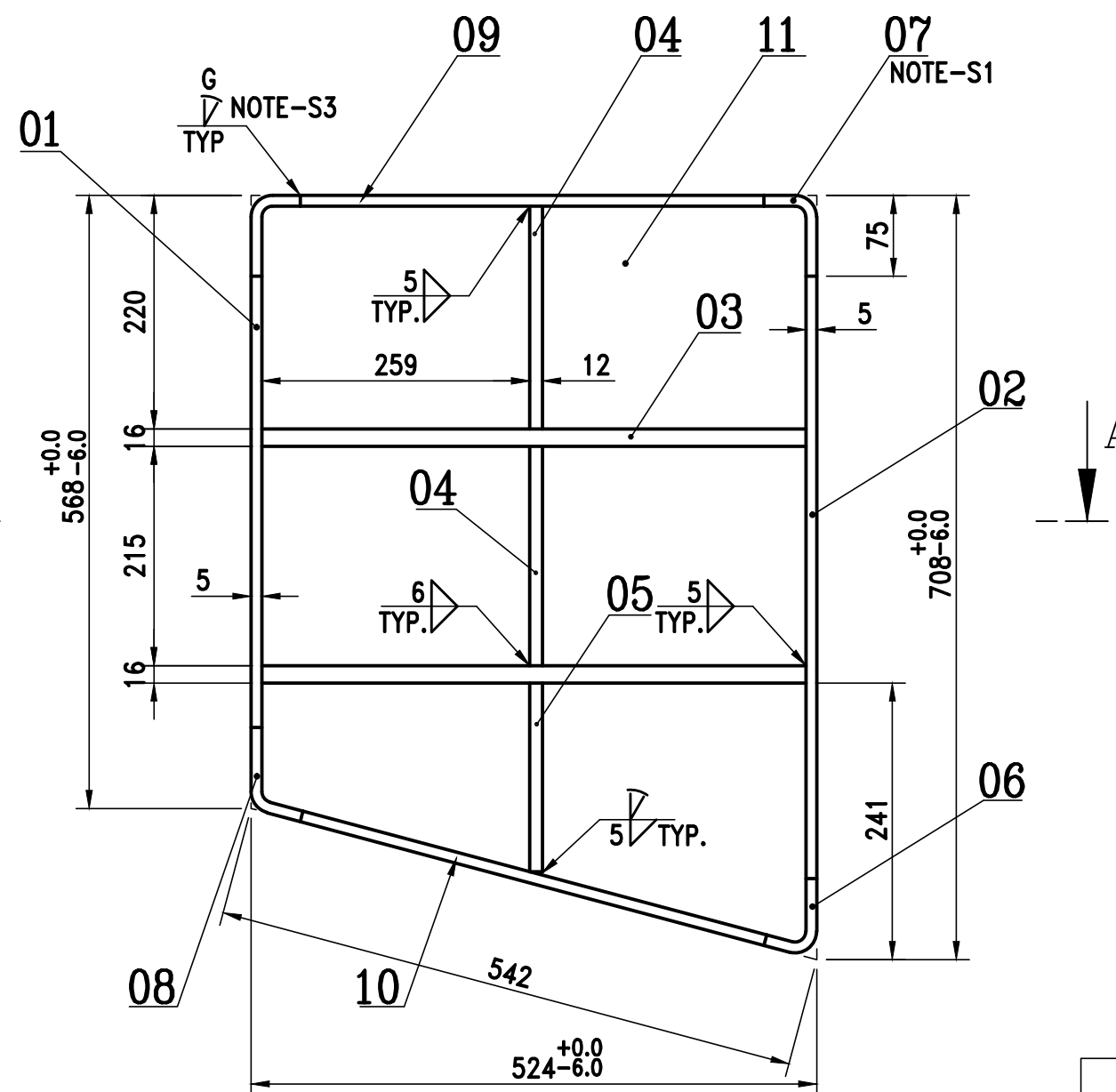
OUTSTRETCHED VIEW



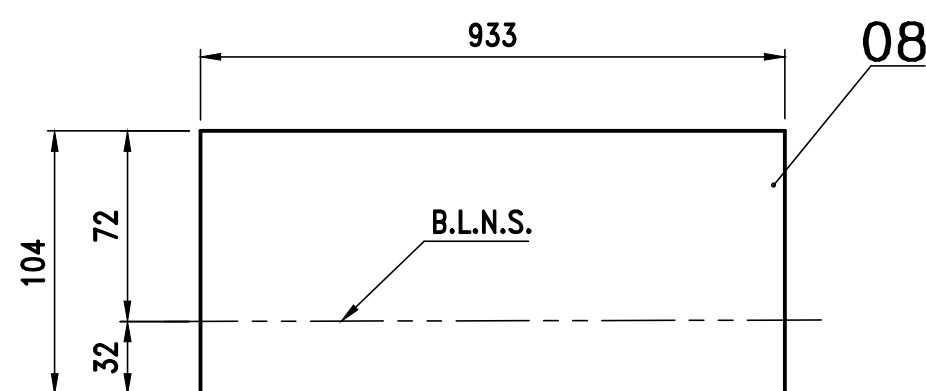
FORMED VIEW



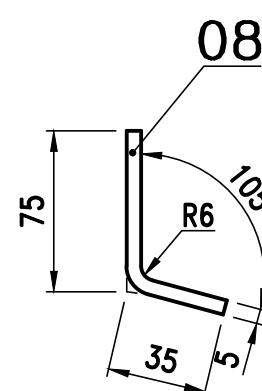
VIEW FROM RIGHT



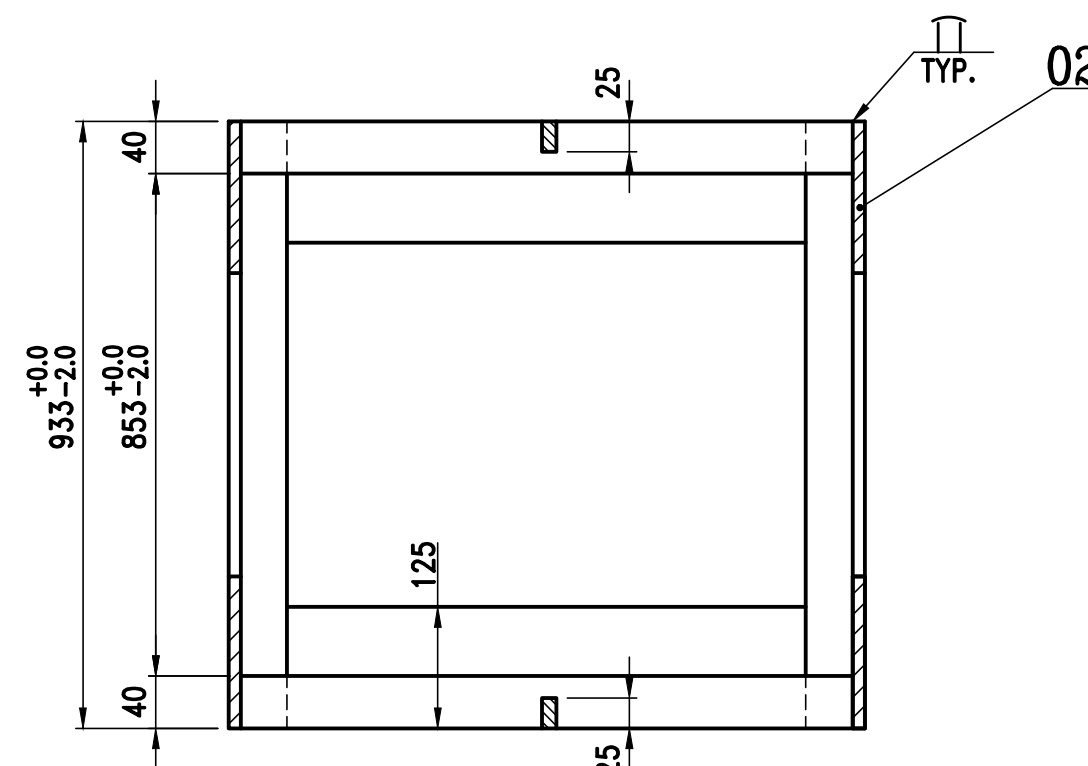
VIEW FROM TOP



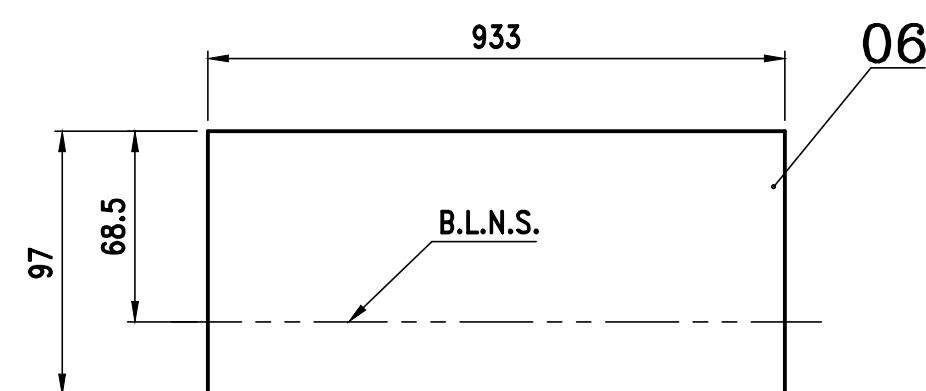
OUTSTRETCHED VIEW



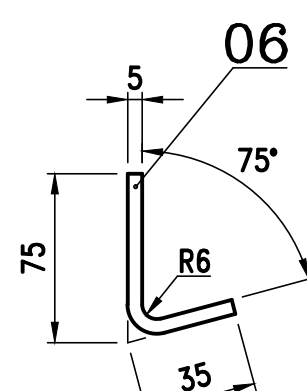
FORMED VIEW



SECTION-AA



OUTSTRETCHED VIEW



FORMED VIEW

11	HE CUTTING LIST SH 0.63X850 DU	4-52-010-00946	158117150850	274.550
			IS 513 DD	1
10	PL 5X125X471		AA1011808013	2.310
			IS 2062 GR A	2
09	PL 5X125X453		AA1011808013	2.220
			IS 2062 GR A	2
08	105DEG COR ANG PL 5X104X933		AA1011808013	3.810
			IS 2062 GR A	1
07	90DEG COR ANGL PL 5X102X933		AA1011808013	3.735
			IS 2062 GR A	2
06	75DEG COR ANGLE PL 5X97X933		AA1011808013	3.550
			IS 2062 GR A	1
05	SPIDER BAR FL 25X12;167		AA1010308505	0.394
			IS 2062 GR A	2
04	SPIDER BAR FL 25X12;215		AA1010308505	0.506
			IS 2062 GR A	4
03	HOLDING BAR FL 40X16;514		AA1010308599	2.580
			IS 2062 GR A	4
02	OUTER END PLATE PL 5X125X558		AA1011808013	2.740
			IS 2062 GR A	2
01	INNER END PLATE PL 5X125X418		AA1011808013	2.050
			IS 2062 GR A	2

VAR NO	ITEM NO	DESCRIPTION	CAT	DRAWING No.	ITEM NO VAR NO	MATL CODE	A/P/C	UNIT	UNIT WT	GS	ZONE
						MATL SPECN		DI	QTY		

TYPE OF PRODUCT
OR NAME OF
CUSTOMER/PROJECT



BHARAT HEAVY ELECTRICALS LTD.,
UNIT: BOILER AUXILIARIES PLANT.
RANIPET - 632 406.

DRN	NAME	SIGN	DATE	NO. OF VAR.
CHD	C P SANKAR	Sd..	11.02.82	
APPD	N MANOHAR	Sd..		

DEPT AP	GRADE OF UNTOL DIM PR: QA: 500	SCALE NTS	WEIGHT (KG). 321.152	REF. TO ASSY/OLD DRG.	ITEM NO.	NO. OF ITEMS
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ASSY OF BASKET-D

CARD CODE U 01	DRAWING NO. 2-52-010-00541	REV 04
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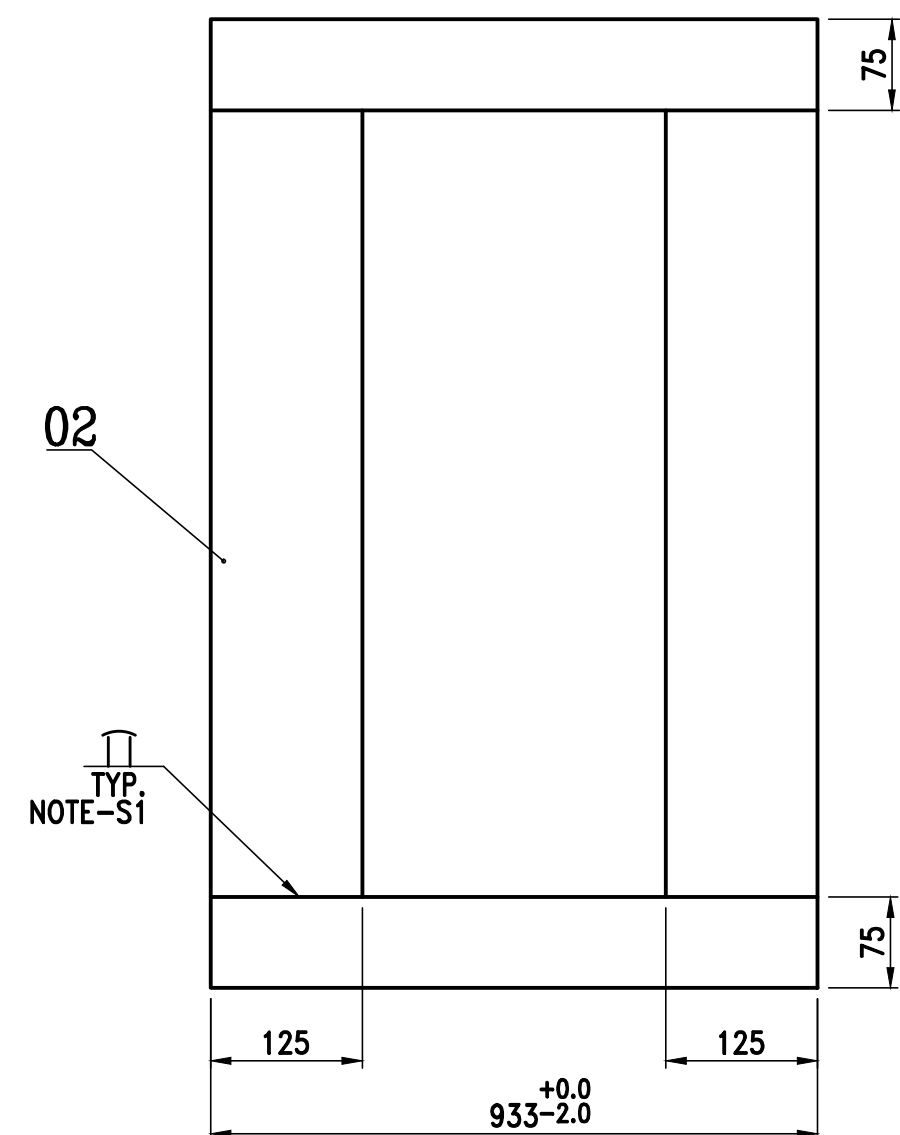
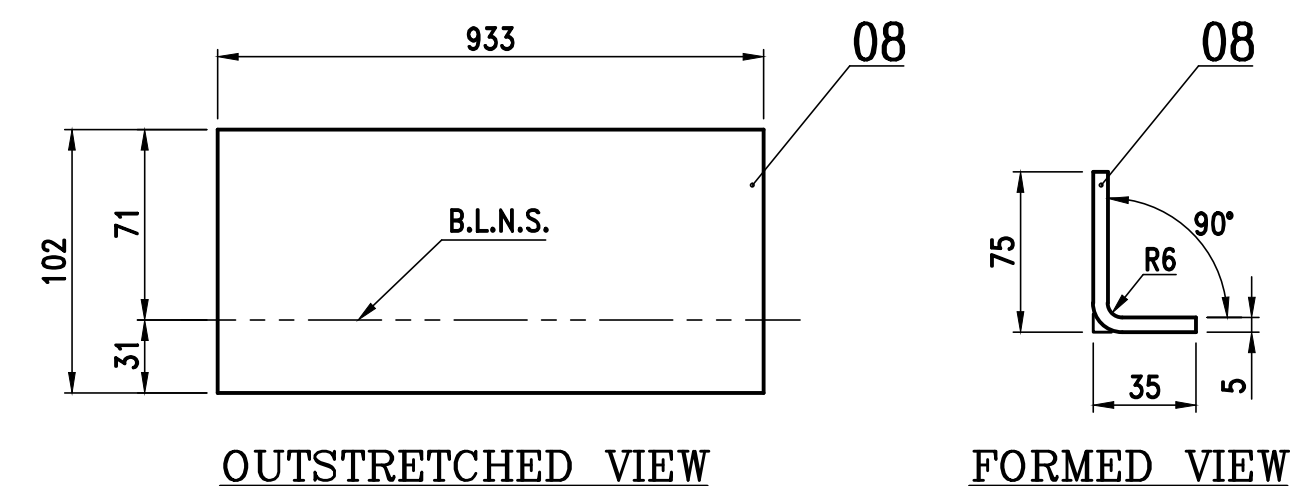
REV	DATE	ALTERED A.K	Sd..
04	01.12.11	CHECKED RSB	Sd..
ZONE			

BASKET IMPROVED DESIGN INTRODUCED AND TOTAL WEIGHT WAS 317.570

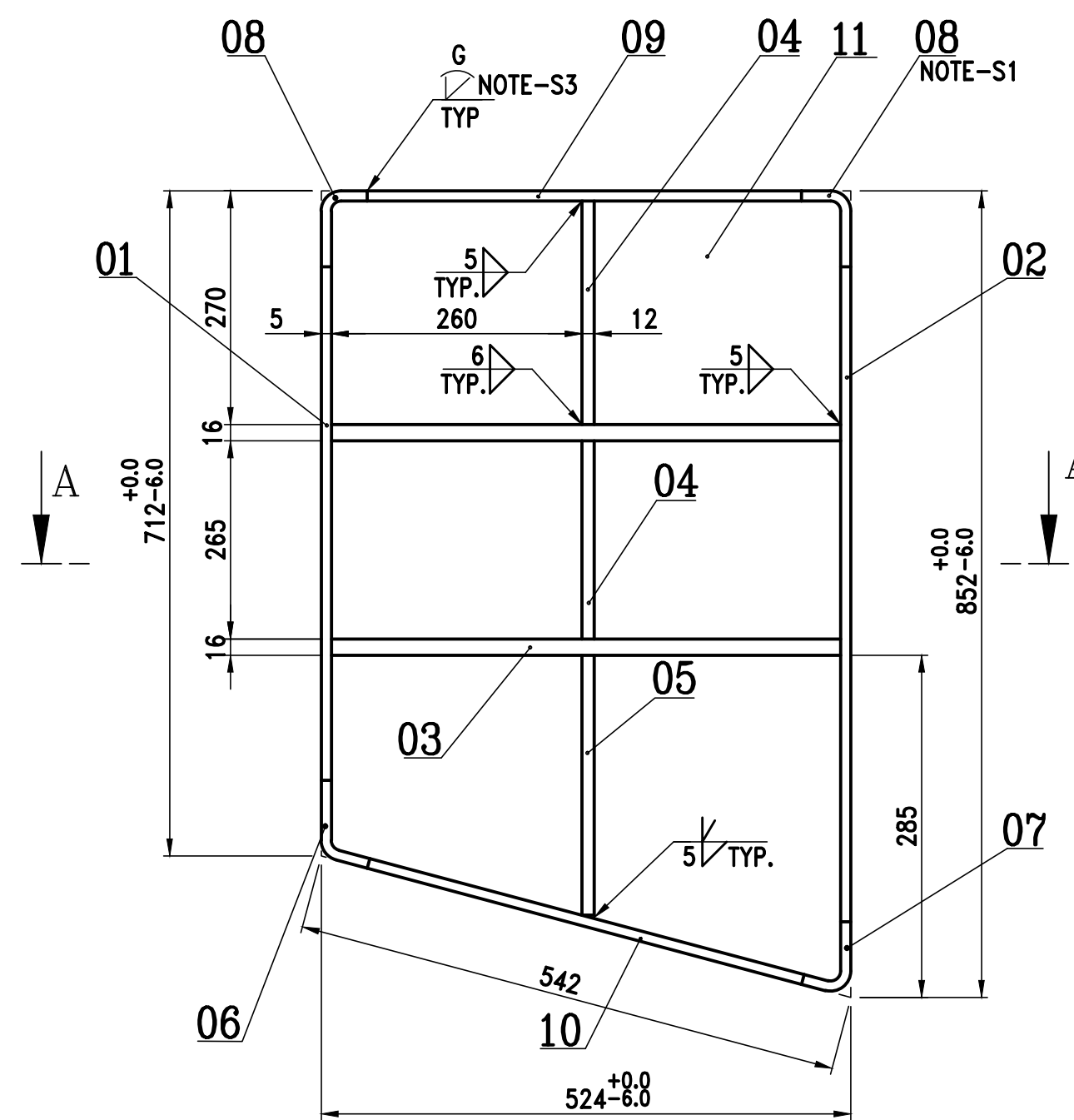
FOR PRODUCTION REF.: PR:QA:590 FOR PAINTING REF.: PR:QA:500 FOR UNTOL. DIMS. REF.: APPLICABLE GMS FOR MATL CODE & SPEC

SHOP NOTES:-

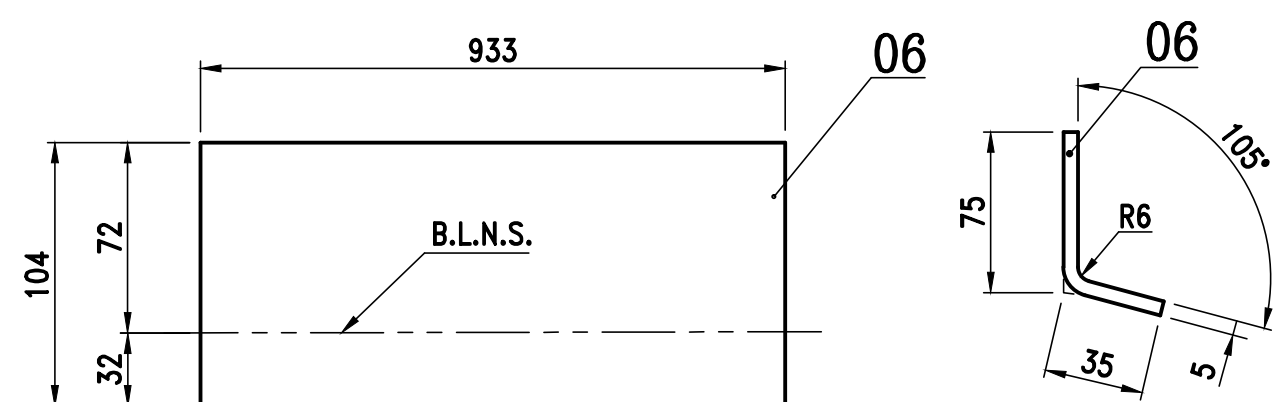
- S-1. ASSEMBLE OUTER END PLATES ITEM NO.02, 75° AND 90° CORNER ANGLES BEFORE WELDING TO BASKET.
- S-2. INSTALL ELEMENTS BEFORE WELDING OUTER END PLATE ASSY IN PLACE
- S-3. ALL OUTSIDE WELDS TO BE HALF "V" EDGE PREPARED, WELDED AND FLUSH GROUND TO ENSURE EASY INSERTION OF BASKETS IN THE ROTOR COMPARTMENTS.
- S-4. PUNCH "BASKET-E" ON THE ASSEMBLY.



VIEW FROM RIGHT

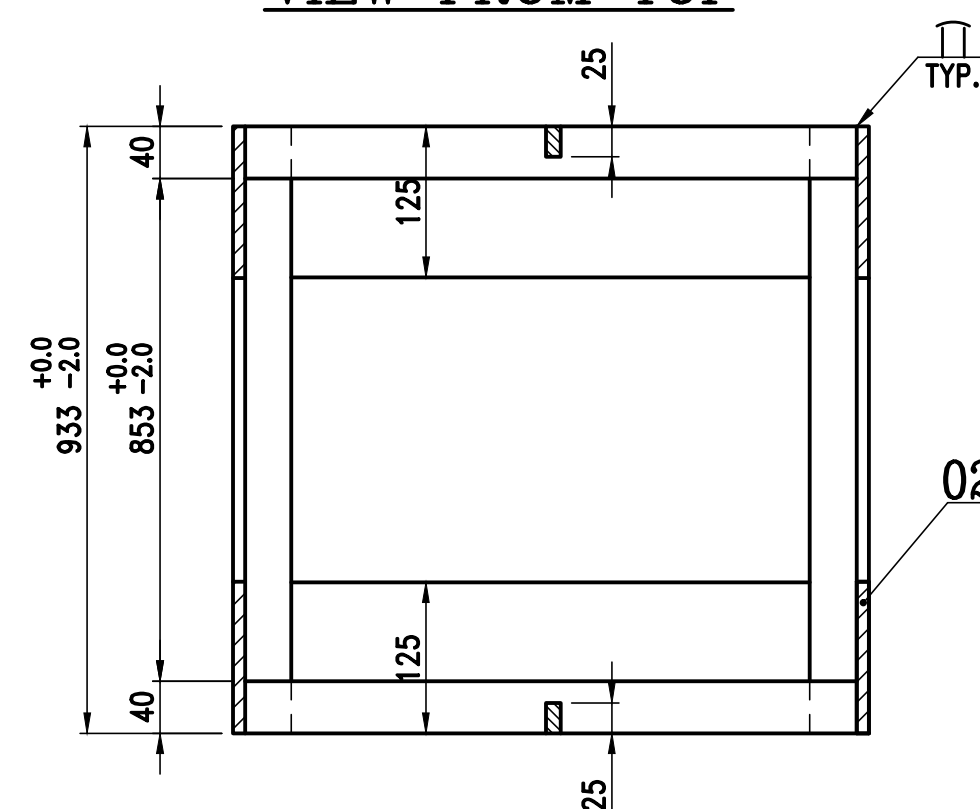


VIEW FROM TOP

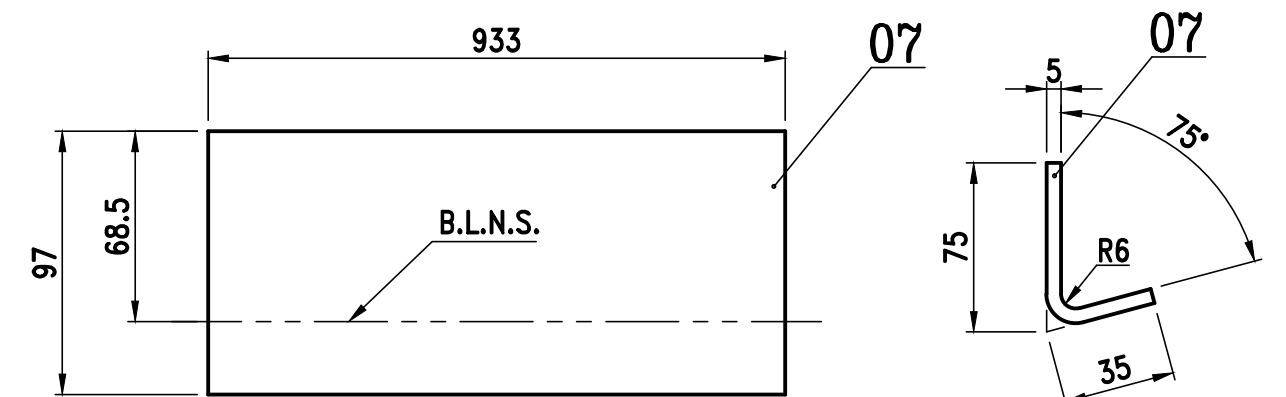


OUTSTRETCHED VIEW

FORMED VIEW



SECTION-AA



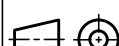
OUTSTRETCHED VIEW

FORMED VIEW

	11	HE CUTTING LIST SH 0.63X850 DU		4-52-010-00947		158117150850			337.450	
						IS 513 DD			1	
	10	PL 5X125X471				AA1011808013			2.311	
						IS 2062 GR A			2	
	09	PL 5X125X453				AA1011808013			2.223	
						IS 2062 GR A			2	
	08	90DEG COR ANGLE PL 5X102X933				AA1011808013			3.735	
						IS 2062 GR A			2	
	07	75DEG COR ANGLE PL 5X97X933				AA1011808013			3.550	
						IS 2062 GR A			1	
	06	105DEG COR ANGLE PL 5X104X933				AA1011808013			3.810	
						IS 2062 GR A			1	
	05	SPIDER BAR FL 25X12;211				AA1010308505			0.497	
						IS 2062 GR A			2	
	04	SPIDER BAR FL 25X12;265				AA1010308505			0.624	
						IS 2062 GR A			4	
	03	HOLDING BAR FL 40X16;514				AA1010308599			2.580	
						IS 2062 GR A			4	
	02	OUTER END PLATE PL 5X125X702				AA1011808013			3.440	
						IS 2062 GR A			2	
	01	INNER END PLATE PL 5X125X562				AA1011808013			2.760	
						IS 2062 GR A			2	
VAR NO	ITEM NO	DESCRIPTION	CAT	DRAWING No.	ITEM NO VAR NO	MATL CODE MATL SPECN	A/P/C	UNIT DI	UNIT WT QTY	GS TOL

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

TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT	
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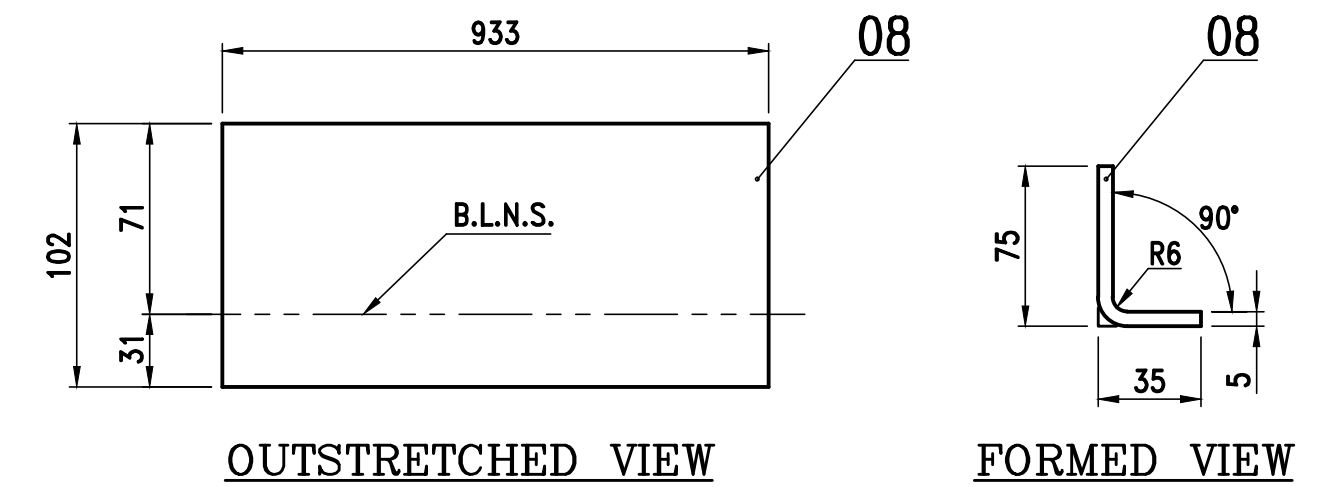
 BHARAT HEAVY ELECTRICALS LTD., UNIT: BOILER AUXILIARIES PLANT. RANIPET - 632 406.				DRN CHD APPD	NAME C P SANKAR N MANOHAR N MANOHAR	SIGN Sd.. Sd.. Sd..	DATE 11.02.82	NO. OF VAL
DEPT AP	GRADE OF UNTOL DIM PR: QA: 500		SCALE NTS	WEIGHT (KG). 387.558	REF. TO ASSY/OLD DRG.		ITEM NO.	NO. OF ITEM
CODE 852				TITLE ASSY OF BASKET-E	CARD CODE U 01	DRAWING NO. 2-52-010-00542		REV 04

REV 04	DATE 01.12.11	ALTERED A.K CHECKED RSB
ZONE	BASKET IMPROVED DESIGN INTRODUCED AND TOTAL WEIGHT WAS 384.070	

FOR PRODUCTION REF.: PR:QA:590 FOR PAINTING REF.: PR:QA:500 FOR UNTOL. DIMS. REF.: APPLICABLE GMS FOR MATL CODE & SPEC

SHOP NOTES:-

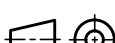
- S-1. ASSEMBLE OUTER END PLATES ITEM NO.02, 75° AND 90° CORNER ANGLES BEFORE WELDING TO BASKET.
- S-2. INSTALL ELEMENTS BEFORE WELDING OUTER END PLATE ASSY IN PLACE
- S-3. ALL OUTSIDE WELDS TO BE HALF 'V' EDGE PREPARED, WELDED AND FLUSH GROUND TO ENSURE EASY INSERTION OF BASKETS IN THE ROTOR COMPARTMENTS.
- S-4. PUNCH "BASKET-F" ON THE ASSEMBLY.

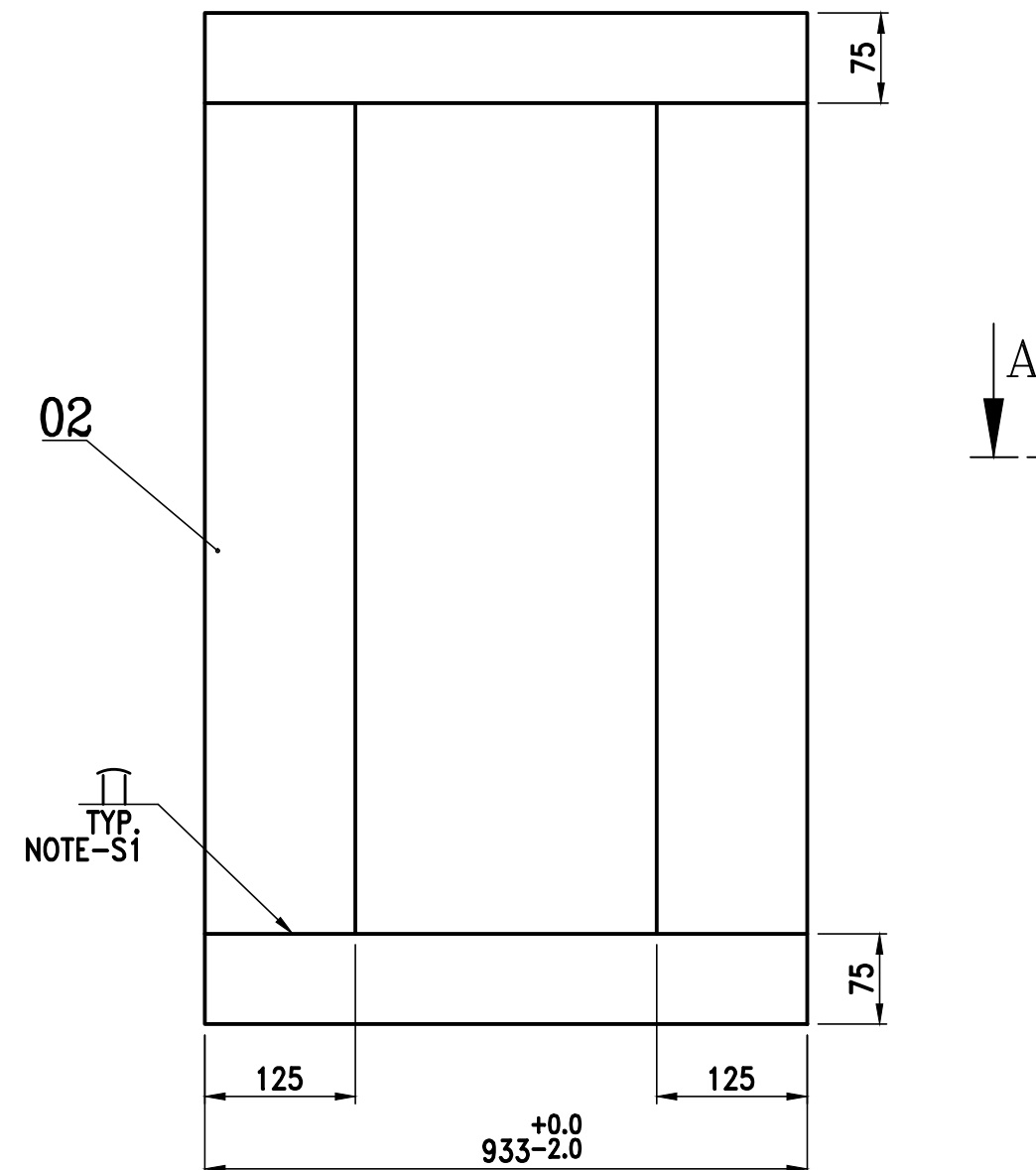


	11	HE CUTTING LIST SH 0.63X850 DU		4-52-010-00948		158117150850 IS 513 DD			400.350 1		
	10	PL 5X125X471				AA1011808013 IS 2062 GR A			2.311 2		
	09	PL 5X125X453				AA1011808013 IS 2062 GR A			2.223 2		
	08	90DEG COR ANGLE PL 5X102X933				AA1011808013 IS 2062 GR A			3.735 2		
	07	75DEG COR ANGLE PL 5X97X933				AA1011808013 IS 2062 GR A			3.550 1		
	06	105DEG COR ANGLE PL 5X104X933				AA1011808013 IS 2062 GR A			3.810 1		
	05	SPIDER BAR FL 25X12;208				AA1010308505 IS 2062 GR A			0.490 2		
	04	SPIDER BAR FL 25X12;220				AA1010308505 IS 2062 GR A			0.518 6		
	03	HOLDING BAR FL 40X16;514				AA1010308599 IS 2062 GR A			2.580 6		
	02	OUTER END PLATE PL 5X125X845				AA1011808013 IS 2062 GR A			4.146 2		
	01	INNER END PLATE PL 5X125X705				AA1011808013 IS 2062 GR A			3.460 2		
VAR NO	ITEM NO	DESCRIPTION	CAT	DRAWING No.	ITEM NO VAR NO	MATL CODE MATL SPECN	A/P/C DI	UNIT	UNIT WT QTY	G.S	ZONE

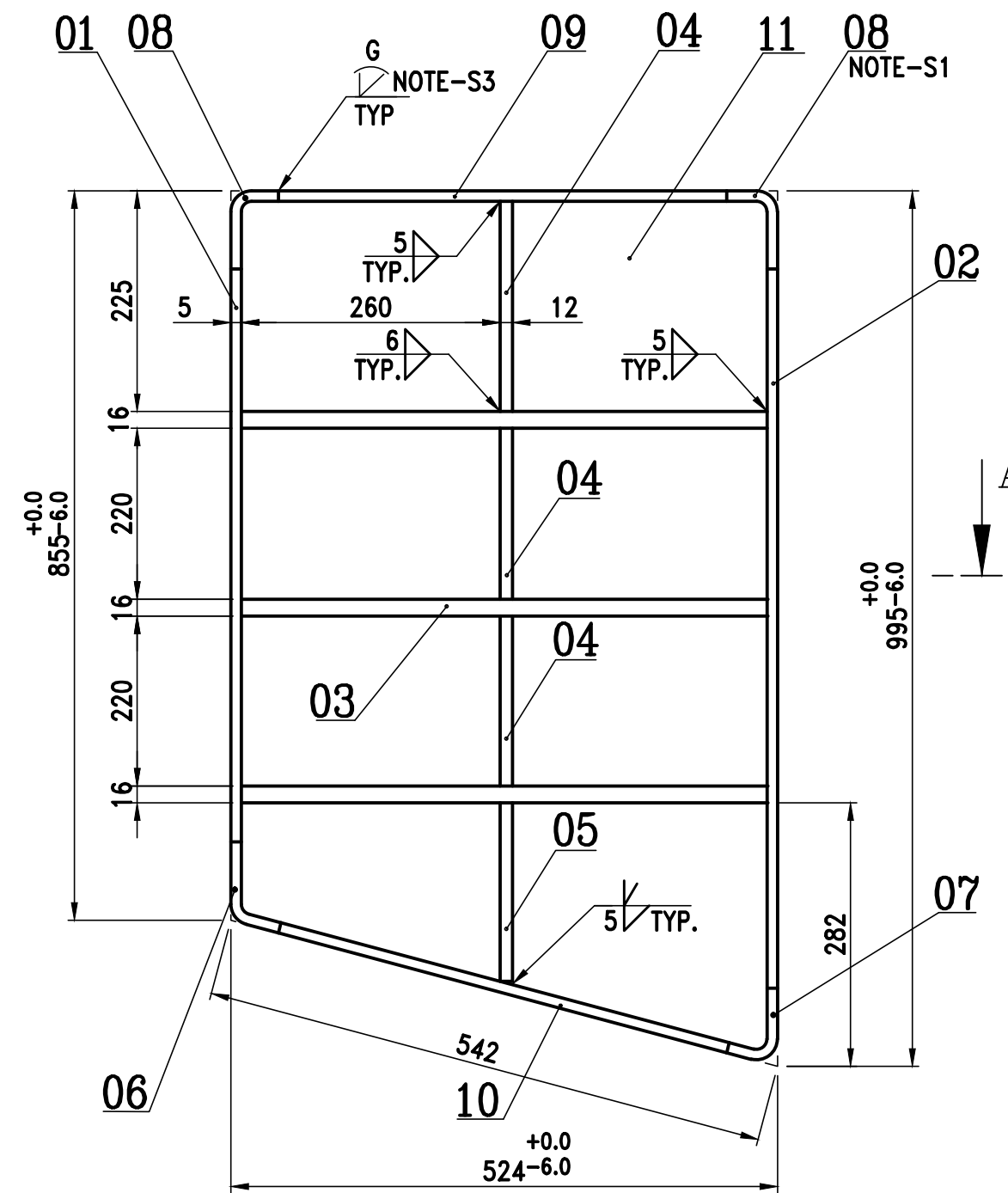
CAUTION: The information on this document is the property of BHARAT HEAVY ELECTRICALS LTD. It must not be used directly or indirectly in any way detrimental to the interest of

TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT	
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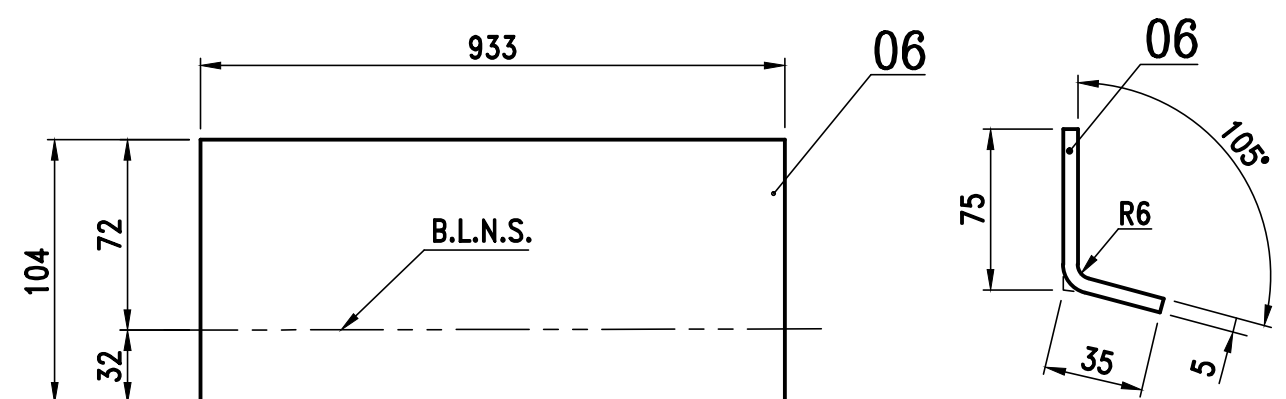
 BHARAT HEAVY ELECTRICALS LTD., UNIT: BOILER AUXILIARIES PLANT. RANIPET - 632 406.		DRN	NAME C P SANKAR	SIGN Sd..	DATE 11.02.82	NO. OF VAR.	
		CHD	N MANOHAR	Sd..			
		APPD	N MANOHAR	Sd..			
DEPT AP	GRADE OF UNTOL DIM		SCALE	WEIGHT (KG).	REF. TO ASSY/OLD DRG.	ITEM NO.	NO. OF ITEMS
CODE 852	PR: QA: 500		NTS	459.028			
TITLE				CARD CODE	DRAWING NO.		REV
ASSY OF BASKET-F				U 01	2-52-010-00543		04



VIEW FROM RIGHT

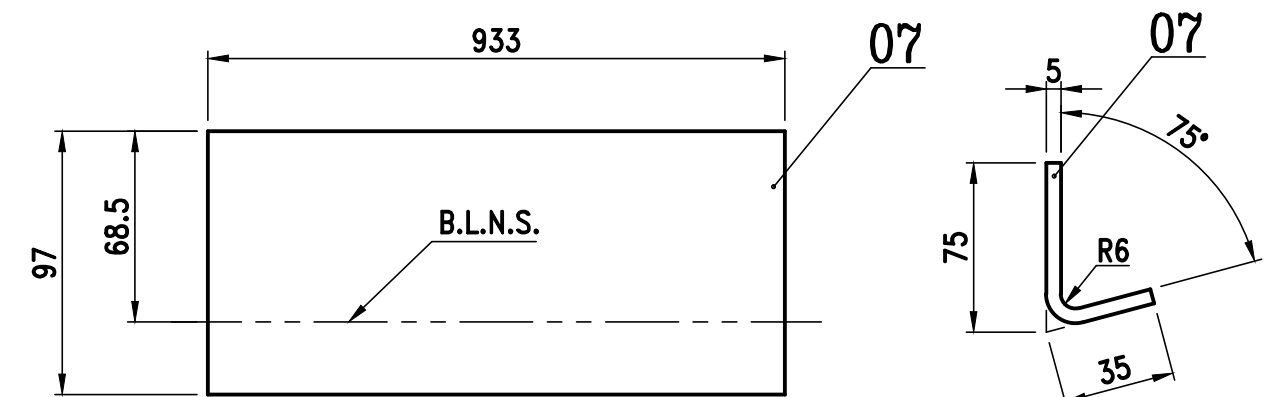


VIEW FROM TOP



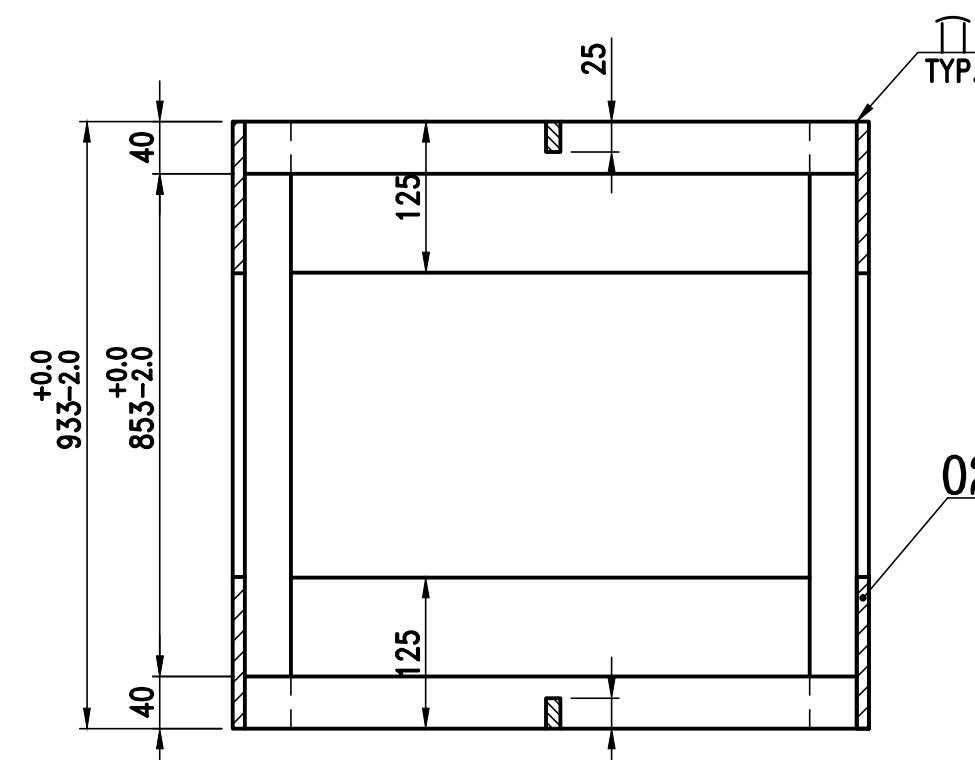
OUTSTRETCHED VIEW

FORMED VIEW



OUTSTRETCHED VIEW

FORMED VIEW



SECTION-AA

REV 04	DATE 01.12.11	ALTERED A.K CHECKED RSB
ZONE	BASKET IMPROVED DESIGN INTRODUCED AND TOTAL WEIGHT WAS 455.690	

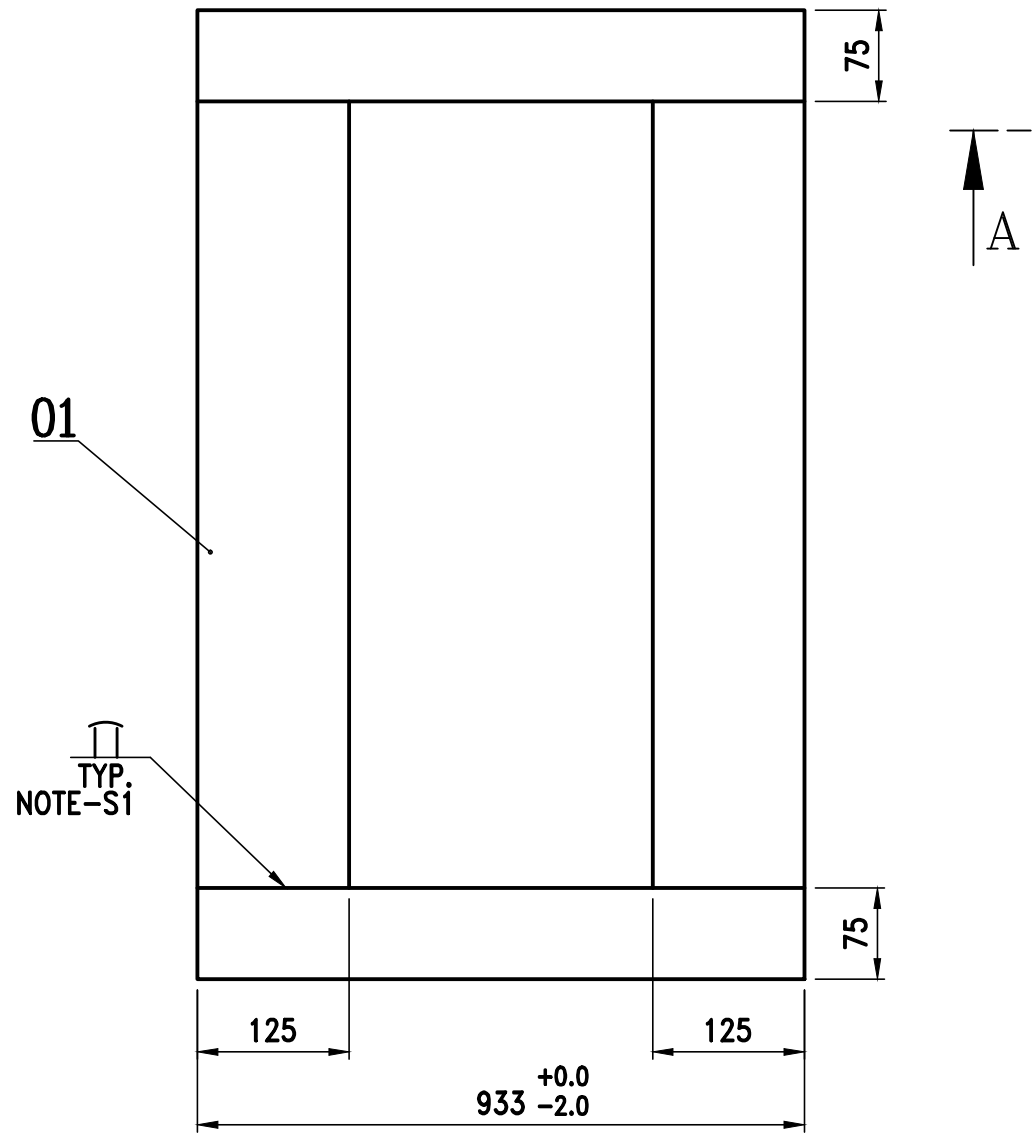
2-52-010-00544
DRAWING NO.

ALL DIMENSIONS ARE IN MILLIMETRES

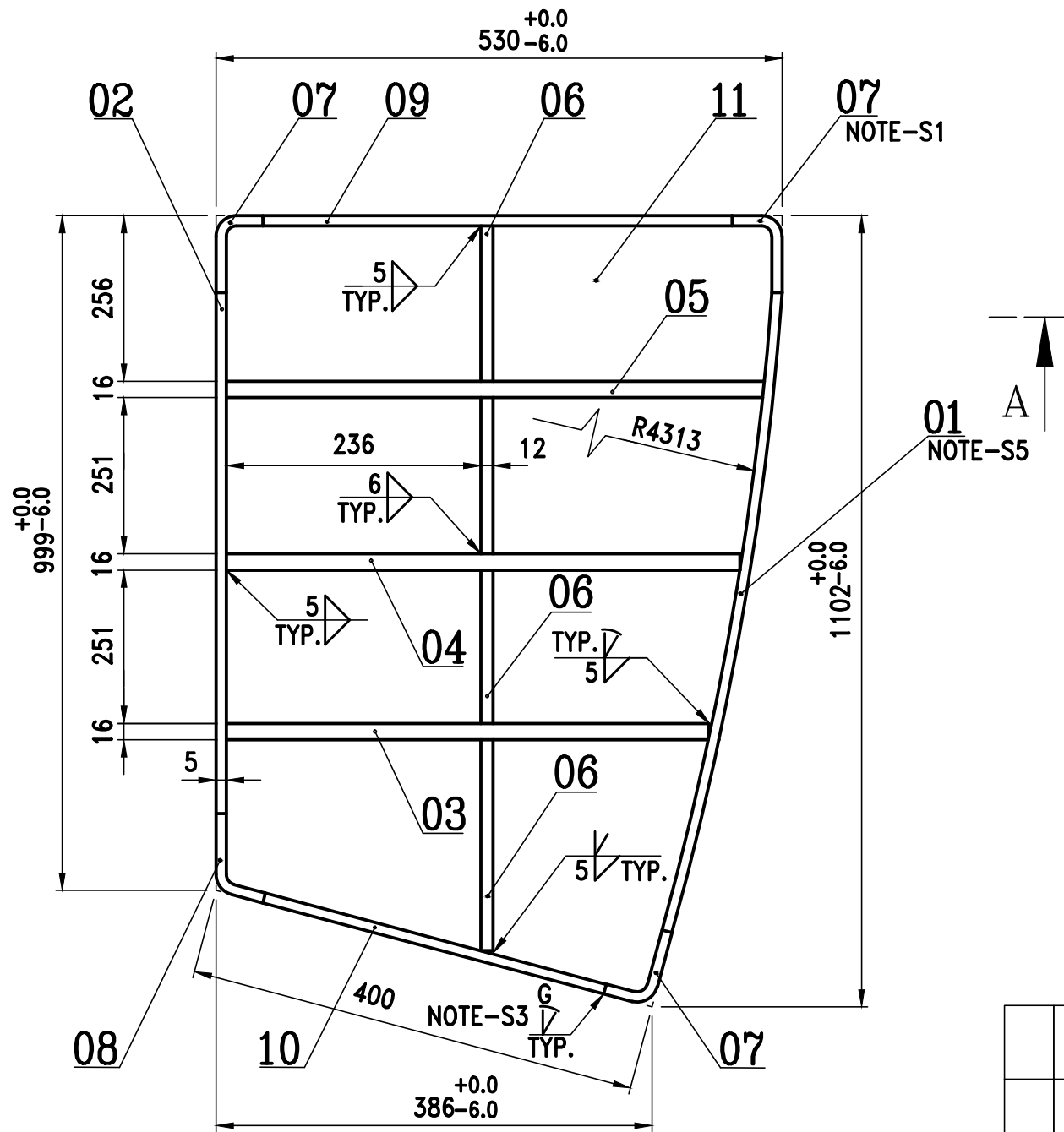
FOR PRODUCTION
REF.: PR:QA:590 FOR PAINTING
REF.: PR:QA:500 FOR UNTOL. DIMS.
REF.: APPLICABLE GMS FOR MATL CODE & SPEC

SHOP NOTES:-

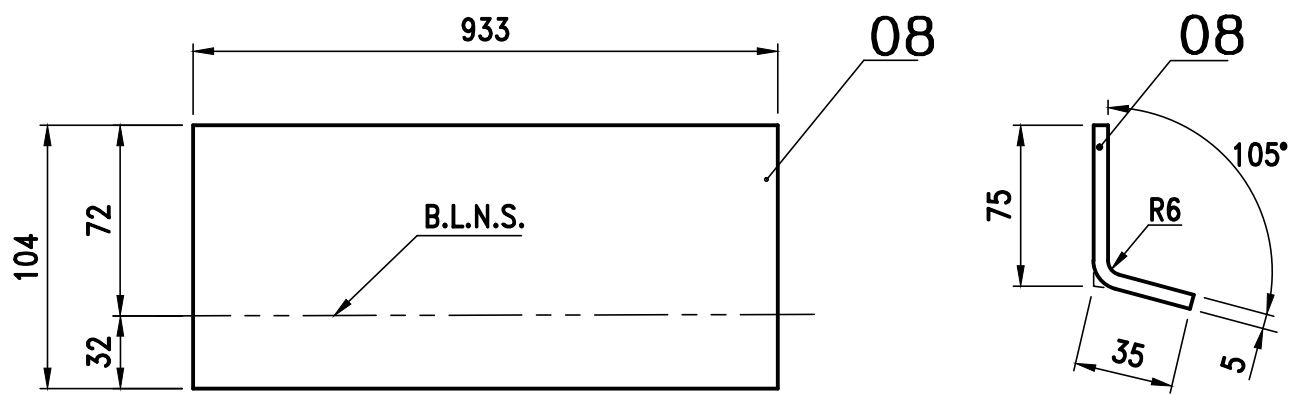
- S-1. ASSEMBLE OUTER END PLATES ITEM NO.01, AND 90° CORNER ANGLES ITEM NO.07 BEFORE WELDING TO BASKET.
S-2. INSTALL ELEMENTS BEFORE WELDING OUTER END PLATE ASSY IN PLACE.
S-3. ALL OUTSIDE WELDS TO BE HALF 'V' EDGE PREPARED, WELDED AND FLUSH GROUND TO ENSURE EASY INSERTION OF BASKETS IN THE ROTOR COMPARTMENTS.
S-4. PUNCH "BASKET-G27" ON THE ASSEMBLY.
S-5. ROLL ITEM NO. 01 TO IR.4313.



VIEW FROM RIGHT

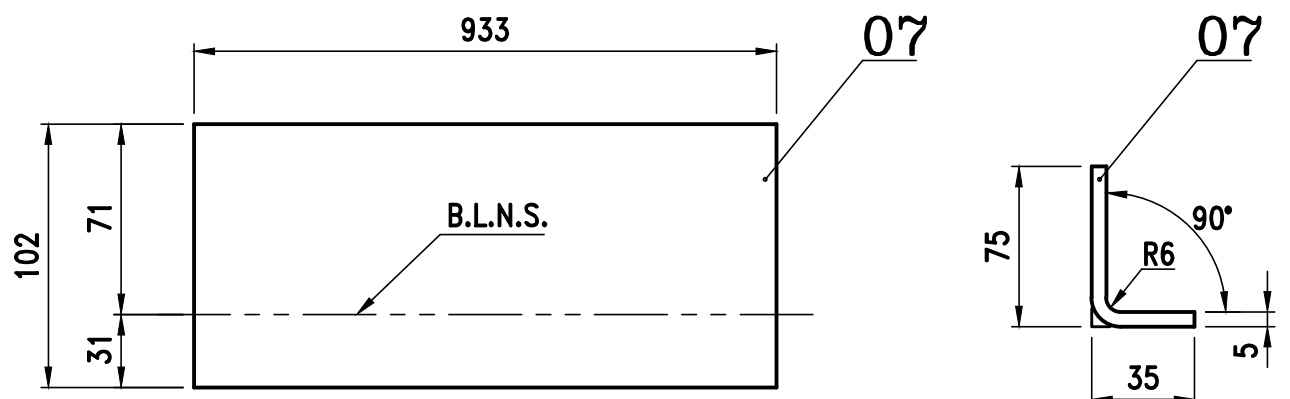


VIEW FROM TOP



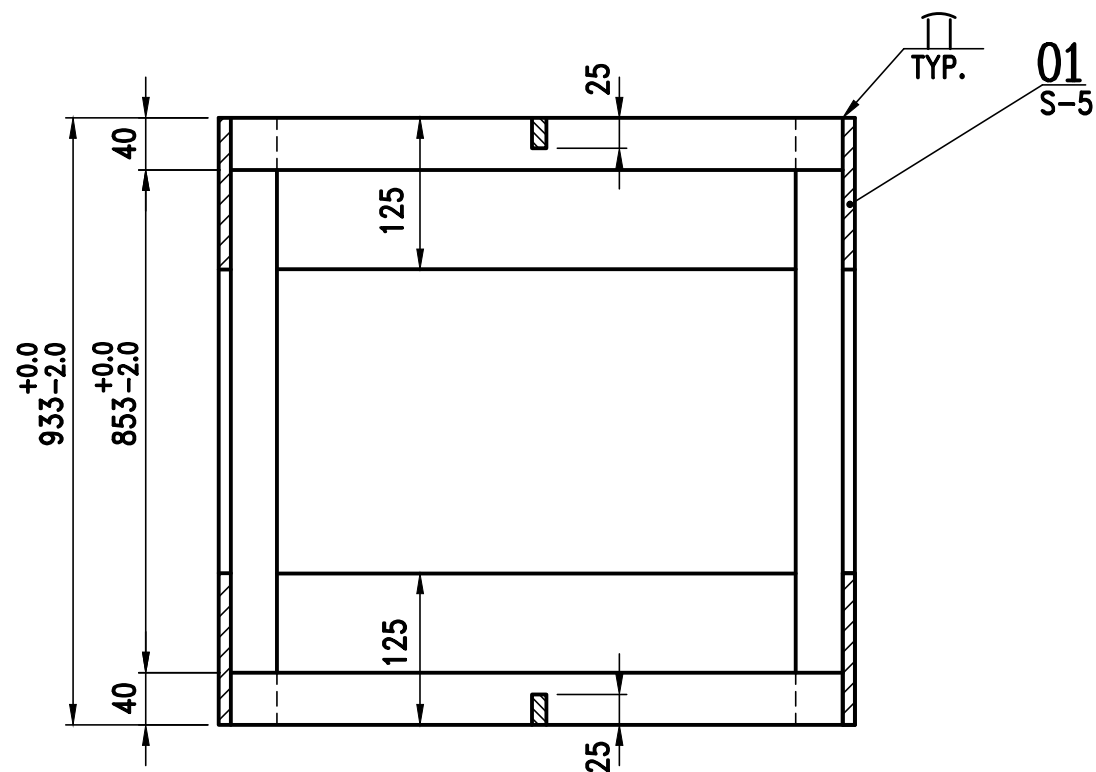
OUTSTRETCHED VIEW

FORMED VIEW



OUTSTRETCHED VIEW

FORMED VIEW



SECTION-AA

VAR NO	ITEM NO	DESCRIPTION	CAT	DRAWING No.	ITEM NO VAR NO	MATL CODE MATL SPECN	A/P/C DI	UNIT QTY	UNIT WT	G.S	ZONE
	11	HE CUTTING LIST SH 0.63X850 DU		4-52-010-00949		158117150850 IS 513 DD		421.600	1		
	10	PL.5x125x329				AA1011808013 IS 2062 GR A		1.614	2		
	09	PL.5x125x459				AA1011808013 IS 2062 GR A		2.252	2		
	08	105DEG.COR.ANGLE PL.5x104x933				AA1011808013 IS 2062 GR A		3.810	1		
	07	90 DEG.COR.ANGLE PL.5x102x933				AA1011808013 IS 2062 GR A		3.735	3		
	06	SPIDER BAR F25x12; 251				AA1010308505 IS 2062 GR A		0.590	8		
	05	HOLDING BAR F40x16; 511				AA1010308599 IS 2062 GR A		2.567	2		
	04	HOLDING BAR F40x16; 486				AA1010308599 IS 2062 GR A		2.440	2		
	03	HOLDING BAR F40x16; 443				AA1010308599 IS 2062 GR A		2.226	2		
	02	INNER END PLATE PL.5x125x849				AA1011808013 IS 2062 GR A		4.160	2		
	01	OUTER END PLATE PL.5x125x964				AA1011808013 IS 2062 GR A		4.730	2		

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											
				BHARAT HEAVY ELECTRICALS LTD., UNIT: BOILER AUXILIARIES PLANT. RANIPET - 632 406.			DRN	NAME C P SANKAR	SIGN Sd..	DATE 11.02.82	NO. OF VAR.
							CHD	N MANOHAR	Sd..		
							APPD	N MANOHAR	Sd..		
DEPT AP	GRADE OF UNTOL DIM PR: QA: 500		SCALE NTS	WEIGHT (KG). 481.313		REF. TO ASSY/OLD DRG.				ITEM NO.	NO. OF ITEMS
CODE 852											
TITLE ASSY OF BASKET-G27						CARD CODE U 01	DRAWING NO. 2-52-010-00544				REV 04

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.

REV	DATE	ALTERED A.K
04	01.12.11	CHECKED RSB
ZONE BASKET IMPROVED DESIGN INTRODUCED AND TOTAL WEIGHT WAS 484.245		

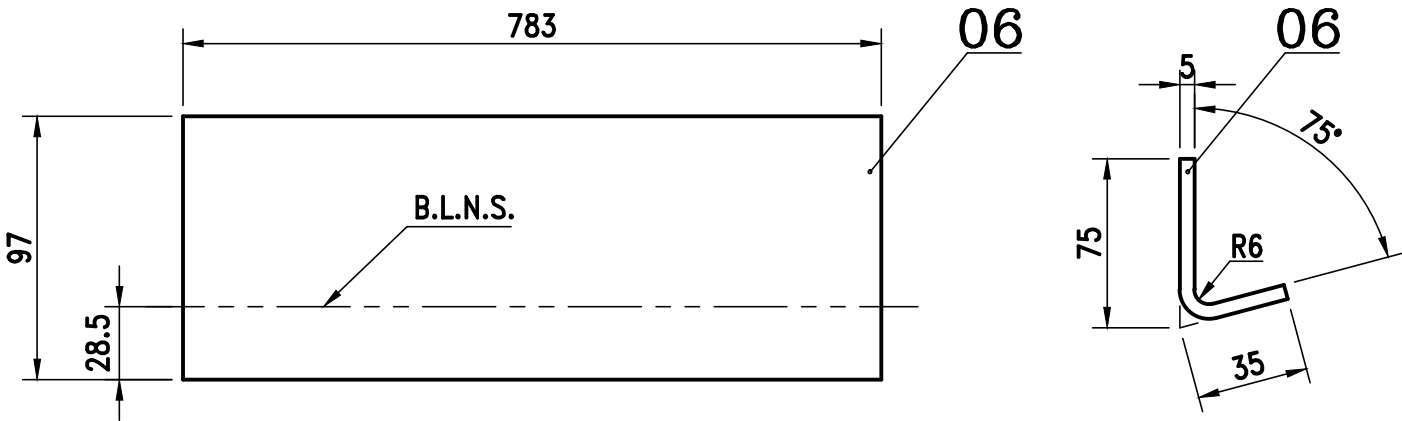
77900-010-75-2
DRAWING NO.

ALL DIMENSIONS ARE IN MILLIMETRES

FOR PRODUCTION
REF.: PR:QA:590 FOR PAINTING
REF.: PR:QA:500 FOR UNTOL. DIMS.
REF.: APPLICABLE GMS FOR MATL CODE & SPEC

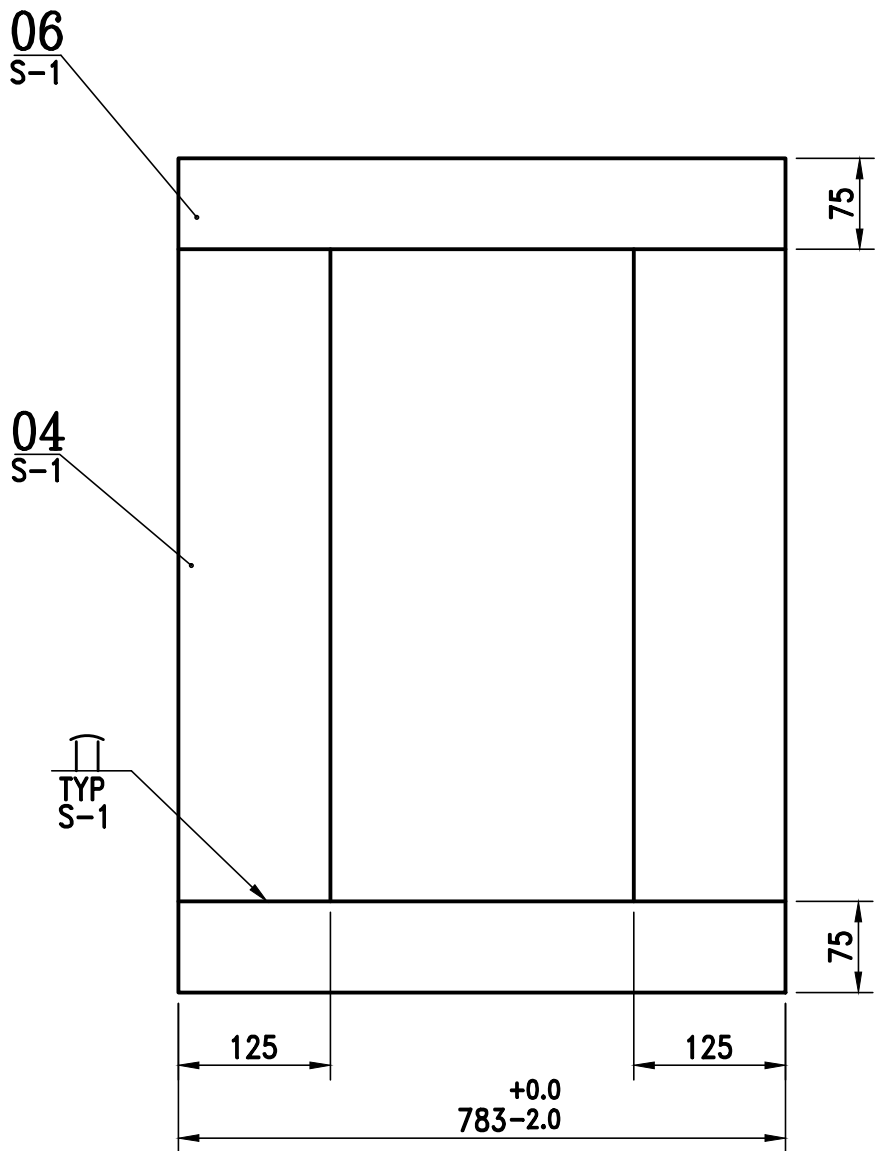
SHOP NOTES:-

- S-1. ASSEMBLE OUTER END PLATES ITEM NO.04, AND 75° CORNER ANGLES BEFORE WELDING TO BASKET.
S-2. INSTALL ELEMENTS BEFORE WELDING OUTER END PLATE ASSY IN PLACE
S-3. ALL OUTSIDE WELDS TO BE HALF 'V' EDGE PREPARED, WELDED AND FLUSH GROUND TO ENSURE EASY INSERTION OF BASKETS IN THE ROTOR COMPARTMENTS.
S-4. PUNCH "BASKET-AB" ON THE ASSEMBLY.

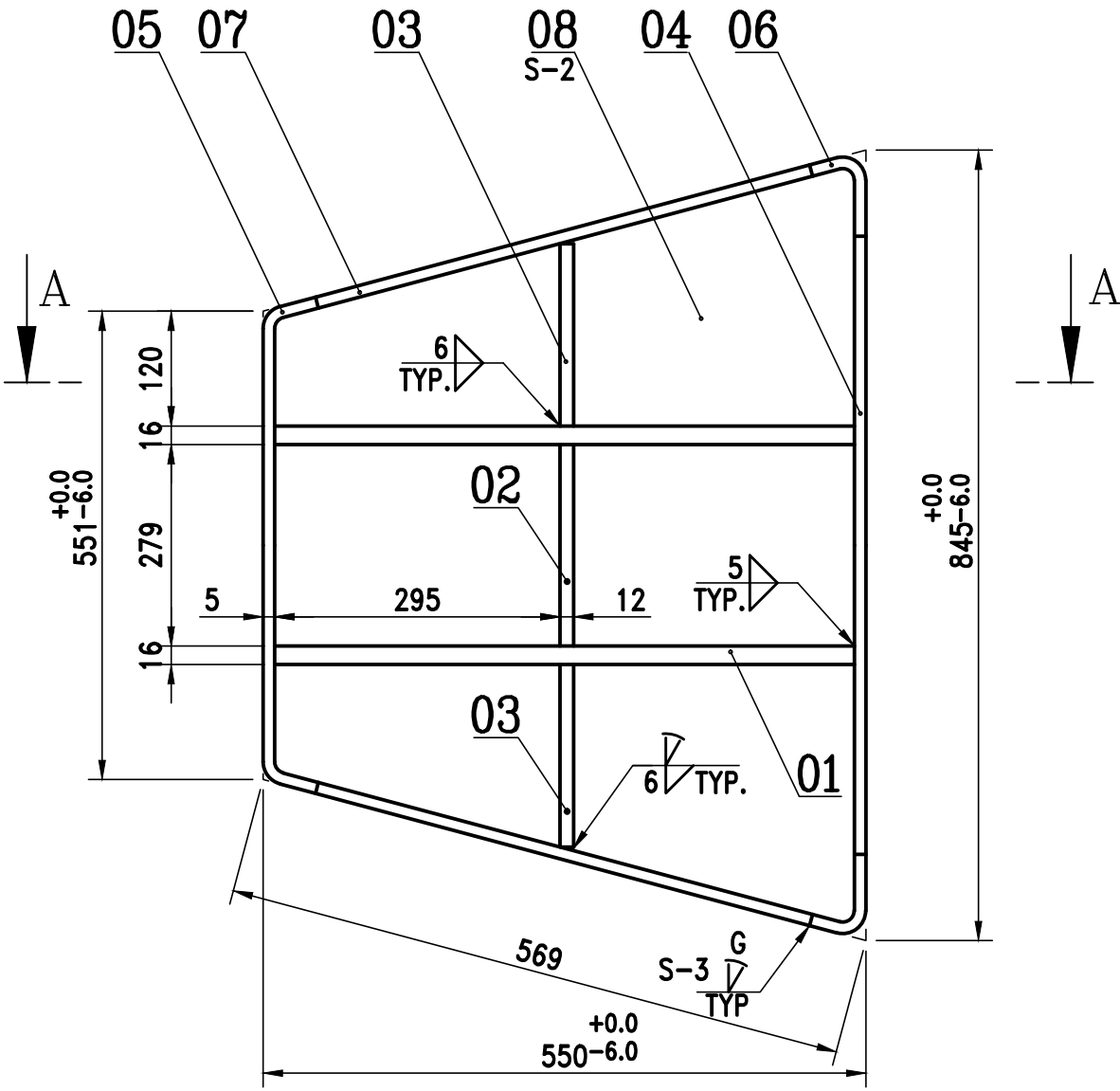


OUTSTRETCHED VIEW

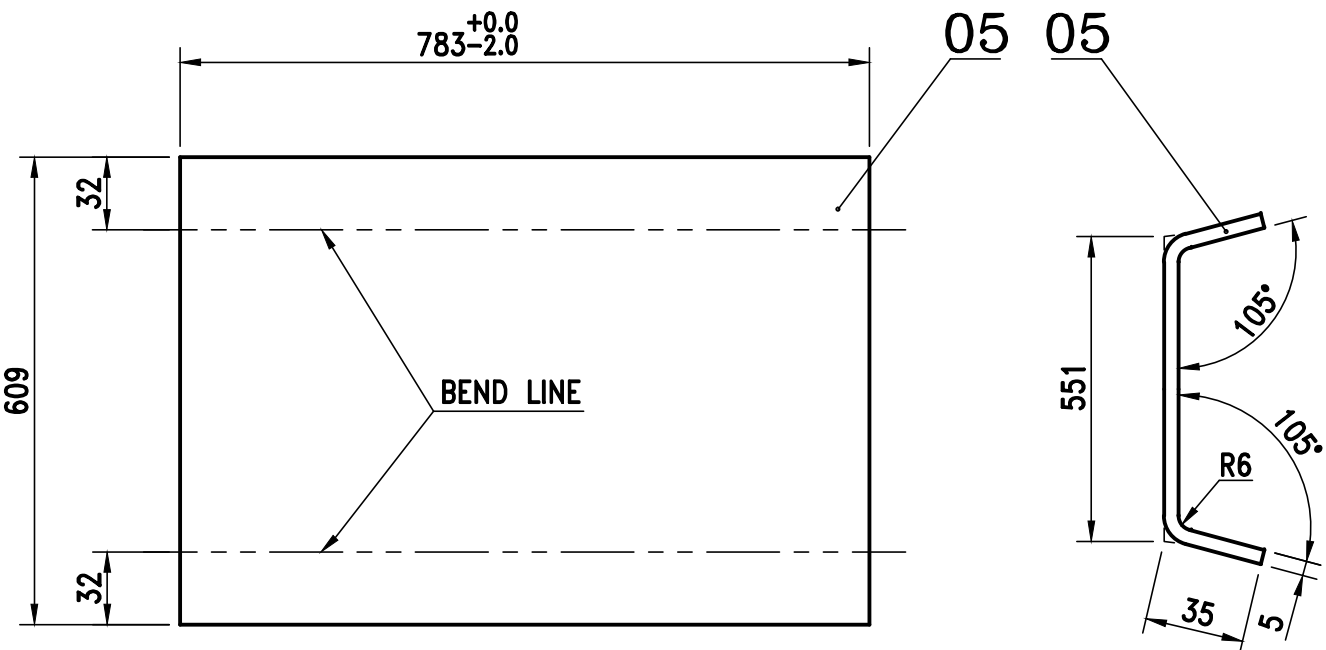
FORMED VIEW



VIEW FROM RIGHT

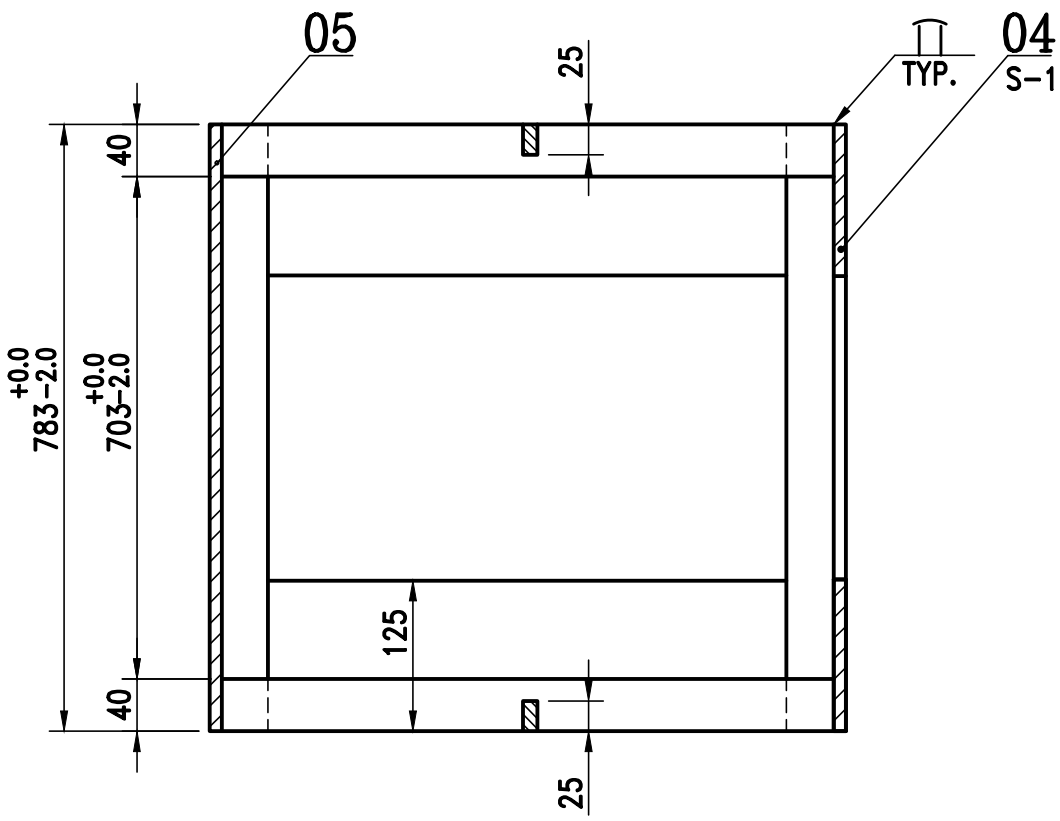


VIEW FROM TOP



OUTSTRETCHED VIEW

FORMED VIEW

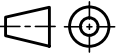


SECTION-AA

08	HE CUTTING LIST SH 0.63X700 DU	4-52-010-01189	158117150700	260.400
07	PL 5X125X498		IS 513 DD	1
06	75DEG COR ANGLE PL 5X97X783		AA1011808013	2.440
05	INNER END PLATE PL 5X609X783		IS 2062 GR A	4
04	OUTER END PLATE PL 5X125X695		AA1011808013	2.980
03	SPIDER BAR FL 25X12;195		IS 2062 GR A	2
02	SPIDER BAR FL 25X12;279		AA1011808013	18.720
01	HOLDING BAR FL 40X16;540		IS 2062 GR A	1
			AA1011808013	3.410
			IS 2062 GR A	2
			AA1010308505	0.520
			IS 2062 GR A	4
			AA1010308505	0.546
			IS 2062 GR A	2
			AA1010308599	2.708
			IS 2062 GR A	4

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CE

TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT										
			BHARAT HEAVY ELECTRICALS LTD., UNIT: BOILER AUXILIARIES PLANT. RANIPET - 632 406.			DRN	NAME BALU K	SIGN Sd..	DATE 06.05.83	NO. OF VAR.
						CHD	CPS	Sd..		
						APPD	PJ	Sd..		
DEPT AP	GRADE OF UNTOL DIM			SCALE	WEIGHT (KG).	REF. TO ASSY/OLD DRG.			ITEM NO.	NO. OF ITEMS
CODE 852	PR: QA: 500			NTS	315.664					
TITLE					CARD CODE	DRAWING NO.				REV
ASSY OF BASKET-AB					U 01	2-52-010-00677				02

REV	DATE	ALTERED A.K
02	05.12.11	CHECKED RSB
ZONE	BASKET IMPROVED DESIGN INTRODUCED AND TOTAL WEIGHT WAS 310.290	

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.

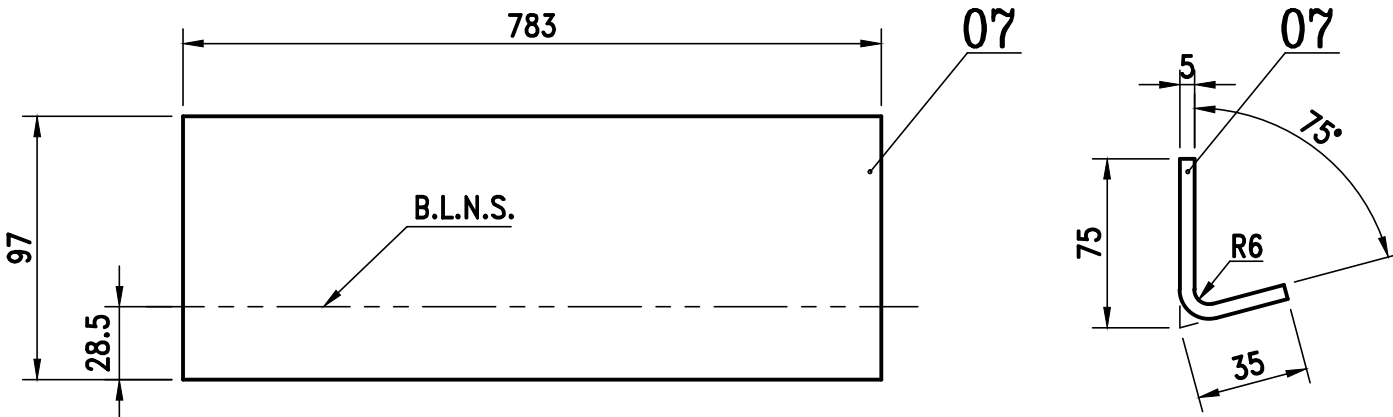
87900-010-75-7
DRAWING NO.

ALL DIMENSIONS ARE IN MILLIMETRES

FOR PRODUCTION
REF.: PR:QA:590 FOR PAINTING
REF.: PR:QA:500 FOR UNTOL. DIMS.
REF.: APPLICABLE GMS FOR MATL CODE & SPEC

SHOP NOTES:-

- S-1. ASSEMBLE OUTER END PLATES ITEM NO.02 AND 75° CORNER ANGLES BEFORE WELDING TO BASKET.
S-2. INSTALL ELEMENTS BEFORE WELDING OUTER END PLATE ASSY IN PLACE
S-3. ALL OUTSIDE WELDS TO BE HALF 'V' EDGE PREPARED, WELDED AND FLUSH GROUND TO ENSURE EASY INSERTION OF BASKETS IN THE ROTOR COMPARTMENTS.
S-4. PUNCH "BASKET-C" ON THE ASSEMBLY.

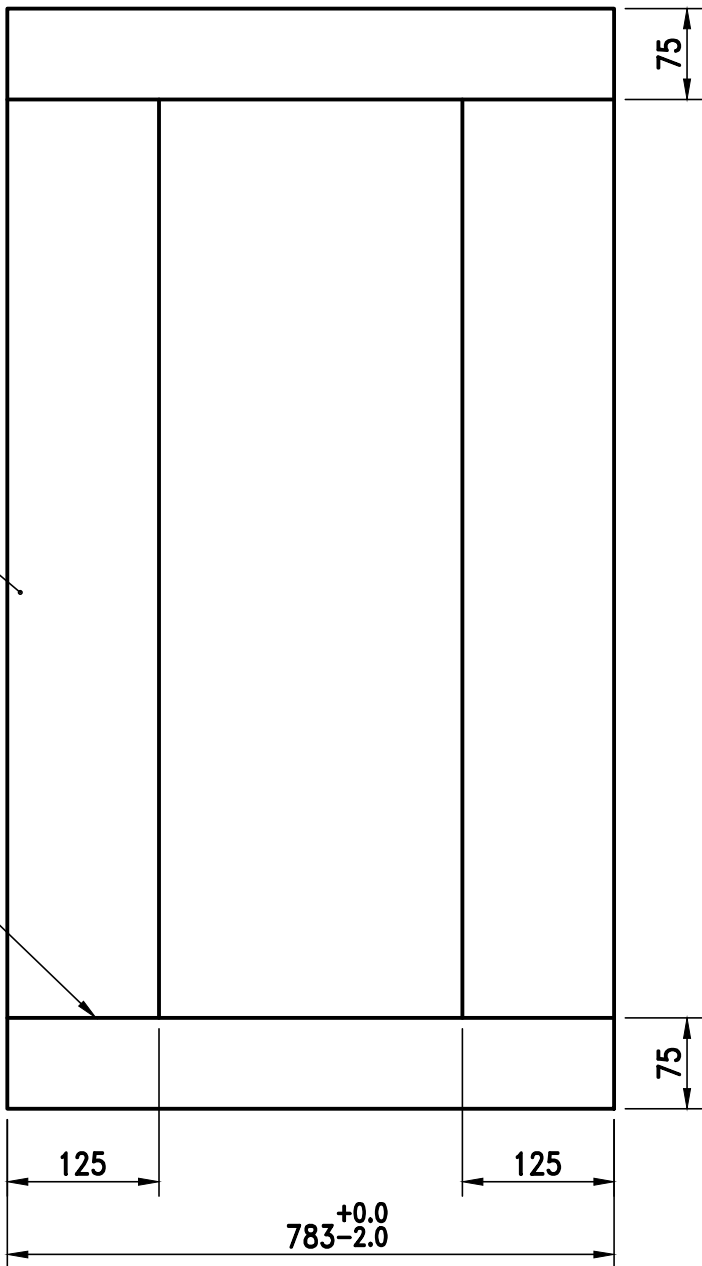


OUTSTRETCHED VIEW

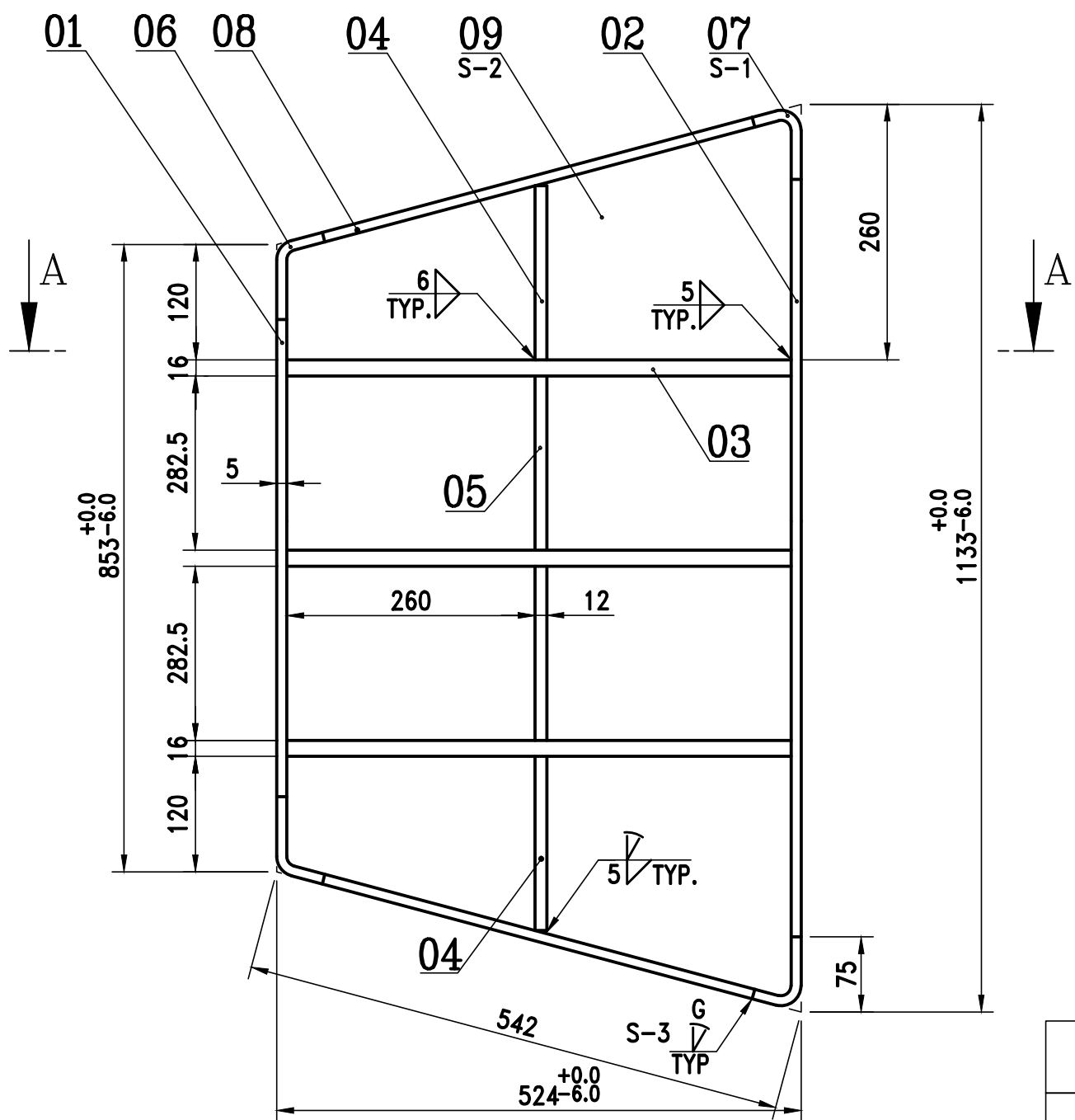
FORMED VIEW

02

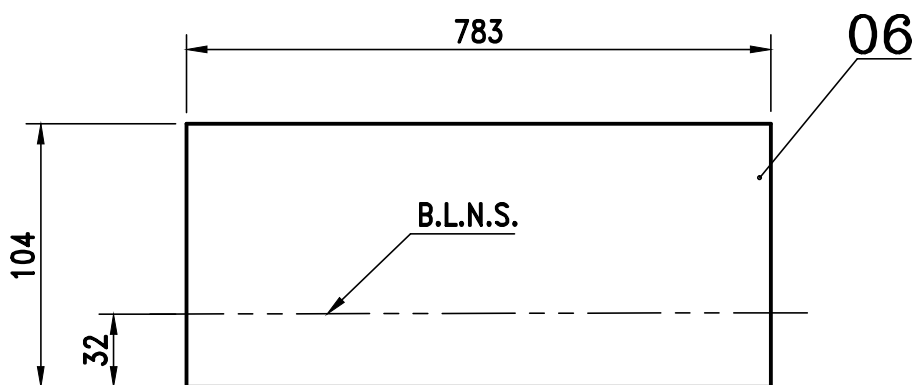
TYP.
NOTE-S1



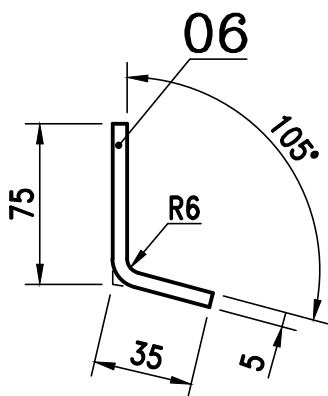
VIEW FROM RIGHT



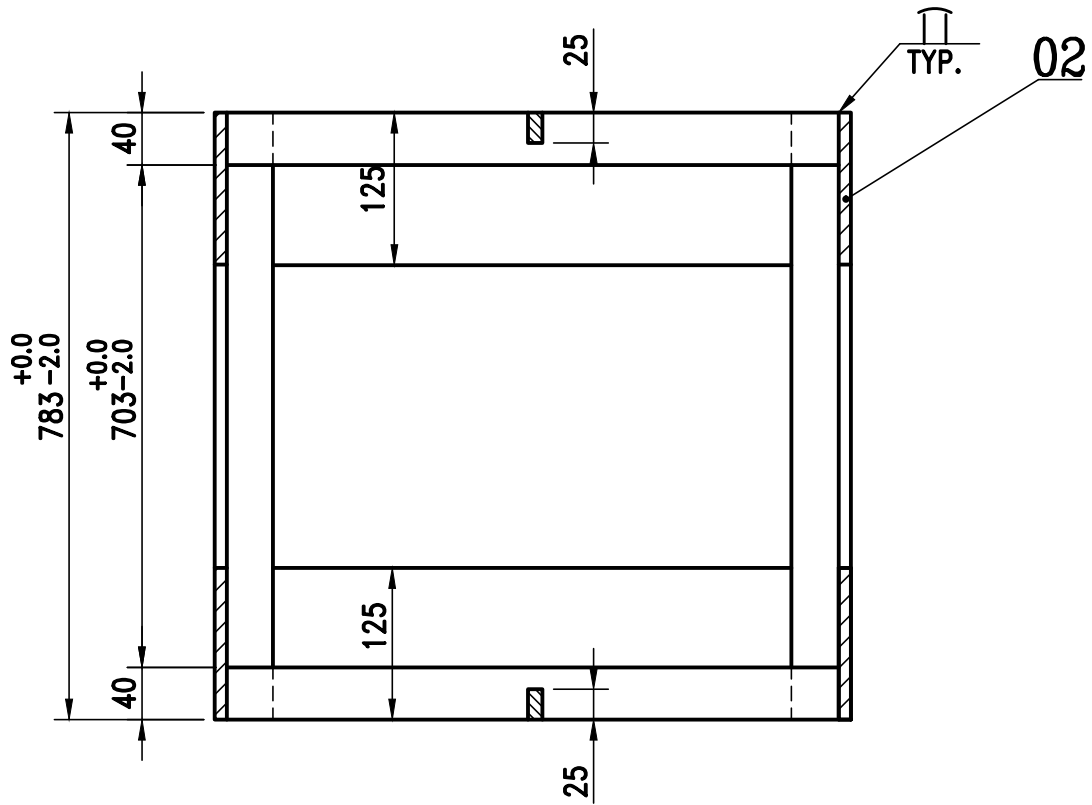
VIEW FROM TOP



OUTSTRETCHED VIEW



FORMED VIEW



SECTION-AA

09	HE CUTTING LIST SH 0.63X700 DU	4-52-010-01190	158117150700 IS 513 DD	353.500	1
08	PL 5X125X471		AA1011808013 IS 2062 GR A	2.310	4
07	75DEG COR ANGLE PL 5X97X783		AA1011808013 IS 2062 GR A	2.980	2
06	105DEG COR ANGLE PL 5X104X783		AA1011808013 IS 2062 GR A	3.200	2
05	SPIDER BAR FL 25X12;282		AA1010308505 IS 2062 GR A	0.664	4
04	SPIDER BAR FL 25X12;185		AA1010308505 IS 2062 GR A	0.435	4
03	HOLDING BAR FL 40X16;514		AA1010308599 IS 2062 GR A	2.582	6
02	OUTER END PLATE PL 5X125X983		AA1011808013 IS 2062 GR A	4.892	2
01	INNER END PLATE PL 5X125X703		AA1011808013 IS 2062 GR A	3.513	2

VAR NO	ITEM NO	DESCRIPTION	CAT	DRAWING No.	ITEM NO VAR NO	MATL CODE	A/P/C	UNIT DI	UNIT WT QTY	G.S	ZONE
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TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT											
Bharat Heavy Electricals Ltd.				DRN	NAME	SIGN	DATE	NO. OF VAR.			
UNIT: BOILER AUXILIARIES PLANT.				CHD	CPS	Sd..	06.05.83				
RANIPET - 632 406.				APPD	PJ	Sd..					
DEPT AP				GRADE OF UNTOL DIM	SCALE	WEIGHT (KG).	REF. TO ASSY/OLD DRG.		ITEM NO.	NO. OF ITEMS	
CODE 852				PR: QA: 500	NTS	411.798					
TITLE				CARD CODE				DRAWING NO.		REV	
ASSY OF BASKET-C				U 01				2-52-010-00678		02	

REV	DATE	ALTERED A.K
02	05.12.11	CHECKED RSB
ZONE	BASKET IMPROVED DESIGN INTRODUCED AND TOTAL WEIGHT WAS 409.500	

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.

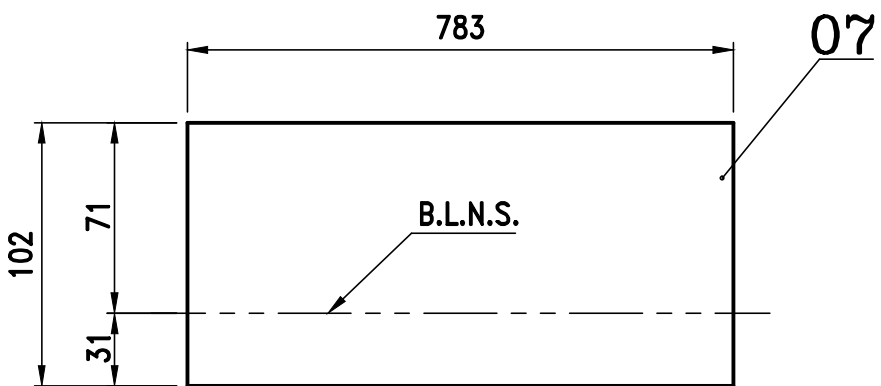
6/900-010-75-2
DRAWING NO.

ALL DIMENSIONS ARE IN MILLIMETRES

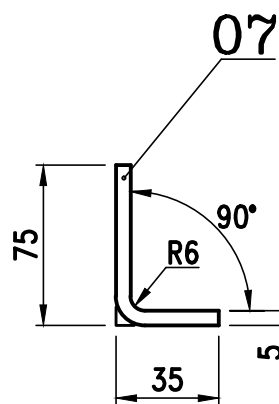
FOR PRODUCTION
REF.: PR:QA:590 FOR PAINTING
REF.: PR:QA:500 FOR UNTOL. DIMS.
REF.: APPLICABLE GMS FOR MATL CODE & SPEC

SHOP NOTES:-

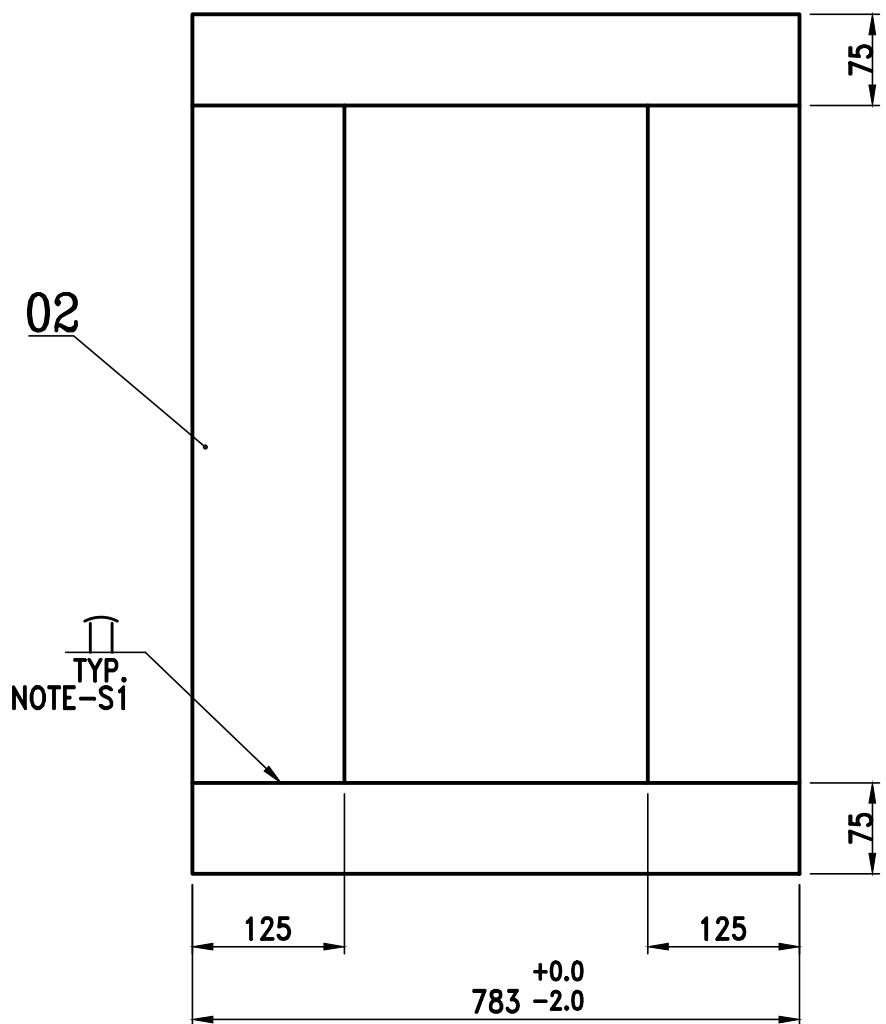
- S-1. ASSEMBLE OUTER END PLATES ITEM NO.02, 75° AND 90° CORNER ANGLES BEFORE WELDING TO BASKET.
- S-2. INSTALL ELEMENTS BEFORE WELDING OUTER END PLATE ASSY IN PLACE
- S-3. ALL OUTSIDE WELDS TO BE HALF 'V' EDGE PREPARED, WELDED AND FLUSH GROUND TO ENSURE EASY INSERTION OF BASKETS IN THE ROTOR COMPARTMENTS.
- S-4. PUNCH "BASKET-D" ON THE ASSEMBLY.



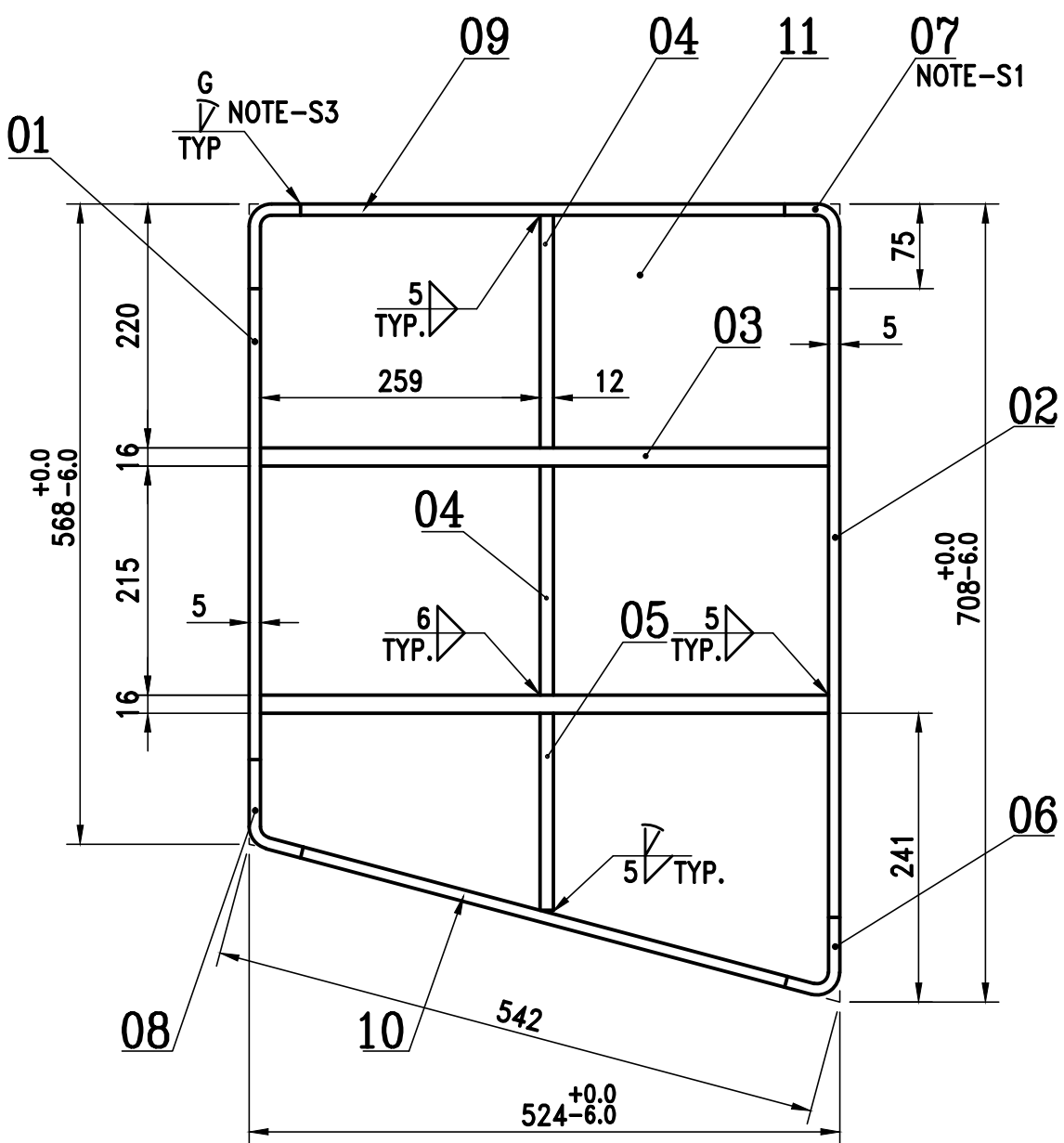
OUTSTRETCHED VIEW



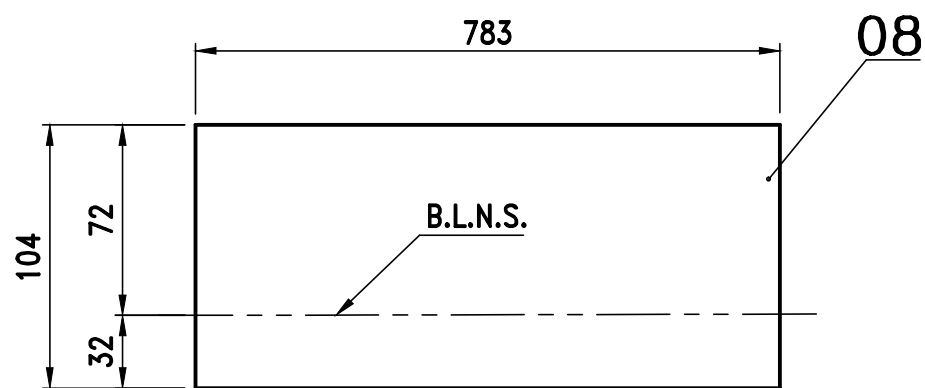
FORMED VIEW



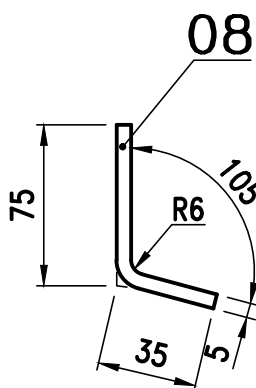
VIEW FROM RIGHT



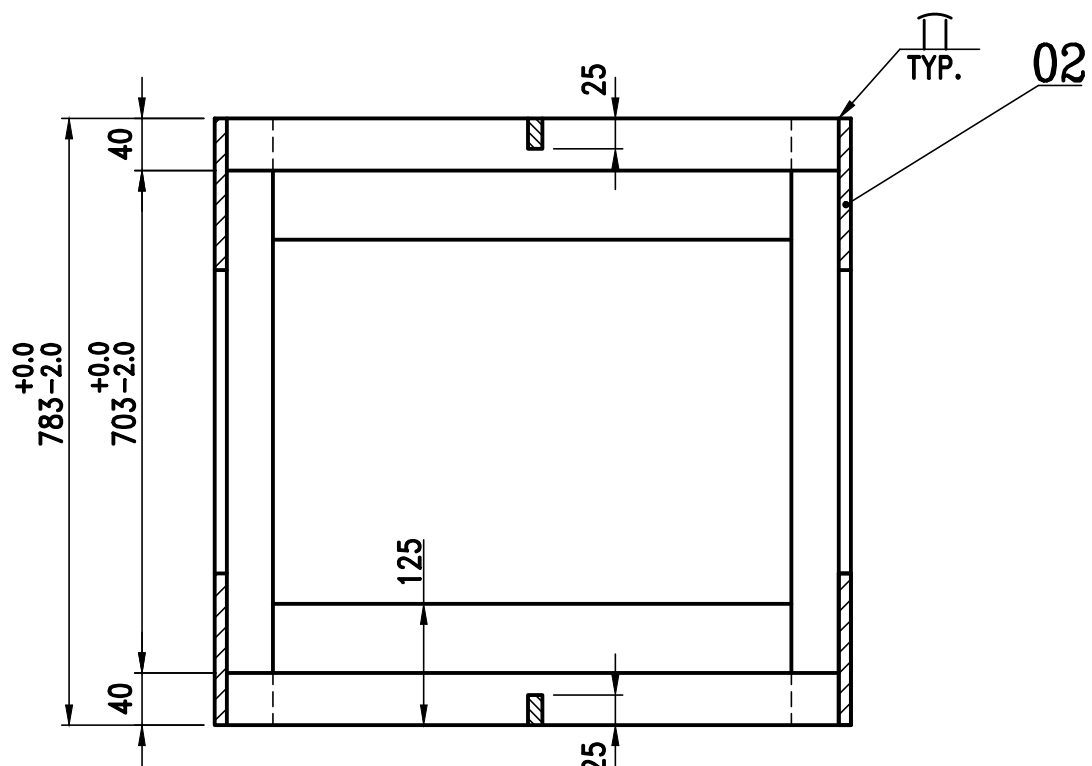
VIEW FROM TOP



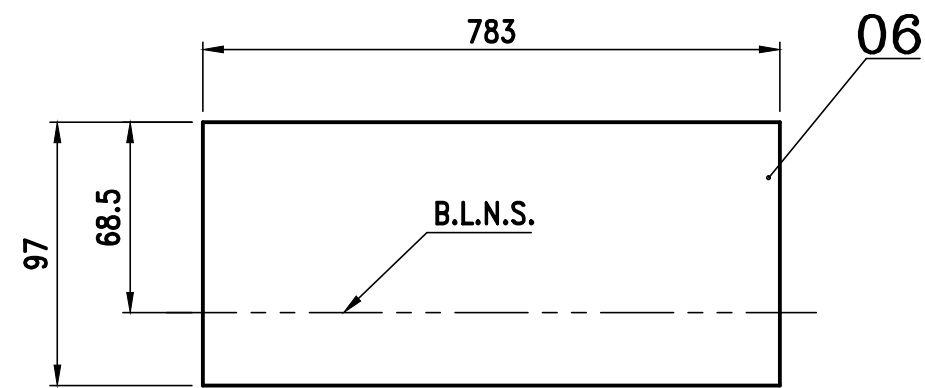
OUTSTRETCHED VIEW



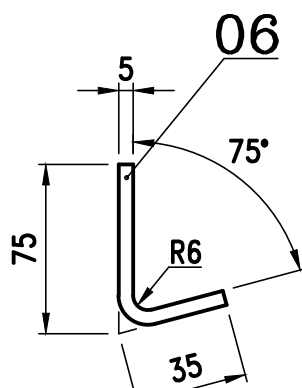
FORMED VIEW



SECTION-AA



OUTSTRETCHED VIEW



FORMED VIEW

11	HE CUTTING LIST SH 0.63X700 DU	4-52-010-01191	158117150700	226.100
			IS 513 DD	1
10	PL 5X125X471		AA1011808013	2.310
			IS 2062 GR A	2
09	PL 5X125X453		AA1011808013	2.220
			IS 2062 GR A	2
08	105DEG COR ANG PL 5X104X783		AA1011808013	3.200
			IS 2062 GR A	1
07	90DEG COR ANGL PL 5X102X783		AA1011808013	3.140
			IS 2062 GR A	2
06	75DEG COR ANGLE PL 5X97X783		AA1011808013	2.980
			IS 2062 GR A	1
05	SPIDER BAR FL 25X12;167		AA1010308505	0.394
			IS 2062 GR A	2
04	SPIDER BAR FL 25X12;215		AA1010308505	0.506
			IS 2062 GR A	4
03	HOLDING BAR FL 40X16;514		AA1010308599	2.580
			IS 2062 GR A	4
02	OUTER END PLATE PL 5X125X558		AA1011808013	2.740
			IS 2062 GR A	2
01	INNER END PLATE PL 5X125X418		AA1011808013	2.050
			IS 2062 GR A	2

VAR NO	ITEM NO	DESCRIPTION	CAT	DRAWING No.	ITEM NO VAR NO	MATL CODE	MATL SPECN	A/P/C	UNIT DI	UNIT WT QTY	G.S	ZONE
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TYPE OF PRODUCT
OR NAME OF
CUSTOMER/PROJECT



BHARAT HEAVY ELECTRICALS LTD.,
UNIT: BOILER AUXILIARIES PLANT.
RANIPET - 632 406.

DRN	NAME	SIGN	DATE	NO. OF VAR.
CHD	BALU K	Sd..	06.05.83	
APPD	CPS	Sd..		
	PJ	Sd..		

DEPT AP	GRADE OF UNTOL DIM PR: QA: 500	SCALE NTS	WEIGHT (KG). 270.332	REF. TO ASSY/OLD DRG.	ITEM NO.	NO. OF ITEMS
CODE 852						

ASSY OF BASKET-D

CARD CODE U 01	DRAWING NO. 2-52-010-00679	REV 02
----------------------	-------------------------------	-----------

REV 02	DATE 05.12.11	ALTERED A.K Sd..
		CHECKED RSB Sd..
ZONE		

BASKET IMPROVED DESIGN INTRODUCED
AND TOTAL WEIGHT WAS 266.760

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.

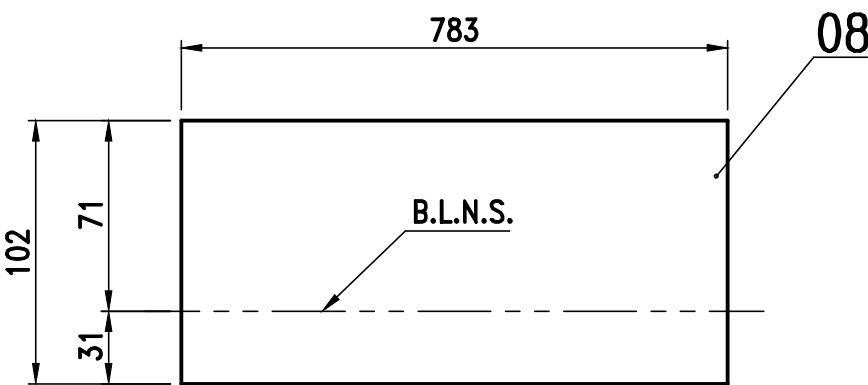
08900-010-75-7
DRAWING NO.

ALL DIMENSIONS ARE IN MILLIMETRES

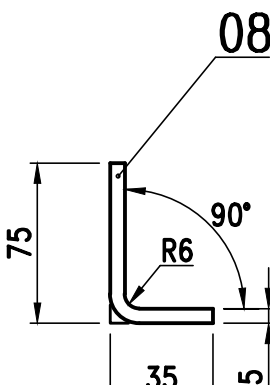
FOR PRODUCTION
REF.: PR:QA:590 FOR PAINTING
REF.: PR:QA:500 FOR UNTOL. DIMS.
REF.: APPLICABLE GMS FOR MATL CODE & SPEC

SHOP NOTES:-

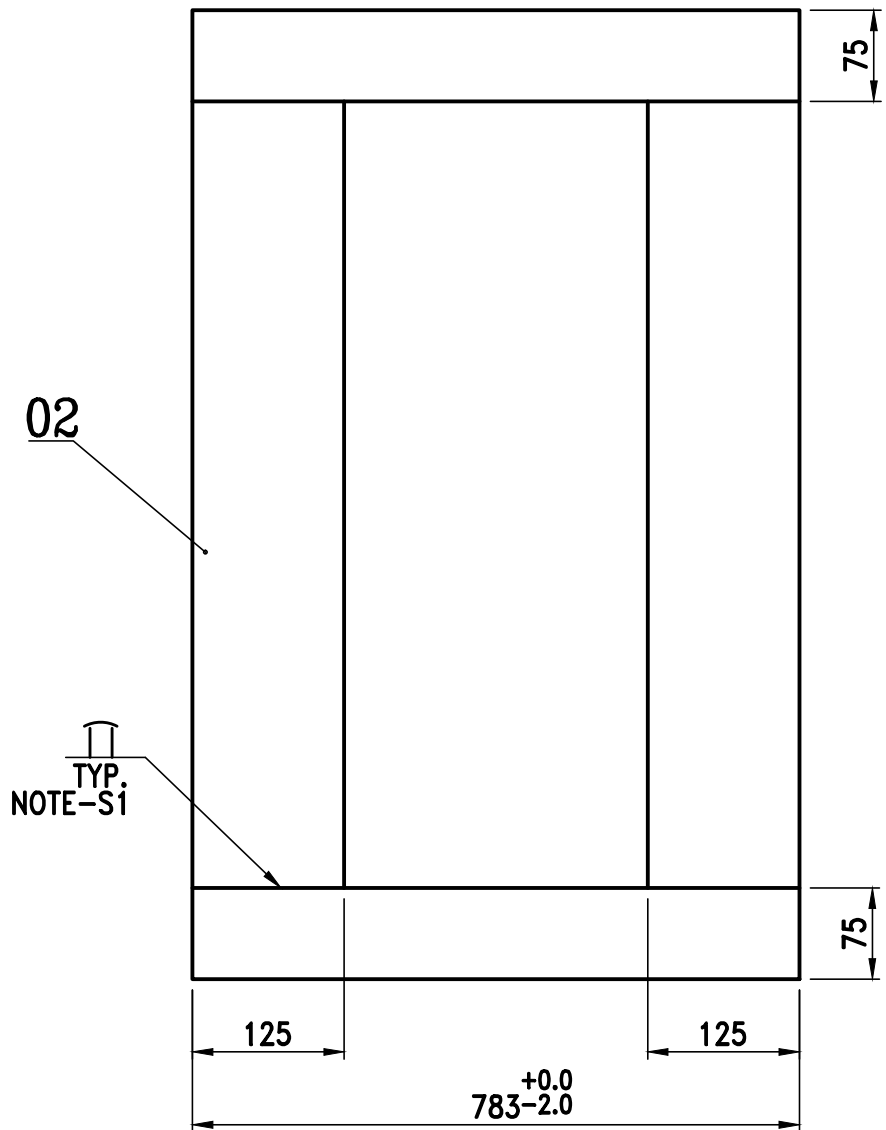
- S-1. ASSEMBLE OUTER END PLATES ITEM NO.02, 75° AND 90° CORNER ANGLES BEFORE WELDING TO BASKET.
S-2. INSTALL ELEMENTS BEFORE WELDING OUTER END PLATE ASSY IN PLACE
S-3. ALL OUTSIDE WELDS TO BE HALF 'V' EDGE PREPARED, WELDED AND FLUSH GROUND TO ENSURE EASY INSERTION OF BASKETS IN THE ROTOR COMPARTMENTS.
S-4. PUNCH "BASKET-E" ON THE ASSEMBLY.



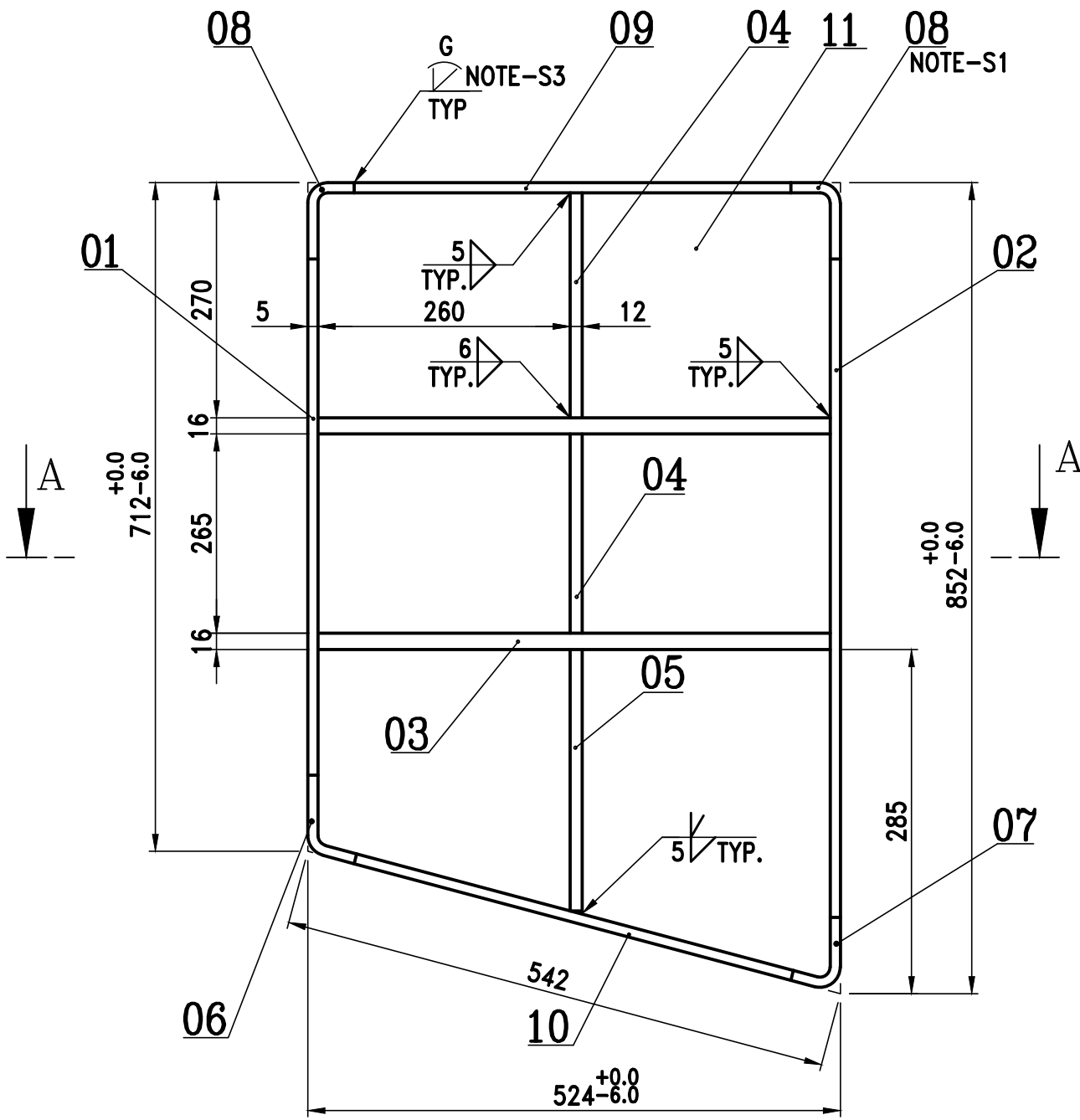
OUTSTRETCHED VIEW



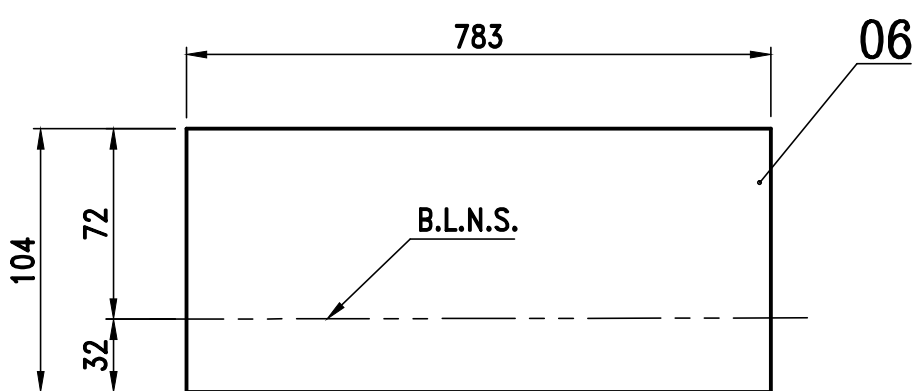
FORMED VIEW



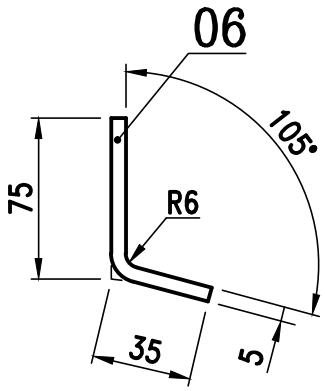
VIEW FROM RIGHT



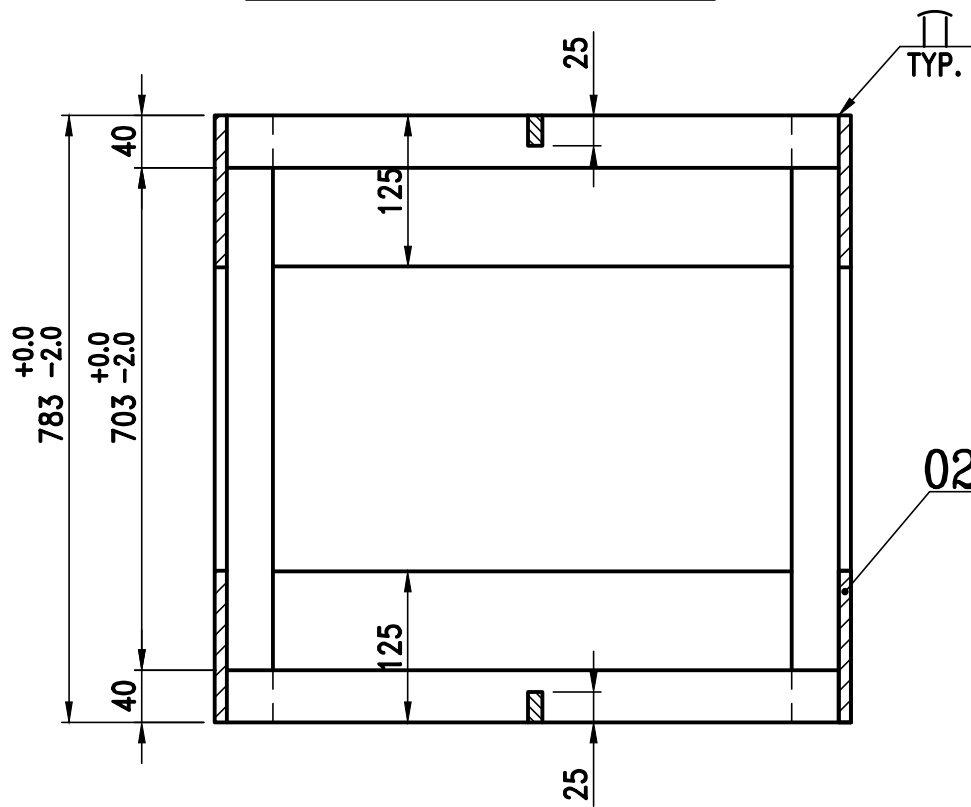
VIEW FROM TOP



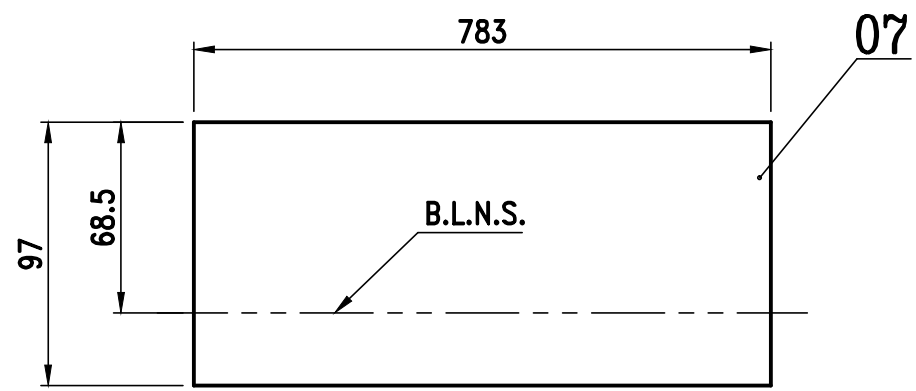
OUTSTRETCHED VIEW



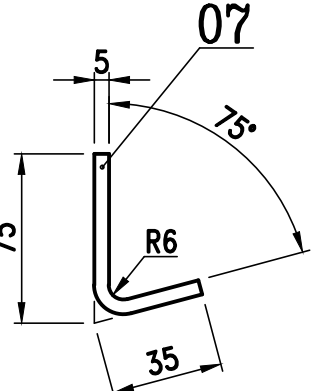
FORMED VIEW



SECTION-AA



OUTSTRETCHED VIEW



FORMED VIEW

VAR NO	ITEM NO	DESCRIPTION	CAT	DRAWING No.	ITEM NO VAR NO	MATL CODE MATL SPECN	A/P/C DI	UNIT QTY	UNIT WT	G.S	ZONE
	11	HE CUTTING LIST SH 0.63X700 DU		4-52-010-01192		158117150700 IS 513 DD		277.900	1		
	10	PL 5X125X471				AA1011808013 IS 2062 GR A		2.311	2		
	09	PL 5X125X453				AA1011808013 IS 2062 GR A		2.223	2		
	08	90DEG COR ANGLE PL 5X102X783				AA1011808013 IS 2062 GR A		3.140	2		
	07	75DEG COR ANGLE PL 5X97X783				AA1011808013 IS 2062 GR A		2.980	1		
	06	105DEG COR ANGLE PL 5X104X783				AA1011808013 IS 2062 GR A		3.200	1		
	05	SPIDER BAR FL 25X12;211				AA1010308505 IS 2062 GR A		0.497	2		
	04	SPIDER BAR FL 25X12;265				AA1010308505 IS 2062 GR A		0.624	4		
	03	HOLDING BAR FL 40X16;514				AA1010308599 IS 2062 GR A		2.580	4		
	02	OUTER END PLATE PL 5X125X702				AA1011808013 IS 2062 GR A		3.440	2		
	01	INNER END PLATE PL 5X125X562				AA1011808013 IS 2062 GR A		2.760	2		

TYPE OF PRODUCT
OR NAME OF
CUSTOMER/PROJECT



BHARAT HEAVY ELECTRICALS LTD.,
UNIT: BOILER AUXILIARIES PLANT.
RANIPET - 632 406.

DRN	NAME	SIGN	DATE	NO. OF VAR.
CHD	C P SANKAR	Sd..	11.02.82	
APPD	N MANOHAR	Sd..		

DEPT	GRADE OF UNTOL DIM	SCALE	WEIGHT (KG).	REF. TO ASSY/OLD DRG.	ITEM NO.	NO. OF ITEMS
AP	PR: QA: 500	NTS	325.638			

ASSY OF BASKET-E

CARD CODE	DRAWING NO.	REV
U 01	2-52-010-00680	03

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.

REV	DATE	ALTERED A.K
03	05.12.11	CHECKED RSB
ZONE	BASKET IMPROVED DESIGN INTRODUCED AND TOTAL WEIGHT WAS 329.500	

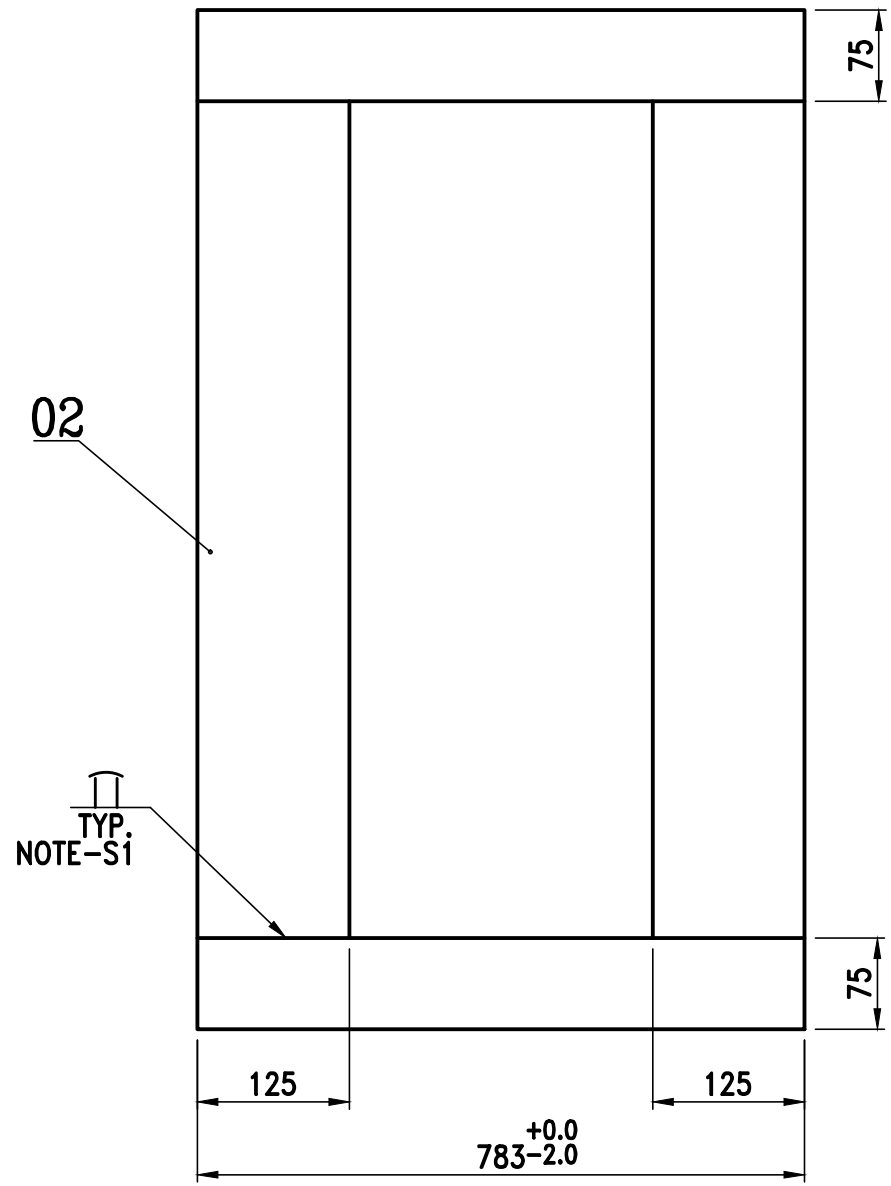
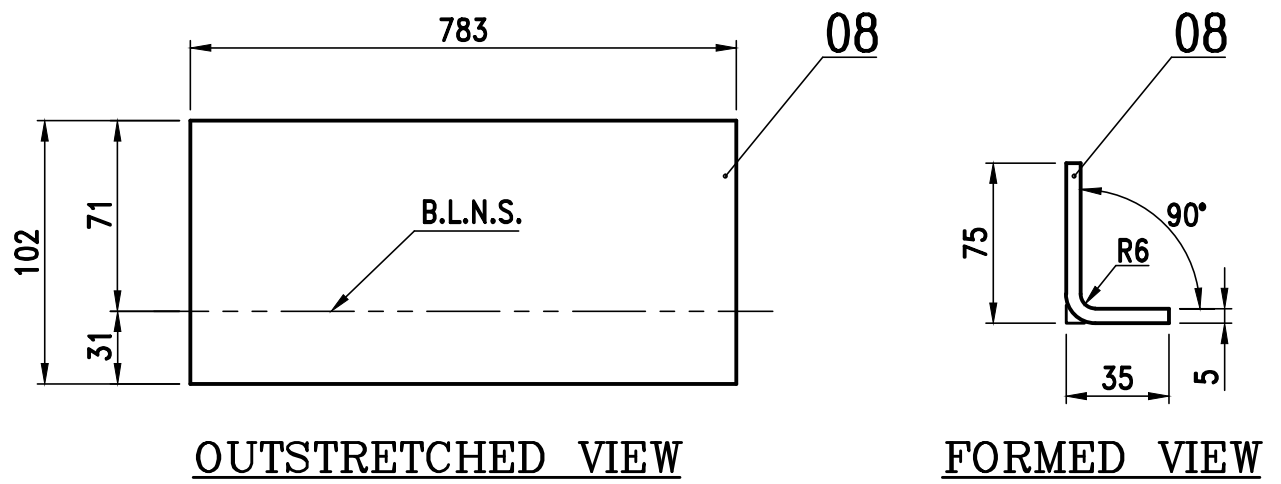
18900-010-75-2
DRAWING NO.

ALL DIMENSIONS ARE IN MILLIMETRES

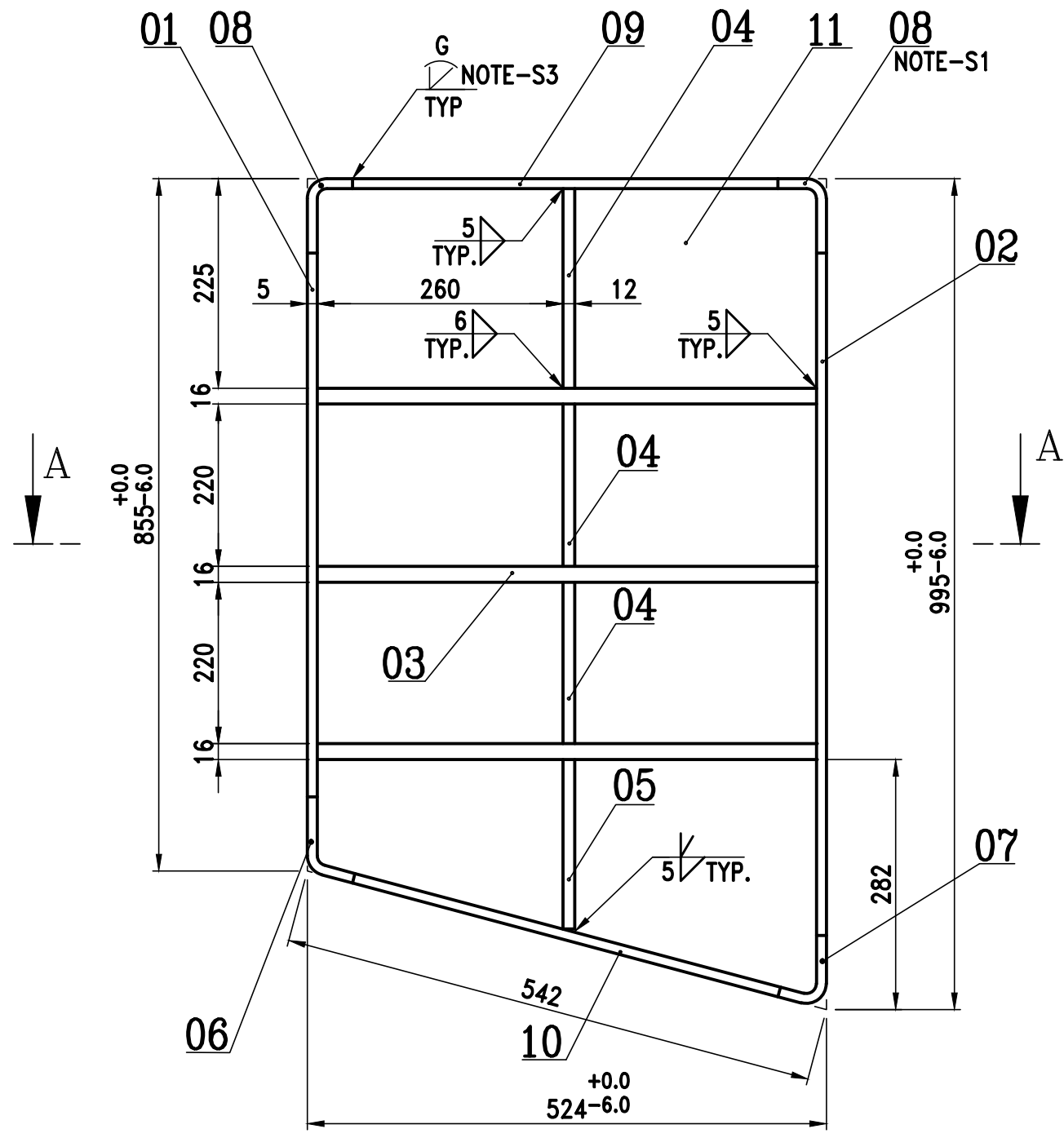
FOR PRODUCTION
REF.: PR:QA:590 FOR PAINTING
REF.: PR:QA:500 FOR UNTOL. DIMS.
REF.: APPLICABLE GMS FOR MATL CODE & SPEC

SHOP NOTES:-

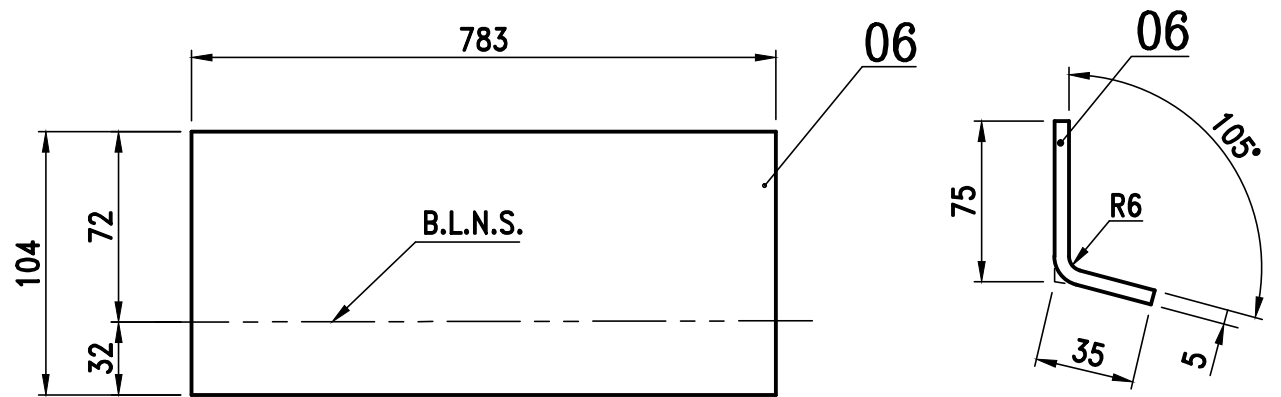
- S-1. ASSEMBLE OUTER END PLATES ITEM NO.02, 75° AND 90° CORNER ANGLES BEFORE WELDING TO BASKET.
S-2. INSTALL ELEMENTS BEFORE WELDING OUTER END PLATE ASSY IN PLACE
S-3. ALL OUTSIDE WELDS TO BE HALF 'V' EDGE PREPARED, WELDED AND FLUSH GROUND TO ENSURE EASY INSERTION OF BASKETS IN THE ROTOR COMPARTMENTS.
S-4. PUNCH "BASKET-F" ON THE ASSEMBLY.



VIEW FROM RIGHT

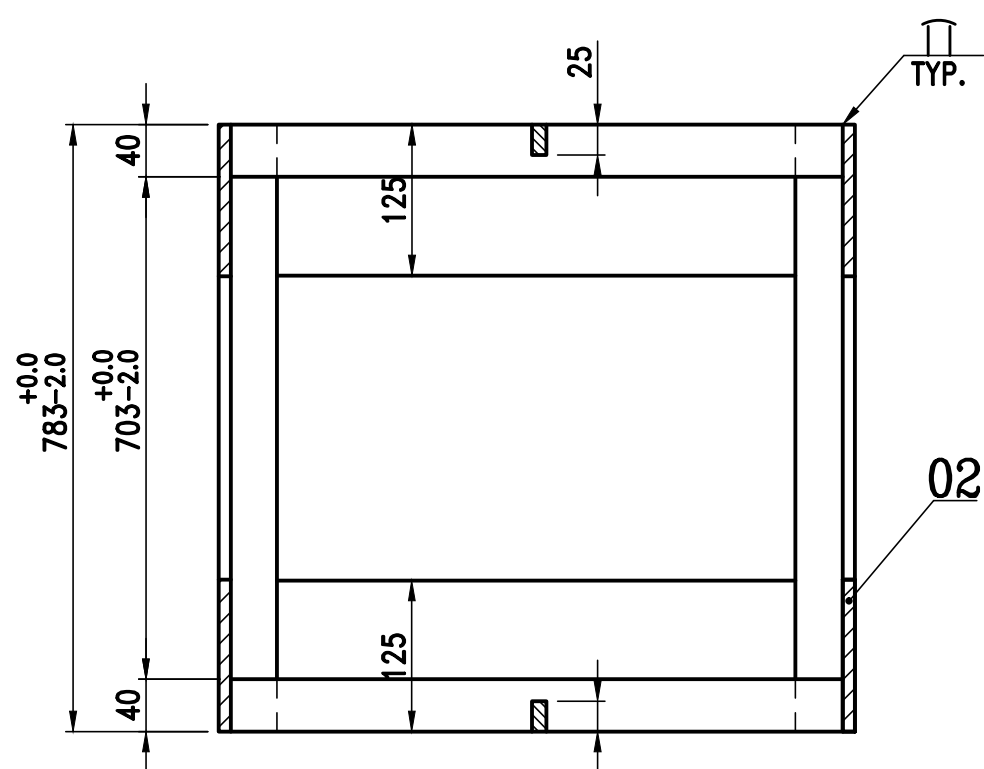


VIEW FROM TOP

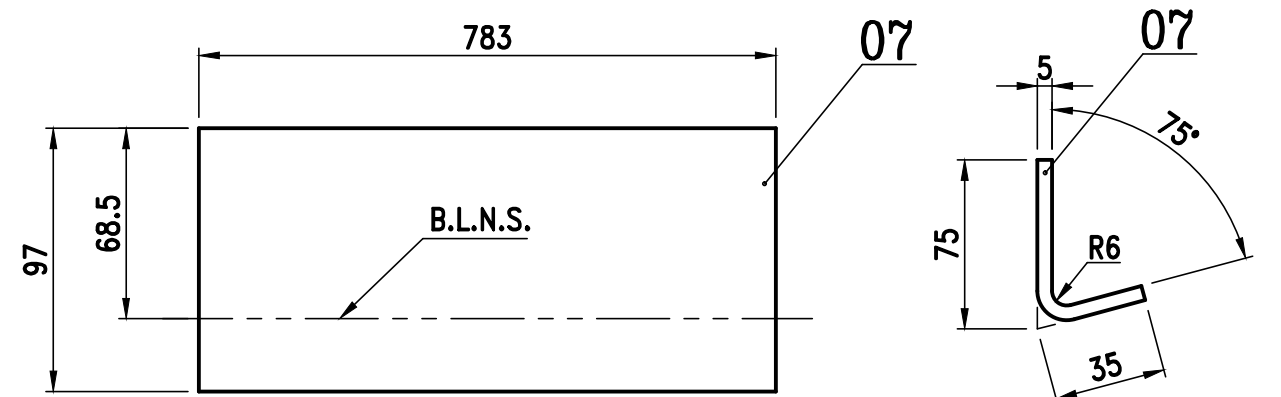


OUTSTRETCHED VIEW

FORMED VIEW



SECTION-AA



OUTSTRETCHED VIEW

FORMED VIEW

VAR NO	ITEM NO	DESCRIPTION	CAT	DRAWING No.	ITEM NO VAR NO	MATL CODE	MATL SPECN	A/P/C	UNIT DI	UNIT WT QTY	G.S	ZONE
	11	HE CUTTING LIST SH 0.63X700 DU		4-52-010-01193		158117150700				329.700		
						IS 513 DD				1		
	10	PL 5X125X471				AA1011808013				2.311		
						IS 2062 GR A				2		
	09	PL 5X125X453				AA1011808013				2.223		
						IS 2062 GR A				2		
	08	90DEG COR ANGLE PL 5X102X783				AA1011808013				3.140		
						IS 2062 GR A				2		
	07	75DEG COR ANGLE PL 5X97X783				AA1011808013				2.980		
						IS 2062 GR A				1		
	06	105DEG COR ANGLE PL 5X104X783				AA1011808013				3.200		
						IS 2062 GR A				1		
	05	SPIDER BAR FL 25X12;208				AA1010308505				0.490		
						IS 2062 GR A				2		
	04	SPIDER BAR FL 25X12;220				AA1010308505				0.518		
						IS 2062 GR A				6		
	03	HOLDING BAR FL 40X16;514				AA1010308599				2.580		
						IS 2062 GR A				6		
	02	OUTER END PLATE PL 5X125X845				AA1011808013				4.146		
						IS 2062 GR A				2		
	01	INNER END PLATE PL 5X125X705				AA1011808013				3.460		
						IS 2062 GR A				2		

TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT											
BHARAT HEAVY ELECTRICALS LTD., UNIT: BOILER AUXILIARIES PLANT. RANIPET - 632 406.											
DRN	NAME	SIGN	DATE	NO. OF VAR.	CHD	CPS	Sd..	APPD	PJ	Sd..	
DRPT AP	GRADE OF UNTOL DIM	SCALE	WEIGHT (KG).	REF. TO ASSY/OLD DRG.	ITEM NO.	NO. OF ITEMS					
CODE 852	PR: QA: 500	NTS	386.008								
ASSY OF BASKET-F							CARD CODE	DRAWING NO.		REV	
							U 01	2-52-010-00681		03	

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.

REV	DATE	ALTERED A.K
03	05.12.11	CHECKED RSB
ZONE BASKET IMPROVED DESIGN INTRODUCED AND TOTAL WEIGHT WAS 389.994		

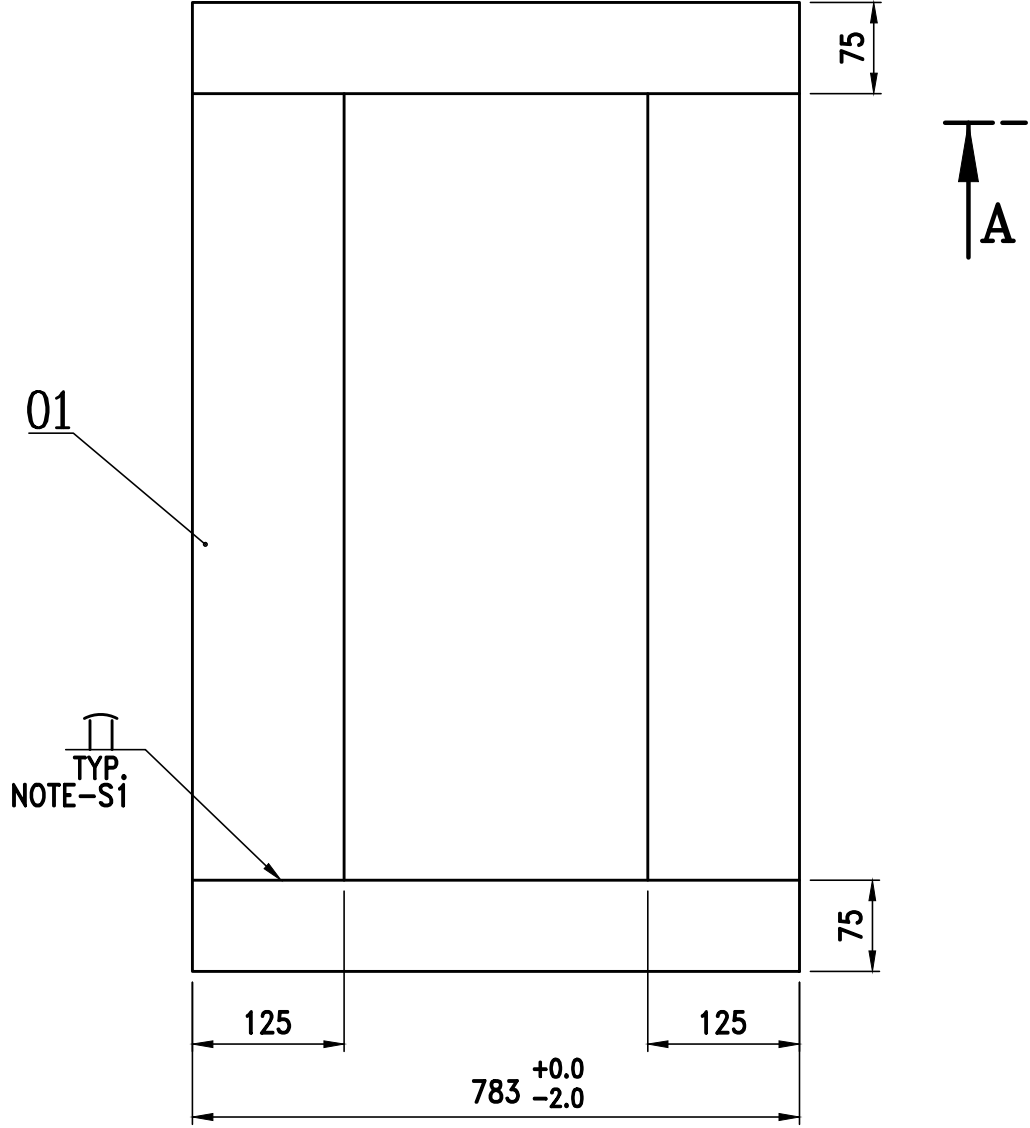
28900-010-25-2
DRAWING NO.

ALL DIMENSIONS ARE IN MILLIMETRES

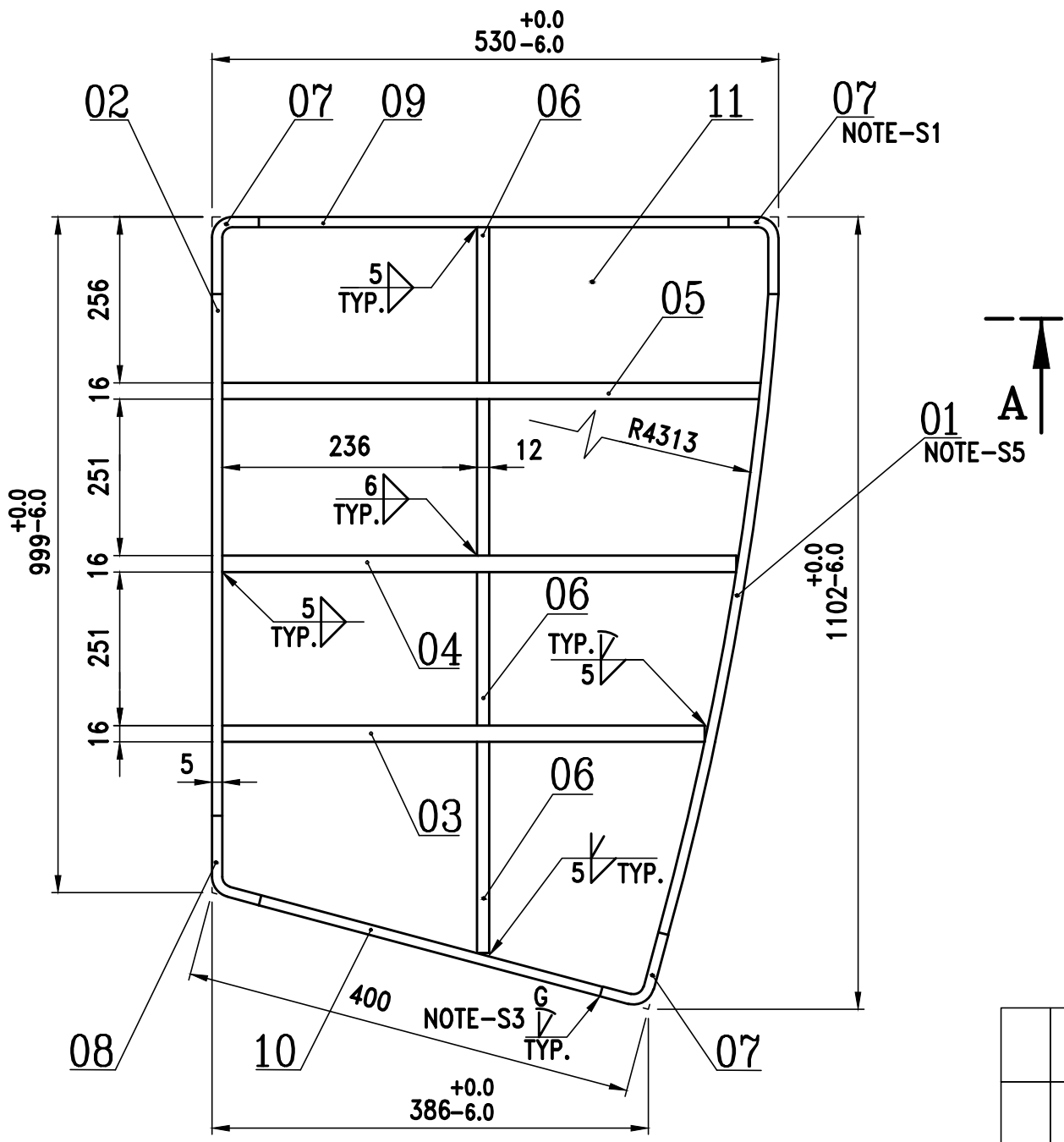
FOR PRODUCTION
REF.: PR:QA:590 FOR PAINTING
REF.: PR:QA:500 FOR UNTOL. DIMS.
REF.: APPLICABLE GMS FOR MATL CODE & SPEC

SHOP NOTES:-

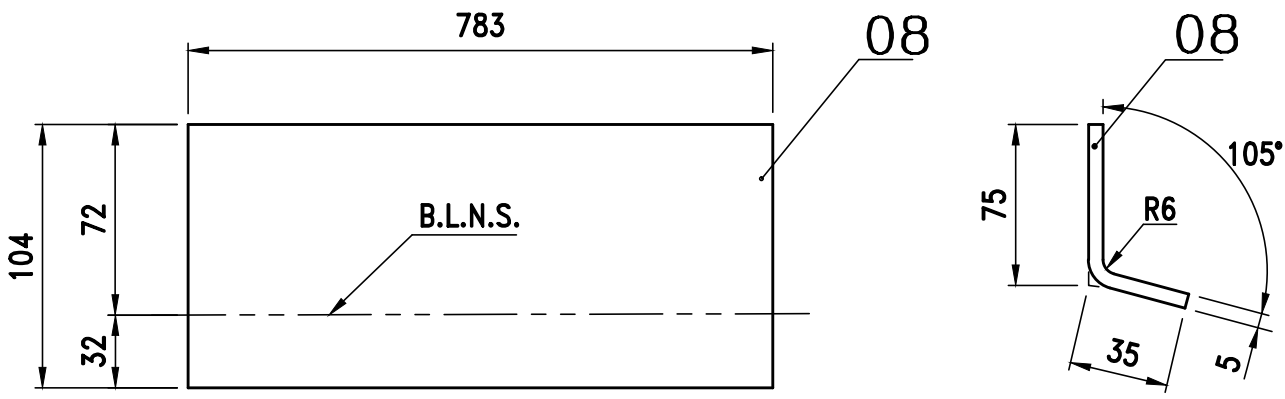
- S-1. ASSEMBLE OUTER END PLATES ITEM NO.01, AND 90° CORNER ANGLES ITEM NO.07 BEFORE WELDING TO BASKET.
S-2. INSTALL ELEMENTS BEFORE WELDING OUTER END PLATE ASSY IN PLACE.
S-3. ALL OUTSIDE WELDS TO BE HALF 'V' EDGE PREPARED, WELDED AND FLUSH GROUND TO ENSURE EASY INSERTION OF BASKETS IN THE ROTOR COMPARTMENTS.
S-4. PUNCH "BASKET-G27" ON THE ASSEMBLY.
S-5. ROLL ITEM NO. 01 TO IR.4313.



VIEW FROM RIGHT

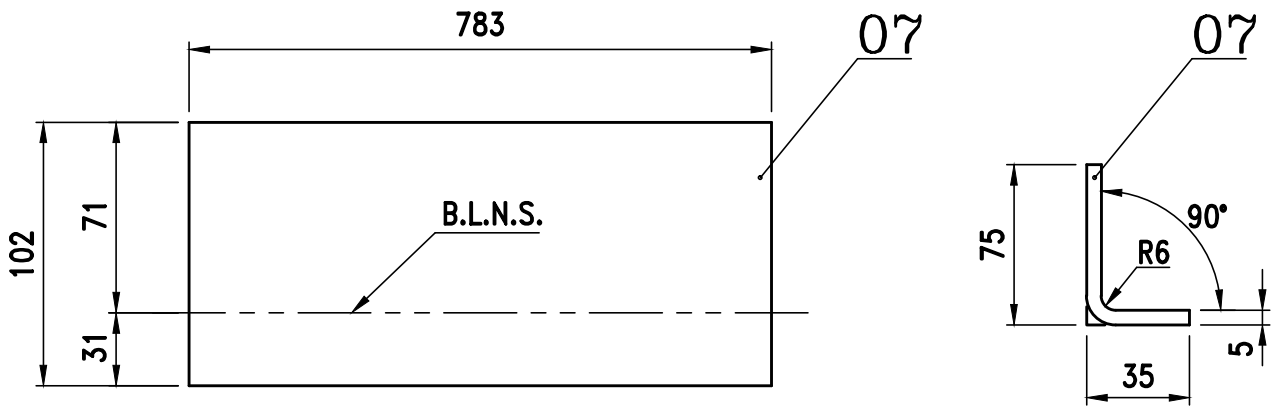


VIEW FROM TOP



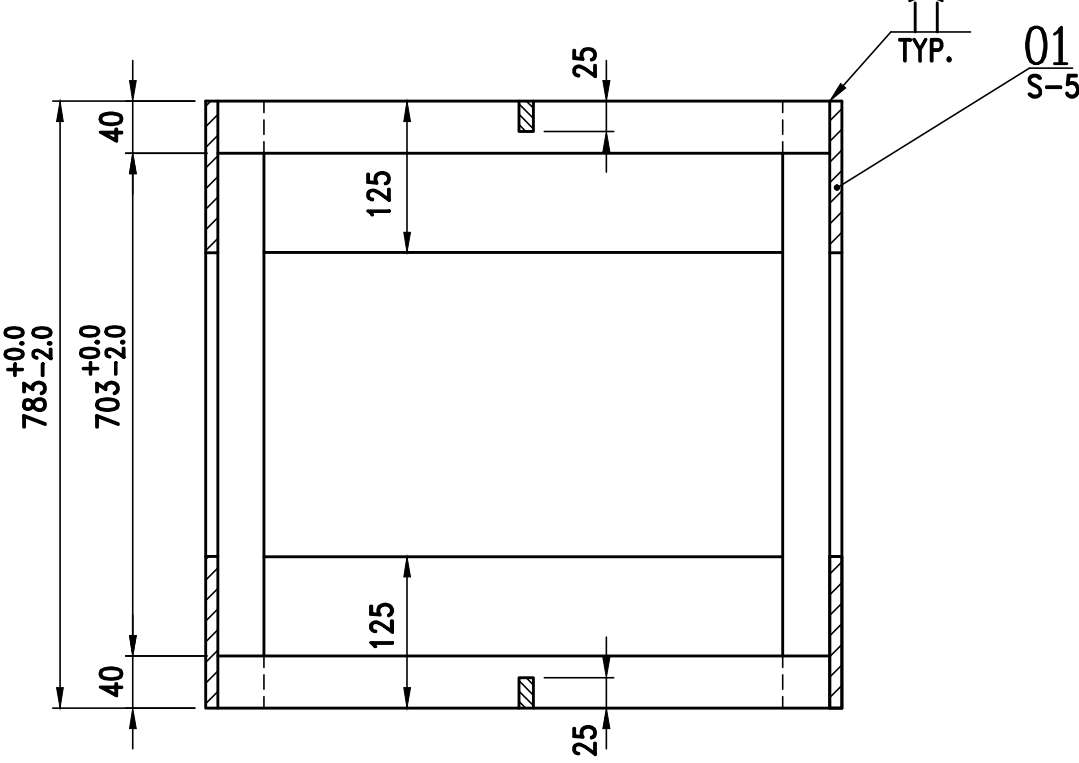
OUTSTRETCHED VIEW

FORMED VIEW



OUTSTRETCHED VIEW

FORMED VIEW



SECTION-AA

	11	HE CUTTING LIST SH 0.63X700 DU		4-52-010-01194		158117150700			347.200		
						IS 513 DD			1		
	10	PL.5x125x329				AA1011808013			1.614		
						IS 2062 GR A			2		
	09	PL.5x125x459				AA1011808013			2.252		
						IS 2062 GR A			2		
	08	105DEG.COR.ANGLE PL.5x104x783				AA1011808013			3.200		
						IS 2062 GR A			1		
	07	90 DEG.COR.ANGLE PL.5x102x783				AA1011808013			3.140		
						IS 2062 GR A			3		
	06	SPIDER BAR F25x12; 251				AA1010308505			0.590		
						IS 2062 GR A			8		
	05	HOLDING BAR F40x16; 511				AA1010308599			2.567		
						IS 2062 GR A			2		
	04	HOLDING BAR F40x16; 486				AA1010308599			2.440		
						IS 2062 GR A			2		
	03	HOLDING BAR F40x16; 443				AA1010308599			2.226		
						IS 2062 GR A			2		
	02	INNER END PLATE PL.5x125x849				AA1011808013			4.160		
						IS 2062 GR A			2		
	01	OUTER END PLATE PL.5x125x964				AA1011808013			4.730		
						IS 2062 GR A			2		
VAR NO	ITEM NO	DESCRIPTION	CAT	DRAWING No.	ITEM NO VAR NO	MATL CODE MATL SPECN	A/P/C DI	UNIT QTY	UNIT WT	G.S	ZONE

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TYPE OF PRODUCT
OR NAME OF
CUSTOMER/PROJECT

BHARAT HEAVY ELECTRICALS LTD.,
UNIT: BOILER AUXILIARIES PLANT.
RANIPET - 632 406.

DRN BALU K NAME
CHD CPS SIGN
APPD PJ DATE
06.05.83

DEPT AP GRADE OF UNTOL DIM SCALE WEIGHT (KG). REF. TO ASSY/OLD DRG. ITEM NO. NO. OF ITEMS
CODE 852 PR: QA: 500 NTS 404.518

TITLE ASSY OF BASKET-G27 CARD CODE U 01 DRAWING NO. 2-52-010-00682 REV 04

REV 04	DATE 14.03.12	ALTERED A.K	CHECKED RSB	REV 03	DATE 05.12.11	ALTERED A.K	CHECKED RSB
ITEM 07 & 08 DESCRIPTION CORRECTED AND TOTAL WEIGHT WAS 406.913				BASKET IMPROVED DESIGN INTRODUCED AND TOTAL WEIGHT WAS 407.430			

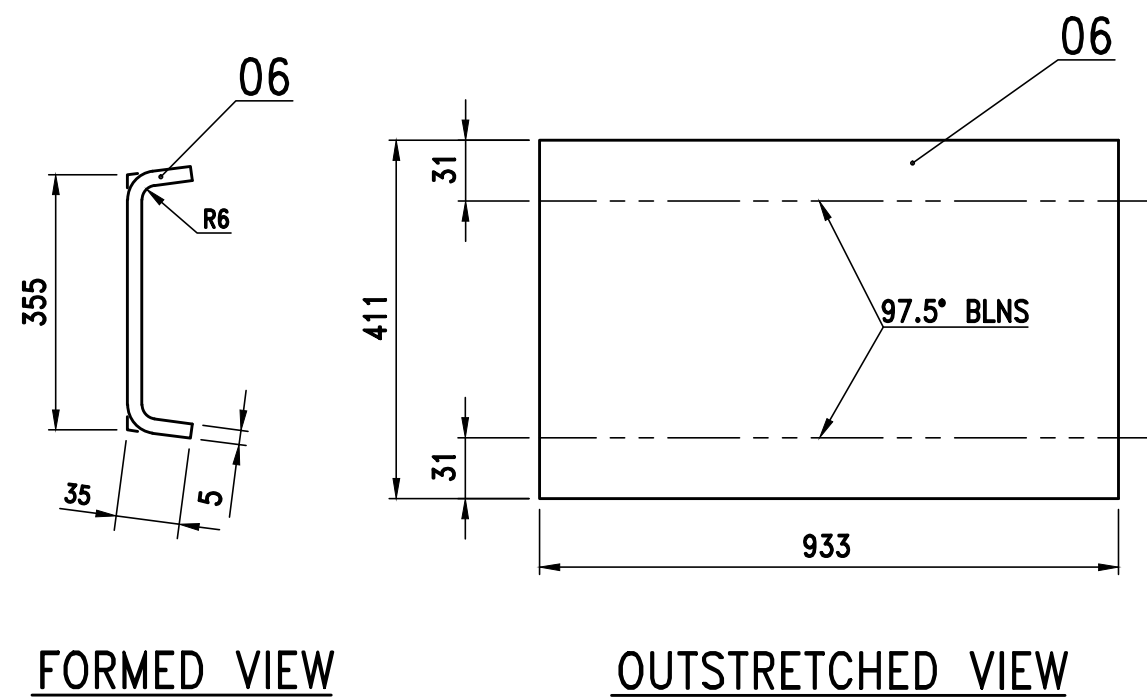
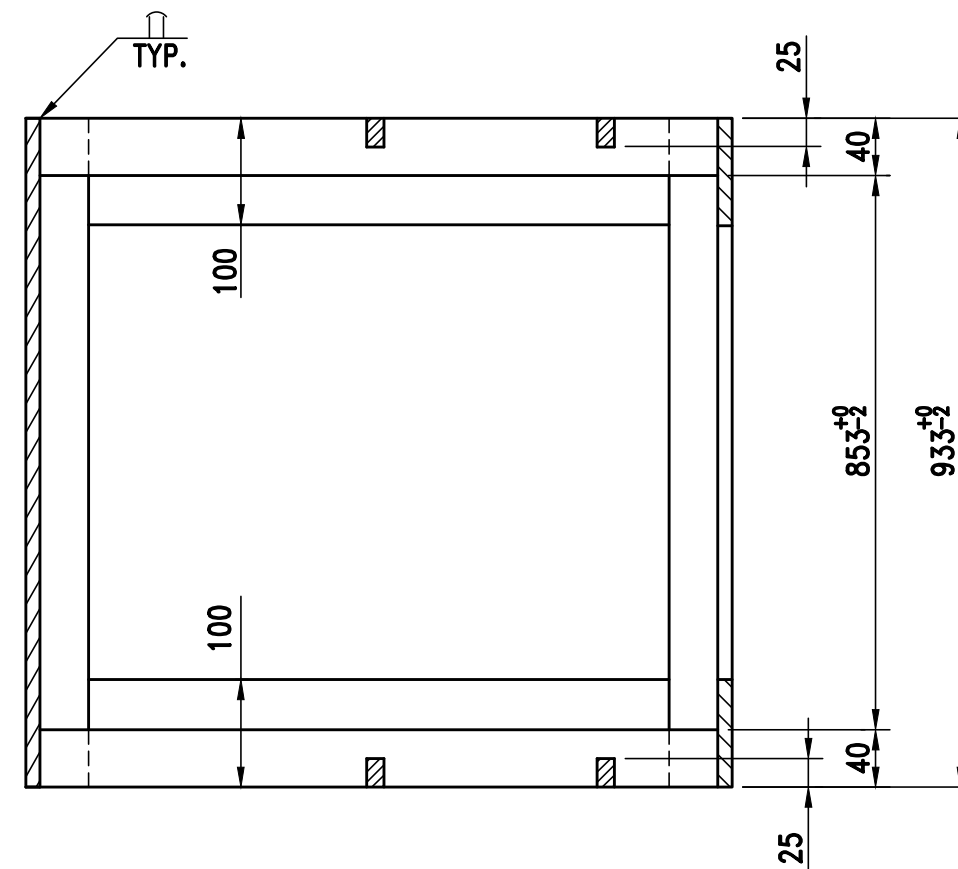
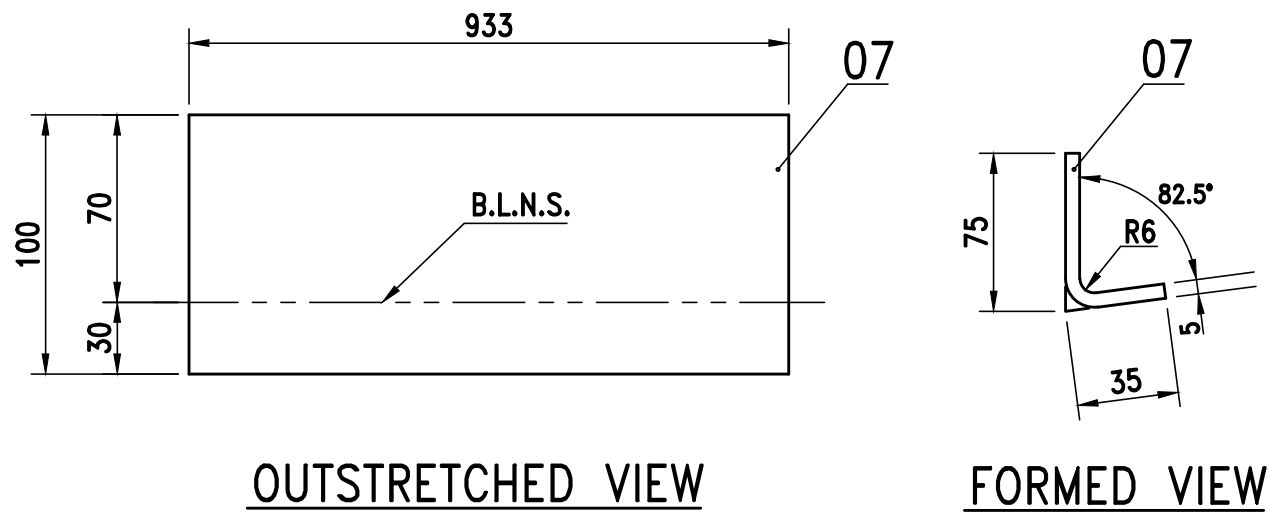
2-52-025-01542
DRAWING NO.

ALL DIMENSIONS ARE IN MILLIMETRES

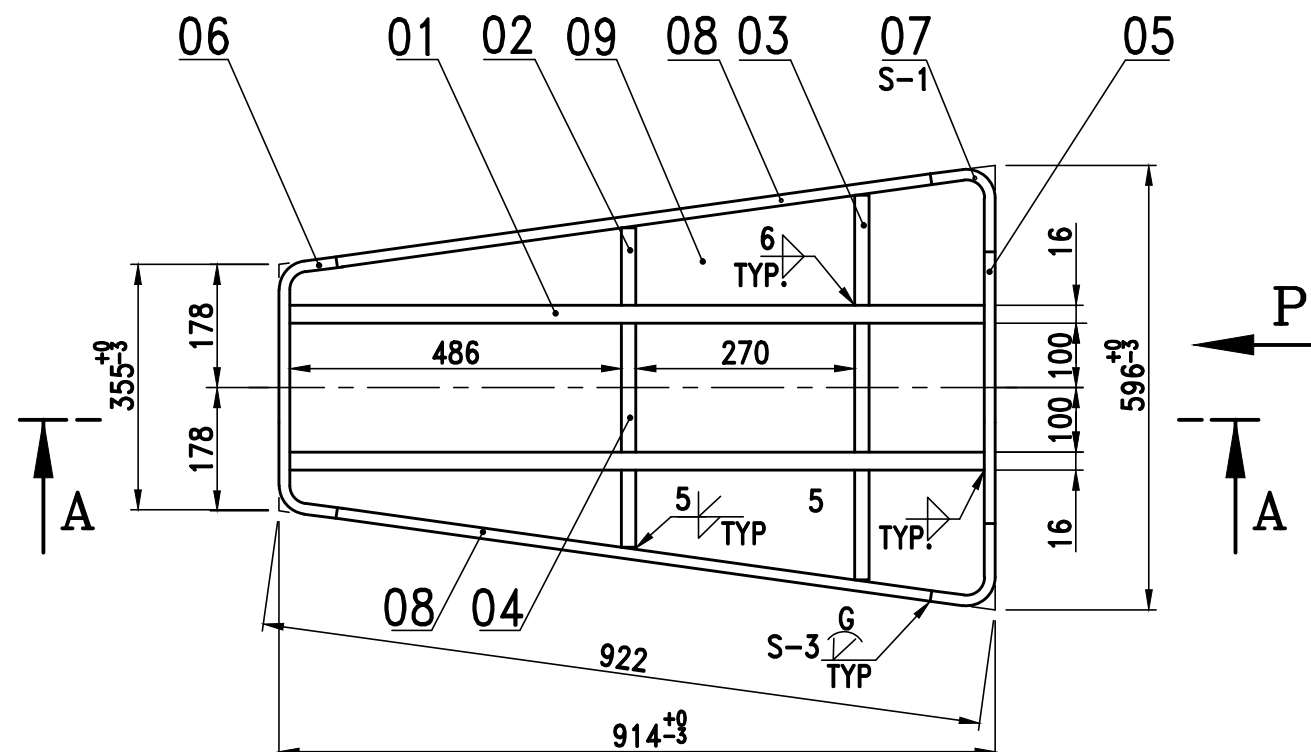
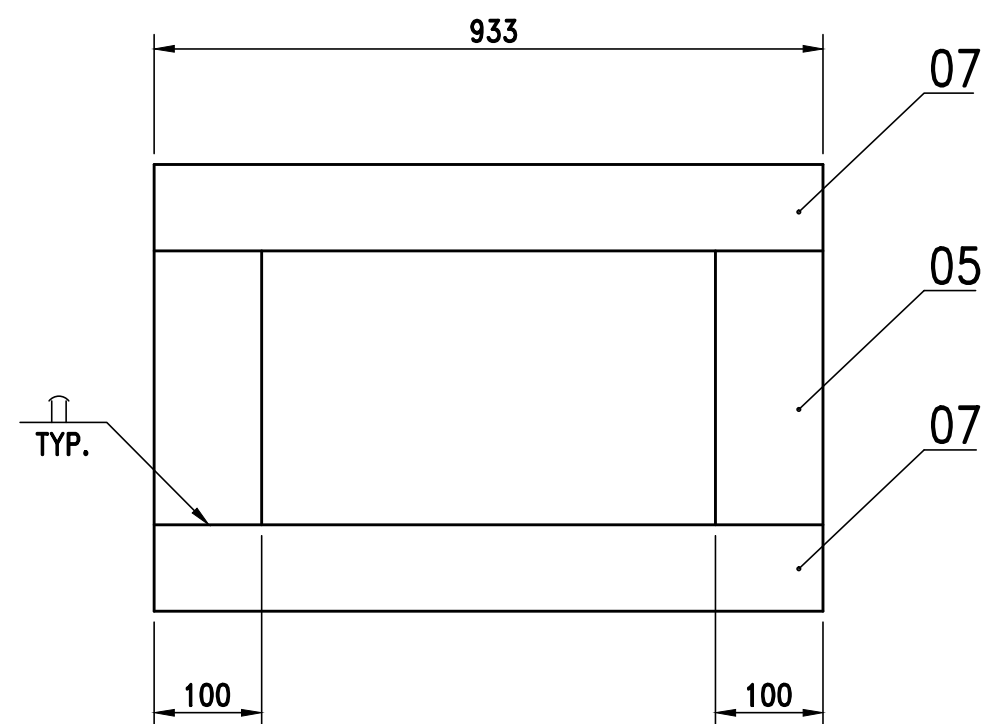
FOR PRODUCTION
REF.: PR:QA:590 FOR PAINTING
REF.: PR:QA:500 FOR UNTOL. DIMS.
REF.: APPLICABLE GMS FOR MATL CODE & SPEC

SHOP NOTES:-

- S-1. ASSEMBLE OUTER END PLATE AND 82.5° ANGLES BEFORE WELDING TO BASKET.
- S-2. INSTALL ELEMENT BEFORE WELDING OUTER END PLATES IN PLACE.
- S-3. ALL OUTSIDE WELDS TO BE HALF 'V' EDGE PREPARED, WELDED AND FLUSH GROUND TO ENSURE EASY INSERTION OF BASKETS IN THE ROTOR COMPARTMENTS.
- S-4. PUNCH "BASKET-A1" ON THE ASSEMBLY.



SECTION-AA



TOP PLAN VIEW

	09	HE CUTTING LIST SH0.8X850 DU		4-52-025-02244		158117180850			450.500		
	08	PL5X100X851				IS 513 DD			1		
					AA1011808013			3.340			
	07	82.5 DEG C.ANGLE PL5X100X933				IS 2062 GR A			4		
					AA1011808013			3.662			
	06	INNER END PLATE PL5X411X933				IS 2062 GRA			2		
					AA1011808013			15.051			
	05	OUTER END PLATE PL5X100X446				IS 2062 GRA			1		
					AA1011808013			1.751			
	04	SPIDER BAR FL25X12-200				IS 2062 GRA			2		
					AA1010308505			0.471			
	03	SPIDER BAR FL25X12-158				IS 2062 GRA			4		
					AA1010308505			0.372			
	02	SPIDER BAR FL25X12-121				IS 2062 GRA			4		
					AA1010308505			0.285			
	01	HOLDING BAR FL40X16-904				IS 2062 GRA			4		
					AA1010308599			4.542			
VAR NO	ITEM NO	DESCRIPTION	CAT	DRAWING No.	ITEM NO VAR NO	MATL CODE MATL SPECN	P/C A/P	UNIT DI	UNIT WT QTY	G.S	ZONE

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						
		BHARAT HEAVY ELECTRICALS LTD., UNIT: BOILER AUXILIARIES PLANT. RANIPET - 632 406.						
DEPT AP	GRADE OF UNTOL DIM PR: QA: 500	SCALE NTS	WEIGHT (KG). 512.417	DRN CHD APPD	NAME A.KUMAR SR MP	SIGN Sd.. Sd.. Sd..	DATE 09.09.02	NO.OF VAR.
CODE 852		TITLE ASSY OF BASKET-A1		CARD CODE U 01		DRAWING NO. 2-52-025-01542		REV 05

REV 05	DATE 16.11.16	ALTERED CHECKED	AK KT	REV 04	DATE 03.12.13	ALTERED CHECKED	AK RSB
BASKET PLATE THICKNESS CHANGED TO 5 MM AND THIS REVISION IS NOT APPLICABLE FOR THE RELEASES BEFORE THE DATE 16.11.16. TOTAL WT WAS 501.370				BASKET IMPROVED DESIGN INTRODUCED AND TOTAL WT WAS 516.560			

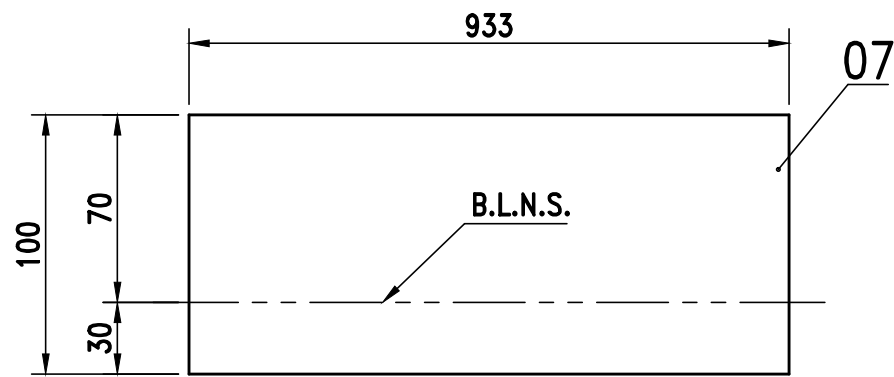
2-52-025-01543
DRAWING NO.

ALL DIMENSIONS ARE IN MILLIMETRES

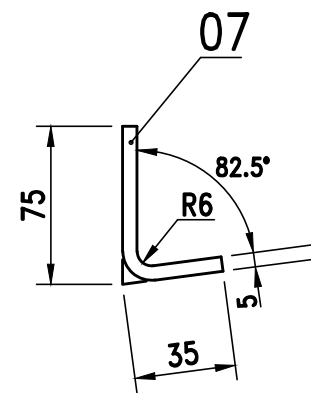
FOR PRODUCTION
REF.: PR:QA:590 FOR PAINTING
REF.: PR:QA:500 FOR UNTOL. DIMS.
REF.: APPLICABLE GMS FOR MATL CODE & SPEC

SHOP NOTES:-

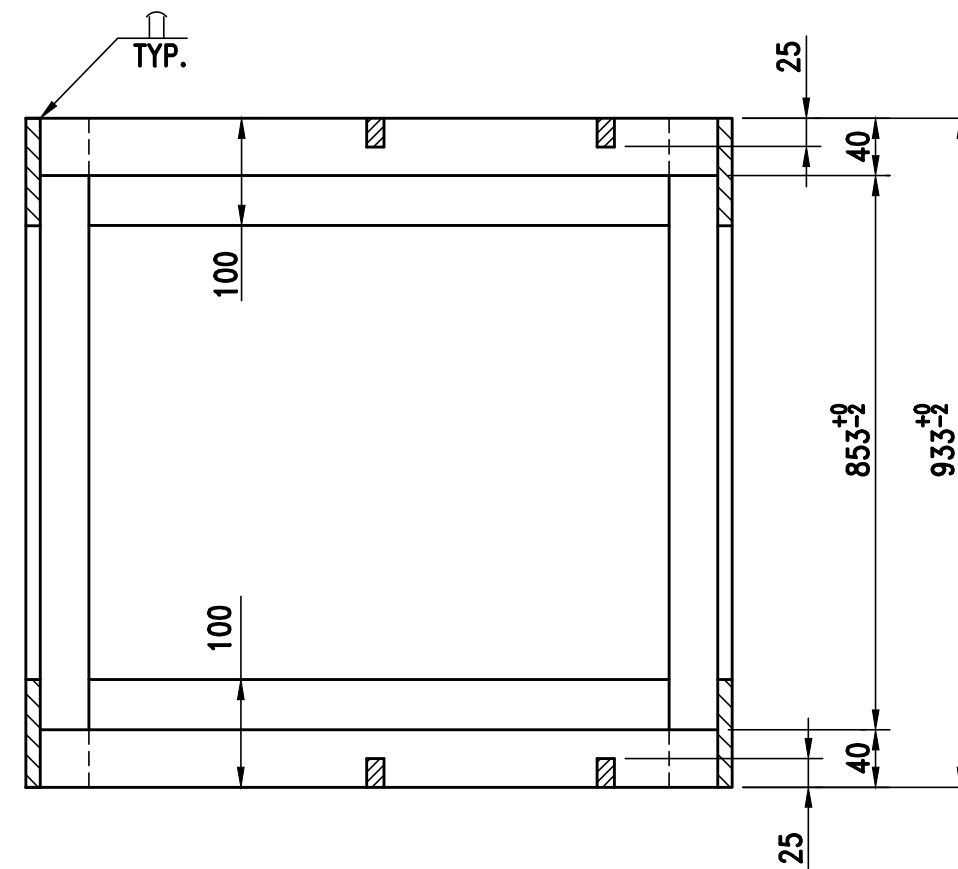
- S-1. ASSEMBLE OUTER END PLATE AND 82.5° ANGLES BEFORE WELDING TO BASKET.
- S-2. INSTALL ELEMENT BEFORE WELDING OUTER END PLATES IN PLACE.
- S-3. ALL OUTSIDE WELDS TO BE HALF 'V' EDGE PREPARED, WELDED AND FLUSH GROUND TO ENSURE EASY INSERTION OF BASKETS IN THE ROTOR COMPARTMENTS.
- S-4. PUNCH "BASKET-B" ON THE ASSEMBLY.



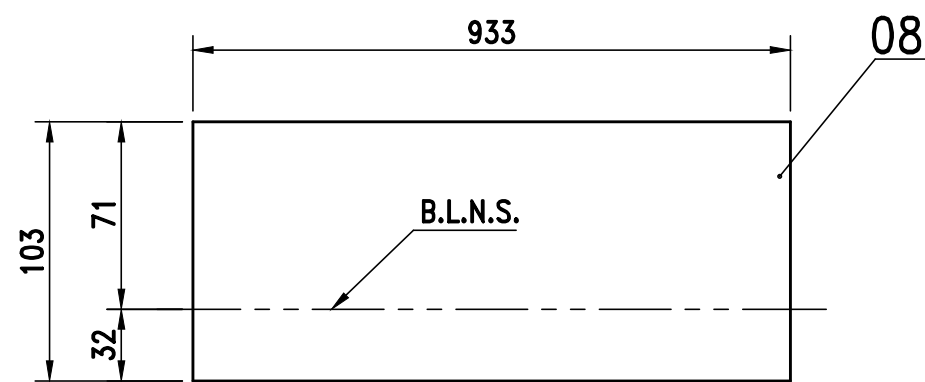
OUTSTRETCHED VIEW



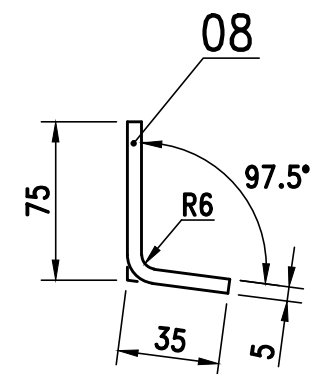
FORMED VIEW



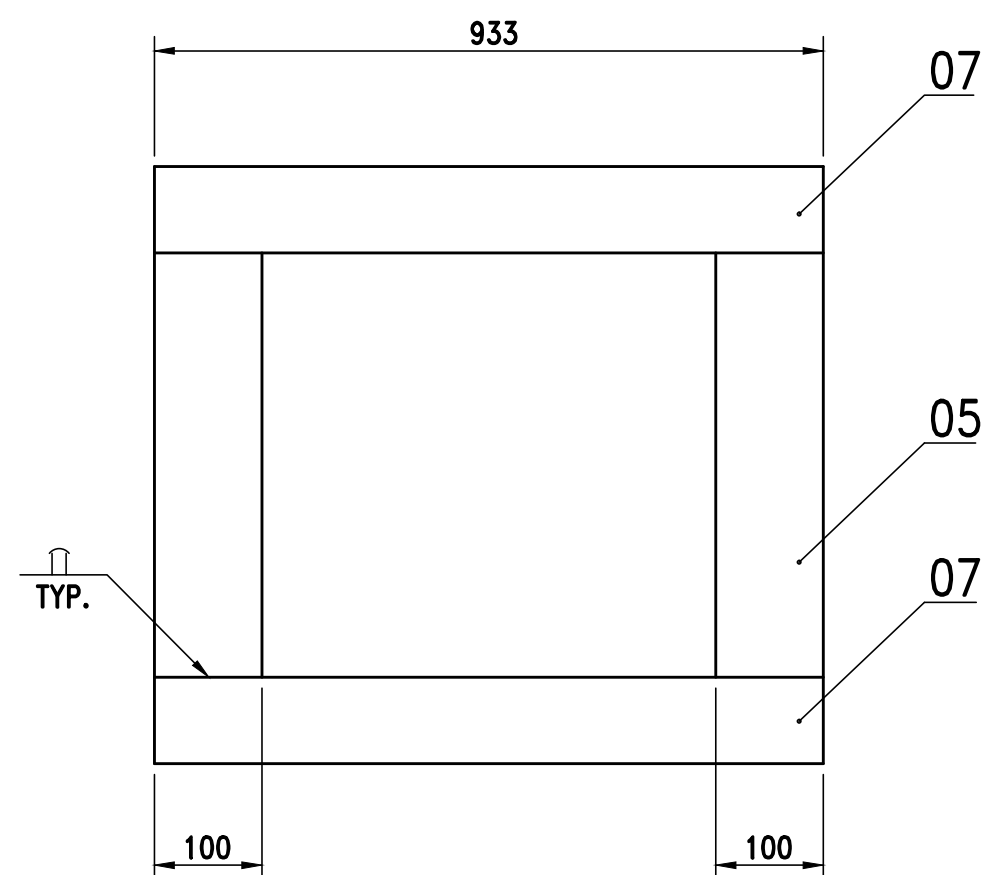
SECTION-AA



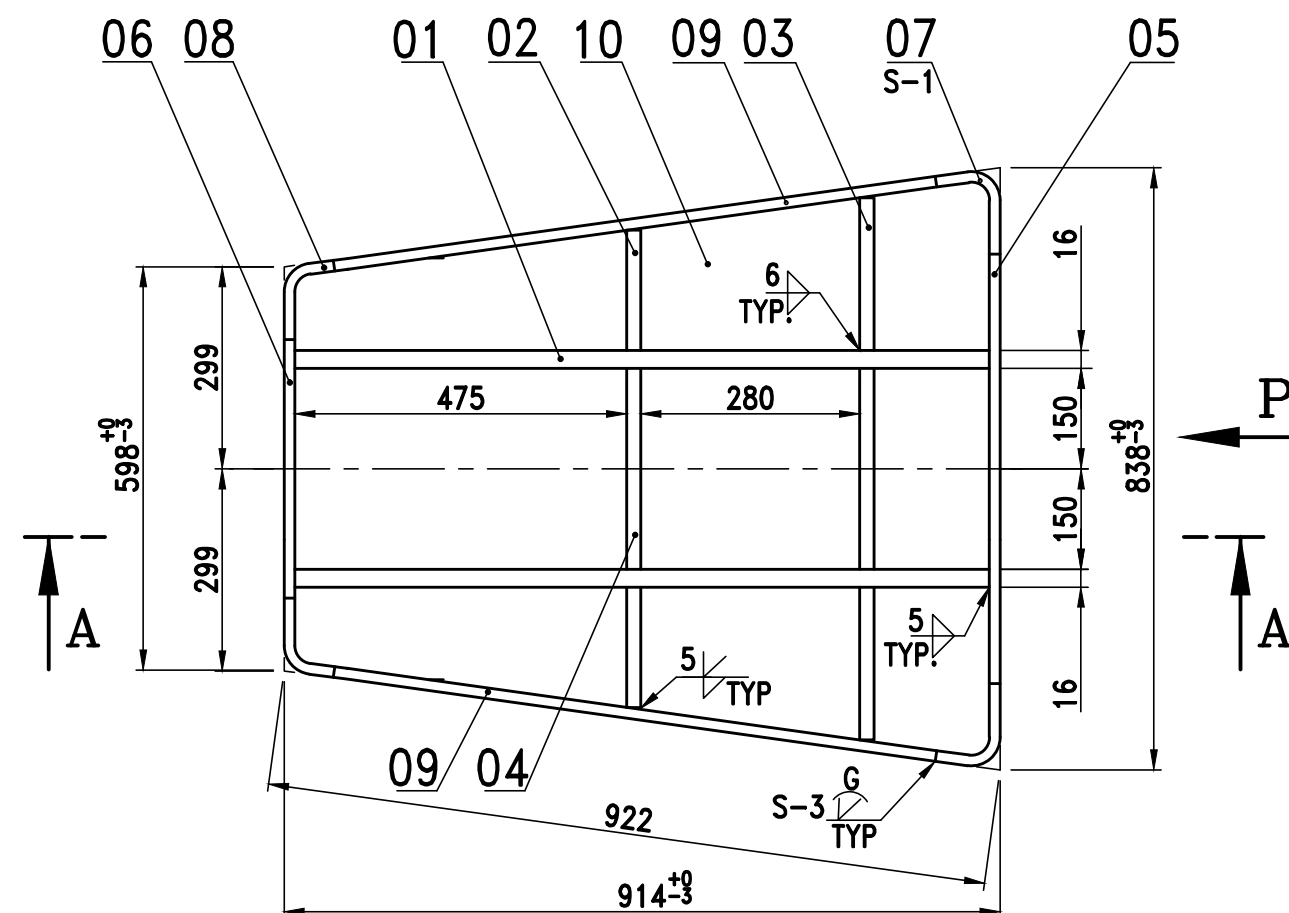
OUTSTRETCHED VIEW



FORMED VIEW



VIEW-P



TOP PLAN VIEW

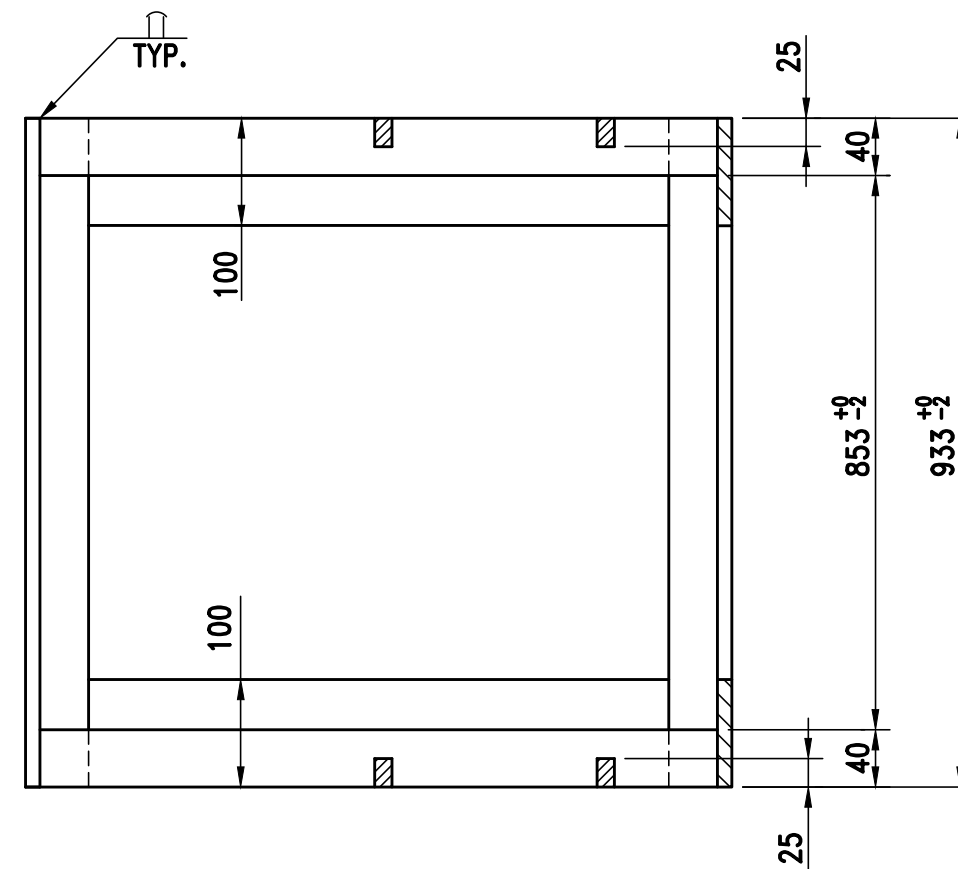
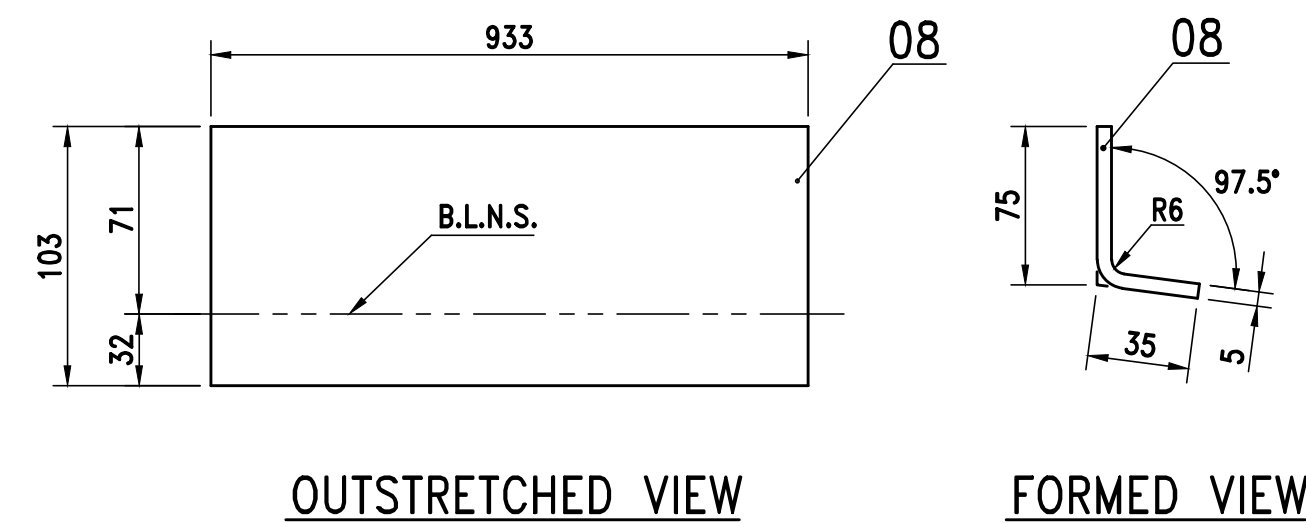
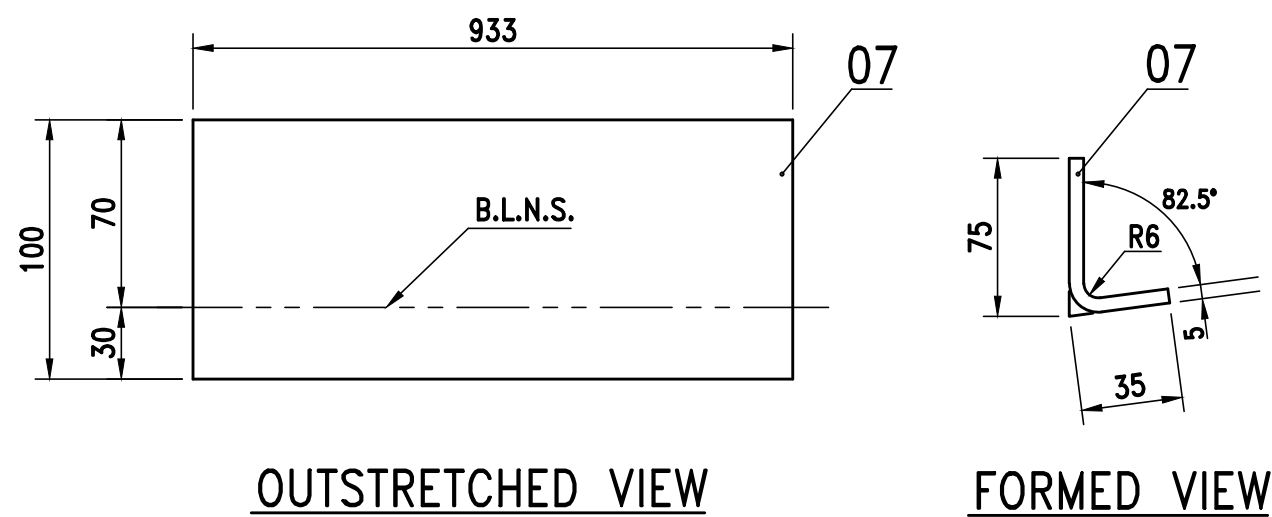
VAR NO	ITEM NO	DESCRIPTION	CAT	DRAWING No.	ITEM NO VAR NO	MATL CODE MATL SPECN	UNIT A/P/C DI	UNIT WT QTY	C.S	ZONE
10	HE CUTTING LIST SH0.8X850 DU	4-52-025-02245		158117180850		685.100				
				IS 513 DD		1				
09	PL5X100X851			AA1011808013		3.336				
				IS 2062 GR A		4				
08	97.5 DEG C.ANGLE PL5X103X933			AA1011808013		3.772				
				IS 2062 GRA		2				
07	82.5 DEG C.ANGLE PL5X100X933			AA1011808013		3.662				
				IS 2062 GRA		2				
06	INNER END PLATE PL5X100X448			AA1011808013		1.758				
				IS 2062 GRA		2				
05	OUTER END PLATE PL5X100X688			AA1011808013		2.700				
				IS 2062 GRA		2				
04	SPIDER BAR FL25X12-300			AA1010308505		0.707				
				IS 2062 GRA		4				
03	SPIDER BAR FL25X12-229			AA1010308505		0.539				
				IS 2062 GRA		4				
02	SPIDER BAR FL25X12-191			AA1010308505		0.450				
				IS 2062 GRA		4				
01	HOLDING BAR FL40X16-904			AA1010308599		4.542				
				IS 2062 GRA		4				

TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT									
BHARAT HEAVY ELECTRICALS LTD., UNIT: BOILER AUXILIARIES PLANT. RANIPET - 632 406.									
DEPT AP	GRADE OF UNTOL DIM PR: QA: 500	SCALE NTS	WEIGHT (KG). 747.180	REF. TO ASSY/OLD DRG.	ITEM NO.	NO. OF ITEMS			
ASSY OF BASKET-B				CARD CODE U 01	DRAWING NO. 2-52-025-01543			REV 05	

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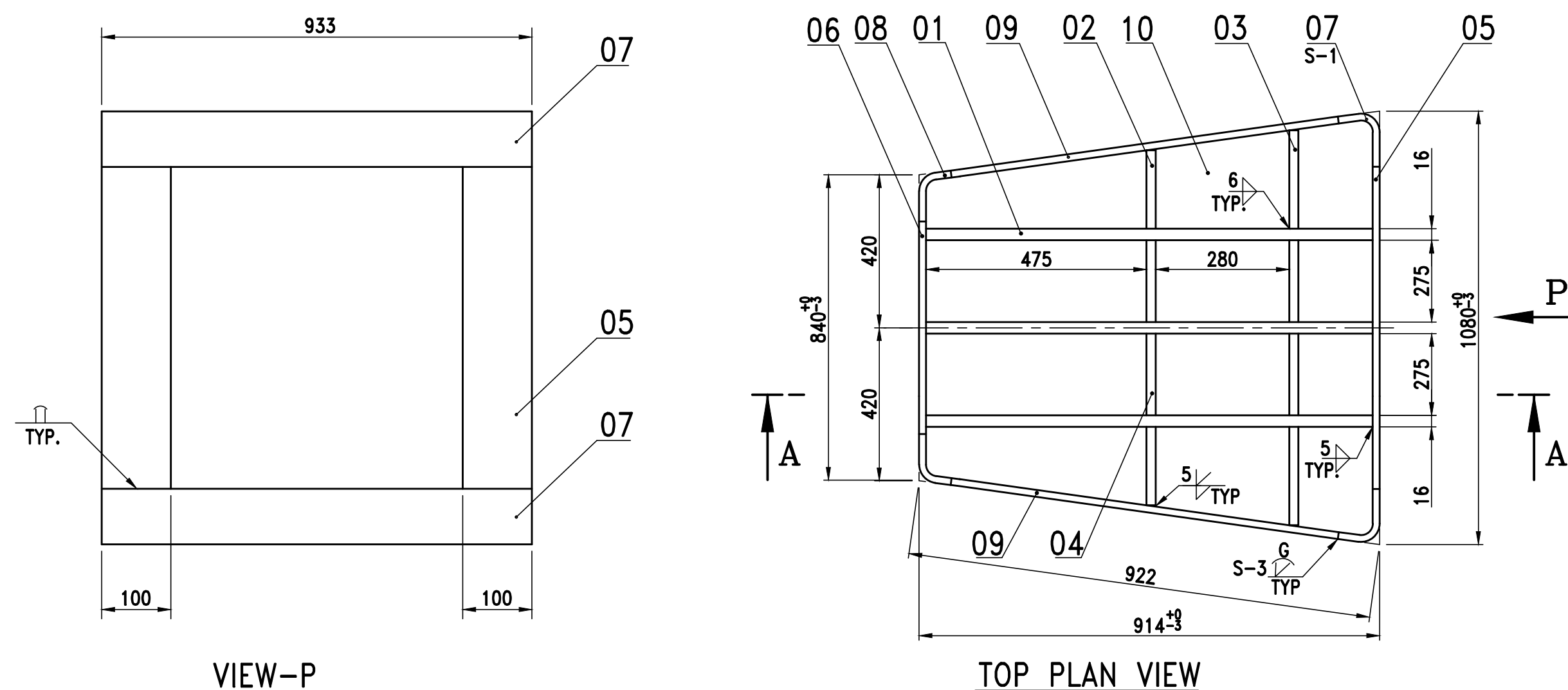
REV	DATE	ALTERED	AK	REV	DATE	ALTERED	AK
05	16.11.16	CHECKED	KT	04	05.12.13	CHECKED	RSB
BASKET PLATE THICKNESS CHANGED TO 5 MM AND THIS REVISION IS NOT APPLICABLE FOR THE RELEASES BEFORE THE DATE 16.11.16. TOTAL WT WAS 735.480				BASKET IMPROVED DESIGN INTRODUCED AND TOTAL WT WAS 752.780			

FOR PRODUCTION
REF.: PR:QA:590 FOR PAINTING
REF.: PR:QA:500 FOR UNTOL. DIMS.
REF.: APPLICABLE GMS FOR MATL CODE & SPEC



SHOP NOTES:-

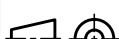
- S-1. ASSEMBLE OUTER END PLATE AND 82.5° ANGLES BEFORE WELDING TO BASKET.
- S-2. INSTALL ELEMENT BEFORE WELDING OUTER END PLATES IN PLACE.
- S-3. ALL OUTSIDE WELDS TO BE HALF 'V' EDGE PREPARED, WELDED AND FLUSH GROUND TO ENSURE EASY INSERTION OF BASKETS IN THE ROTOR COMPARTMENTS.
- S-4. PUNCH "BASKET-C" ON THE ASSEMBLY.



	10	HE CUTTING LIST SH0.8X850 DU		4-52-025-02246		158117180850			918.850		
						IS 513 DD			1		
	09	PL5X100X851				AA1011808013			3.340		
						IS 2062 GR A			4		
	08	97.5 DEG C.ANGLE PL5X103X933				AA1011808013			3.772		
						IS 2062 GRA			2		
	07	82.5 DEG C.ANGLE PL5X100X933				AA1011808013			3.662		
						IS 2062 GRA			2		
	06	INNER END PLATE PL5X100X690				AA1011808013			2.708		
						IS 2062 GRA			2		
	05	OUTER END PLATE PL5X100X930				AA1011808013			3.650		
						IS 2062 GRA			2		
	04	SPIDER BAR FL25X12-275				AA1010308505			0.648		
						IS 2062 GRA			8		
	03	SPIDER BAR FL25X12-220				AA1010308505			0.518		
						IS 2062 GRA			4		
	02	SPIDER BAR FL25X12-181				AA1010308505			0.426		
						IS 2062 GRA			4		
	01	HOLDING BAR FL40X16-904				AA1010308599			4.542		
						IS 2062 GRA			6		
VAR NO	ITEM NO	DESCRIPTION	CAT	DRAWING No.	ITEM NO VAR NO	MATL CODE	A/P/C	UNIT	UNIT WT	G-S	ZONE
						MATL SPECN	DI		QTY		

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	
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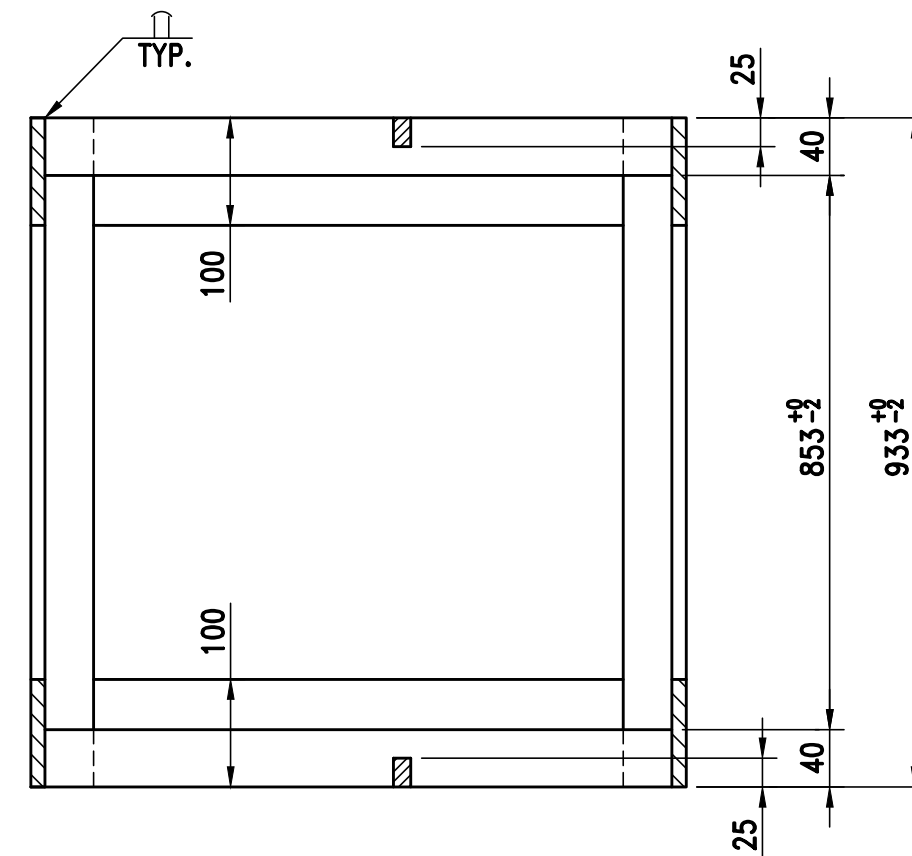
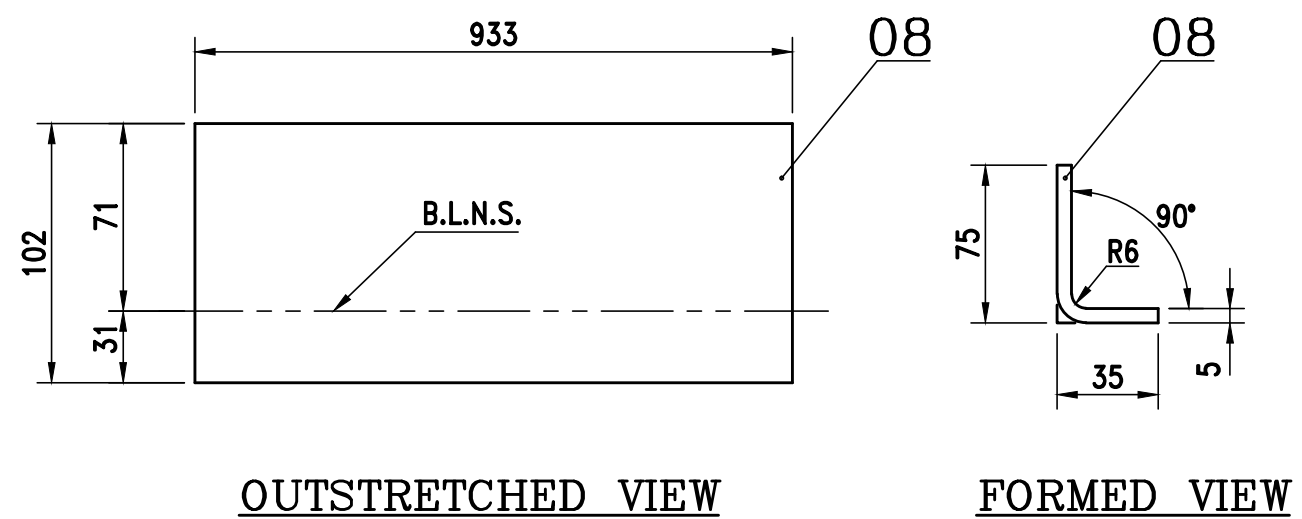
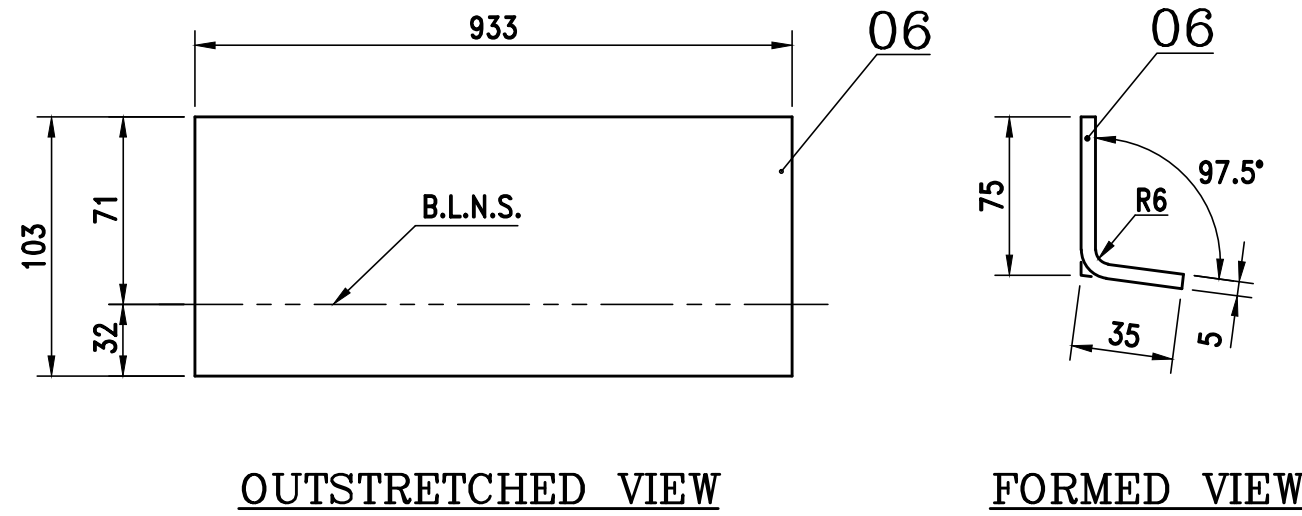
 BHARAT HEAVY ELECTRICALS LTD., UNIT: BOILER AUXILIARIES PLANT. RANIPET - 632 406.					DRN	NAME A.KUMAR	Sd..	DATE 04.03.94	NO. OF VAR.	
					CHD	SR	Sd..			
					APPD	MP	Sd..			
DEPT AP	GRADE OF UNTOLDIM PR: QA: 500		SCALE NTS	WEIGHT (KG). 996.006	REF. TO ASSY/OLD DRG.				ITEM NO.	NO. OF ITEMS
CODE 852										
TITLE ASSY OF BASKET-C					CARD CODE U 01	DRAWING NO. 2-52-025-01544				REV 05

REV 05	DATE 16.11.16	ALTERED CHECKED	AK KT	REV 04	DATE 06.12.13	ALTERED CHECKED	AK RSB
ZONE BASKET PLATE THICKNESS CHANGED TO 5 MM AND THIS REVISION IS NOT APPLICABLE FOR THE RELEASES BEFORE THE DATE 16.11.16. TOTAL WT WAS 982.670				ZONE BASKET IMPROVED DESIGN INTRODUCED AND TOTAL WT WAS 1002.470			

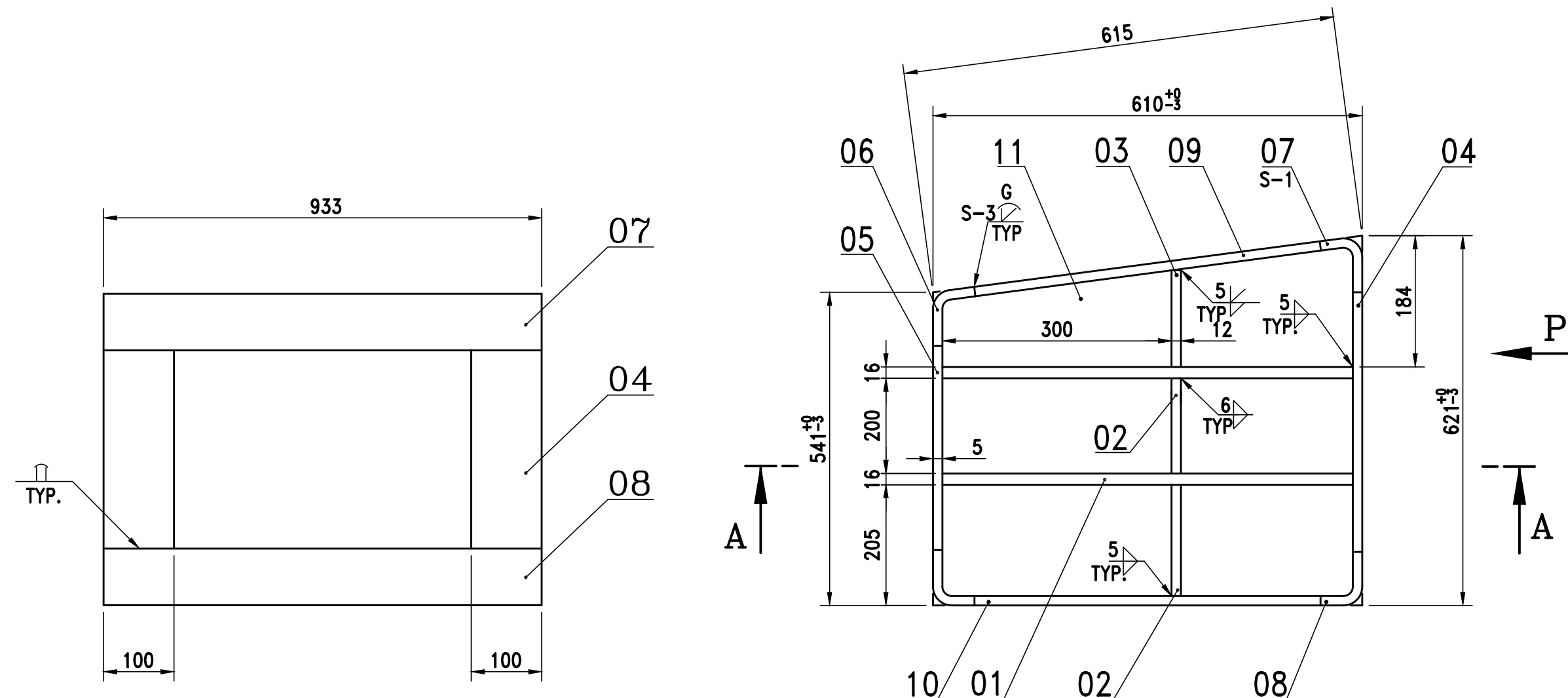
FOR PRODUCTION
REF.: PR:QA:590 FOR PAINTING
REF.: PR:QA:500 FOR UNTOL. DIMS.
REF.: APPLICABLE GMS FOR MATL CODE & SPEC

SHOP NOTES:-

- S-1. ASSEMBLE OUTER END PLATE, 90° AND 82.5° ANGLES BEFORE WELDING TO BASKET.
- S-2. INSTALL ELEMENT BEFORE WELDING OUTER END PLATES IN PLACE.
- S-3. PUNCH "BASKET-D1" ON THE ASSEMBLY.



SECTION-AA



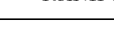
VIEW-P

TOP PLAN VIEW

REV 06	DATE 16.11.16	ALTERED CHECKED	AK KT	REV 05	DATE 07.12.13	ALTERED CHECKED	AK RSB
ZONE BASKET PLATE THICKNESS CHANGED TO 5 MM AND THIS REVISION IS NOT APPLICABLE FOR THE RELEASES BEFORE THE DATE 16.11.16. TOTAL WT WAS 402.180				ZONE BASKET IMPROVED DESIGN INTRODUCED AND TOTAL WT WAS 414.942			

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TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT	
---	--

 BHARAT HEAVY ELECTRICALS LTD., UNIT: BOILER AUXILIARIES PLANT. RANIPET - 632 406.				DRN	NAME A.KUMAR	SIGN Sd..	DATE 04.03.94	NO. OF VAR.	
				CHD	S.R	Sd..			
				APPD	M.P	Sd..			
DEPT AP	GRADE OF UNTOLDIM		SCALE NTS	WEIGHT (KG) 411.118	REF. TO ASSY/OLD DRG.			ITEM NO.	NO. OF ITEMS
CODE 852	PR: QA: 500								
TITLE ASSY OF BASKET-D1					CARD CODE U 01	DRAWING NO. 2-52-025-01545			REV 06

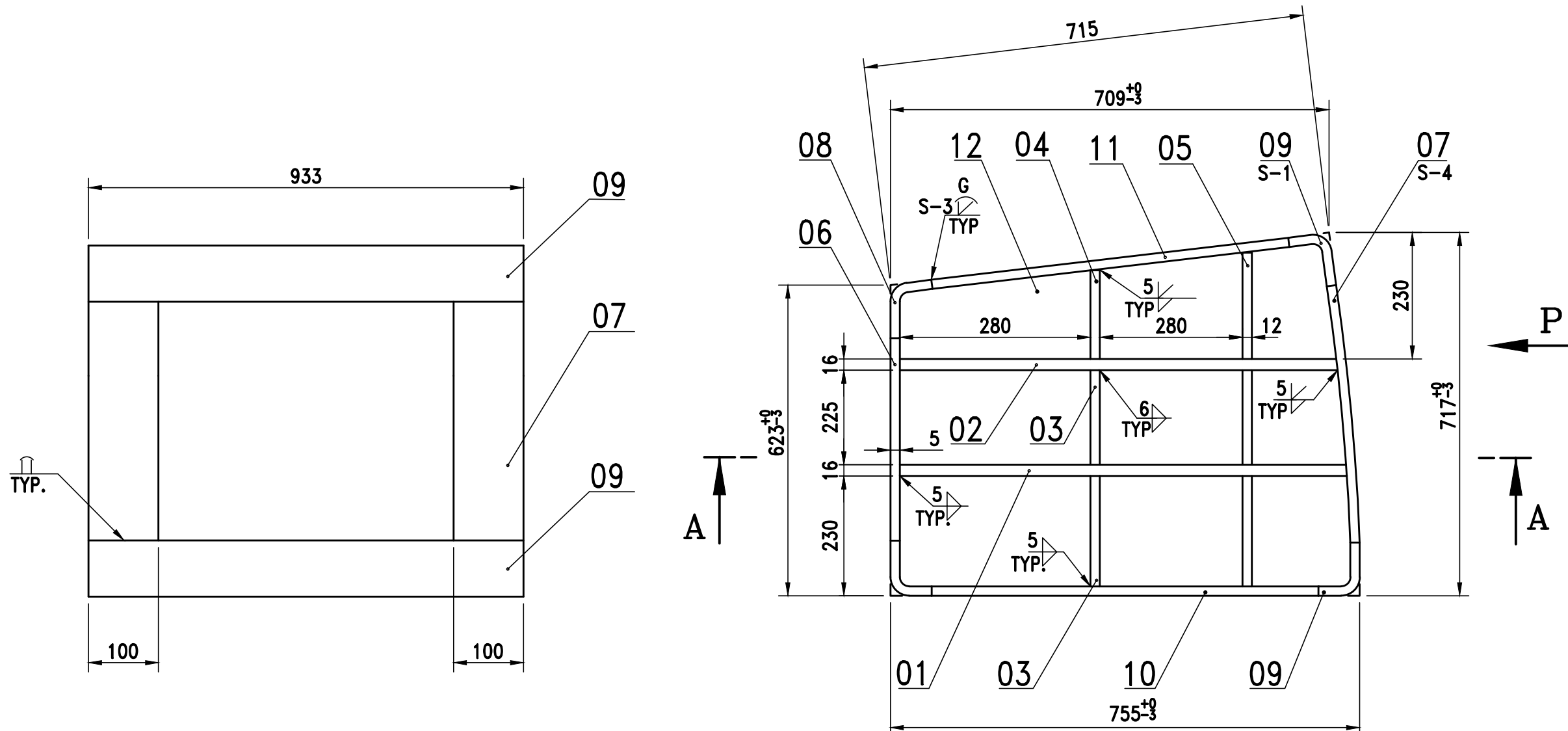
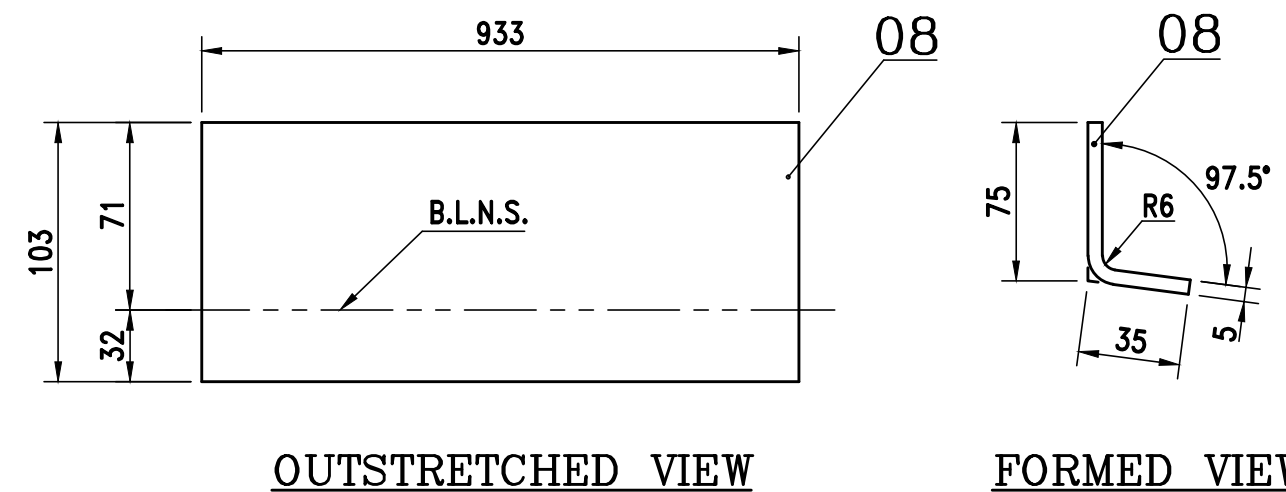
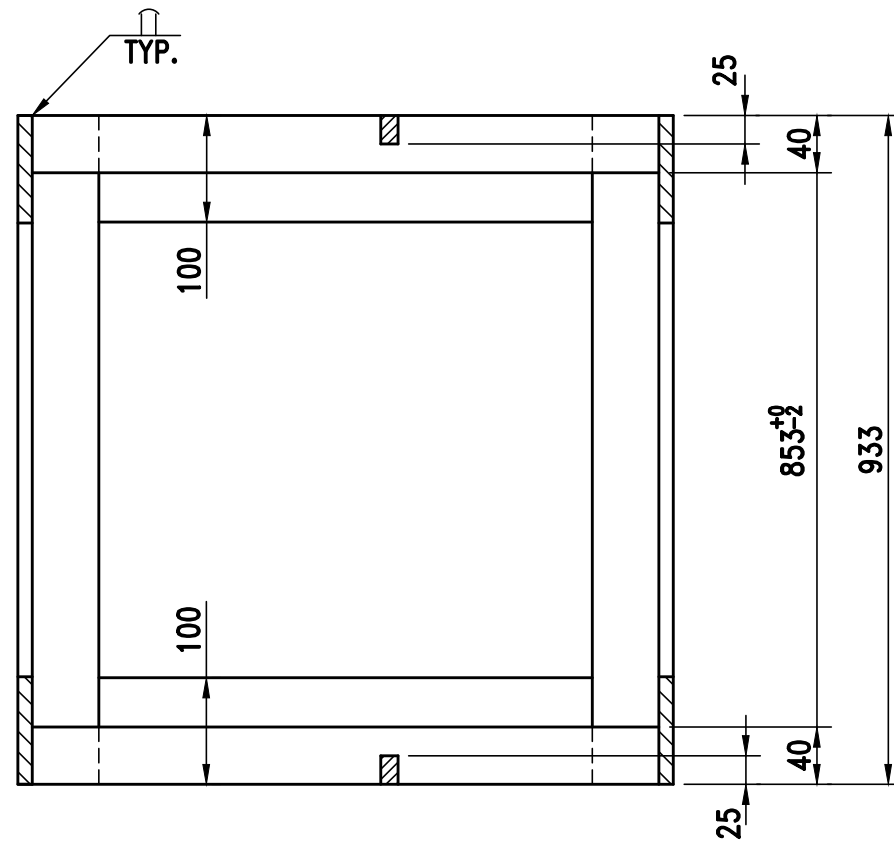
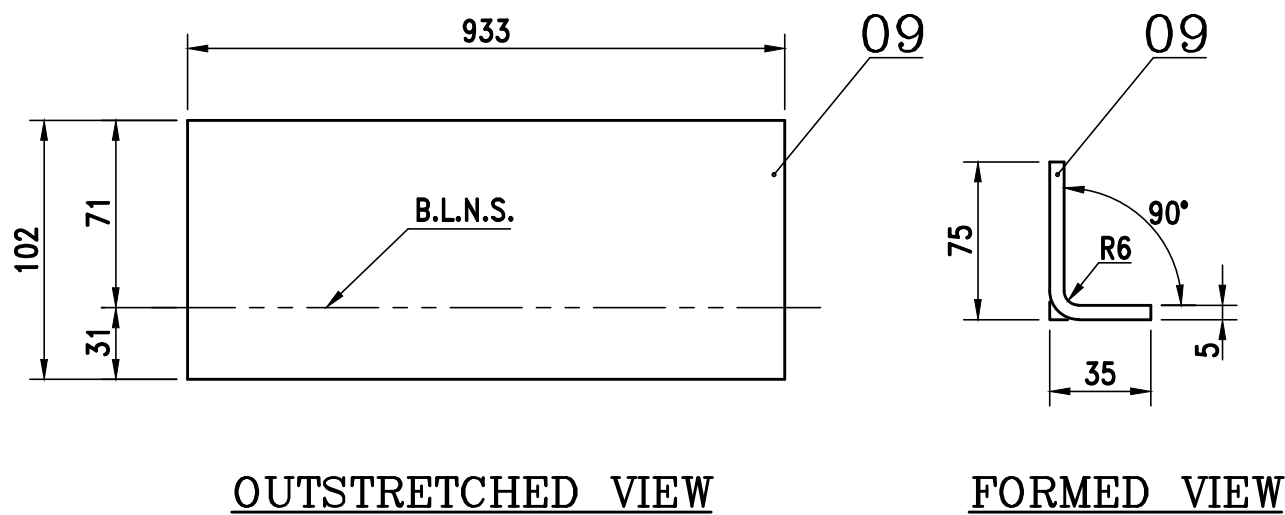
2-52-025-01546
DRAWING NO.

ALL DIMENSIONS ARE IN MILLIMETRES

FOR PRODUCTION
REF.: PR:QA:590 FOR PAINTING
REF.: PR:QA:500 FOR UNTOL. DIMS.
REF.: APPLICABLE GMS FOR MATL CODE & SPEC

SHOP NOTES:

1. ASSEMBLE OUTER END PLATES AND ANGLES BEFORE WELDING TO BASKET
2. INSTALL ELEMENT BEFORE WELDING OUTER END PLATES IN PLACE
3. ROLL ITEM NO.07 TO IR 5626.
4. PUNCH "BASKET-E30" ON THE ASSEMBLY.

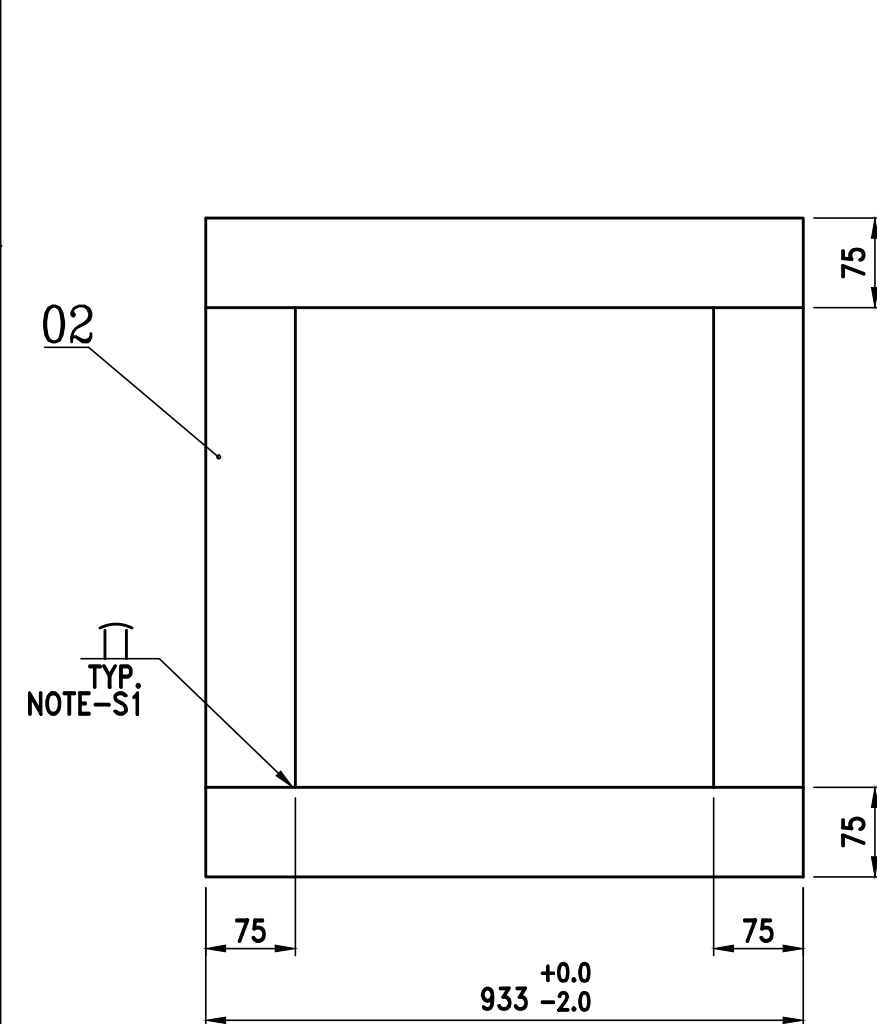


	12	HE CUTTING LIST SH0.8X850 DU		4-52-025-02248		158117180850 IS 513 DD			516.800 1		
	11	PL5X100X644				AA1011808013 IS 2062 GRA			2.528 2		
	10	PL5X100X684				AA1011808013 IS 2062 GRA			2.685 2		
	09	90DEG COR ANGLE PL5X102X933				AA1011808013 IS 2062 GRA			3.735 3		
	08	97.5DEG COR ANGLE PL5X103X933				AA1011808013 IS 2062 GRA			3.772 1		
	07	PL5X100X569 ROLL TO IR 5626				AA1011808013 IS 2062 GRA			2.233 2		
	06	INNER END PLATE PL5X100X473				AA1011808013 IS 2062 GRA			1.857 2		
	05	SPIDER BAR FL25X12-207				AA1010308505 IS 2062 GR A			0.487 2		
	04	SPIDER BAR FL25X12-168				AA1010308505 IS 2062 GR A			0.396 2		
	03	SPIDER BAR FL25X12-225				AA1010308505 IS 2062 GR A			0.530 8		
	02	HOLDING BAR FL40X16-724				AA1010308599 IS 2062 GR A			3.637 2		
	01	HOLDING BAR FL40X16-740				AA1010308599 IS 2062 GR A			3.718 2		
VAR NO	ITEM NO	DESCRIPTION	CAT	DRAWING No.	ITEM NO VAR NO	MATL CODE MATL SPECN	A/P UNIT DI	UNIT WT QTY	G.S	ZONE	

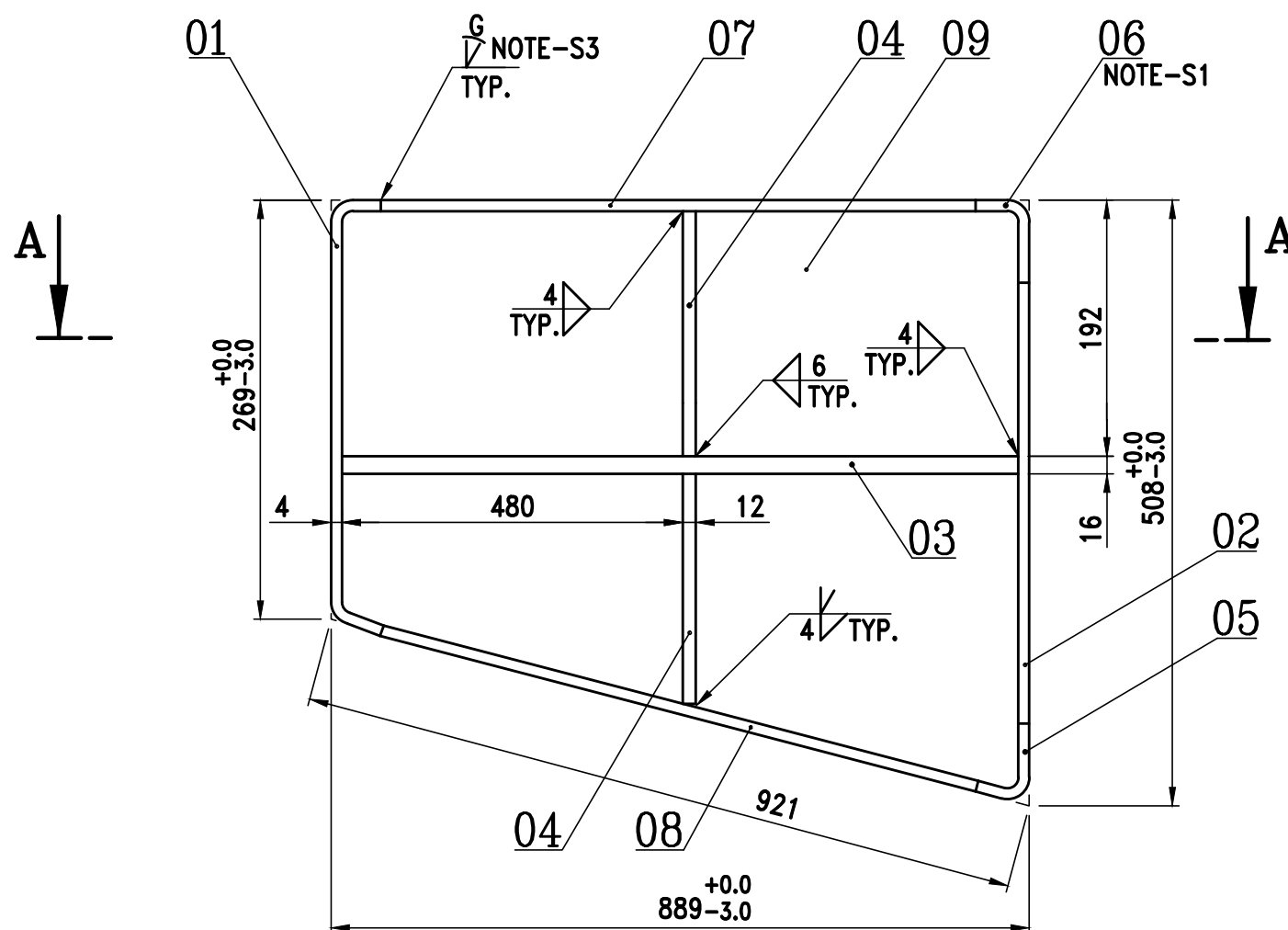
CAUTION: The information on this document is the property of BHARAT HEAVY ELECTRICALS LTD. It must not be used directly or indirectly in any way detrimental to the interest of the company.		TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT		DRN CHD APPD		NAME A.KUMAR S.RAGUNATHAN M.P.		SIGN Sd.. Sd.. Sd..		DATE 08.03.94		NO.OF VAR.	
DEPT AP		GRADE OF UNTOL DIM PR: QA: 500		SCALE NTS		WEIGHT (KG). 571.099		REF. TO ASSY/OLD DRG. 2-52-025-01541		ITEM NO.		NO. OF ITEMS	
TITLE ASSY OF BASKET-E30								CARD CODE U 01		DRAWING NO. 2-52-025-01546		REV 07	

REV 07	DATE 16.11.16	ALTERED CHECKED	AK KT	REV 06	DATE 07.12.13	ALTERED CHECKED	AK RSB
ZONE BASKET PLATE THICKNESS CHANGED TO 5 MM AND THIS REVISION IS NOT APPLICABLE FOR THE RELEASES BEFORE THE DATE 16.11.16. TOTAL WT WAS 560.850				ZONE BASKET IMPROVED DESIGN INTRODUCED AND TOTAL WT WAS 575.690			

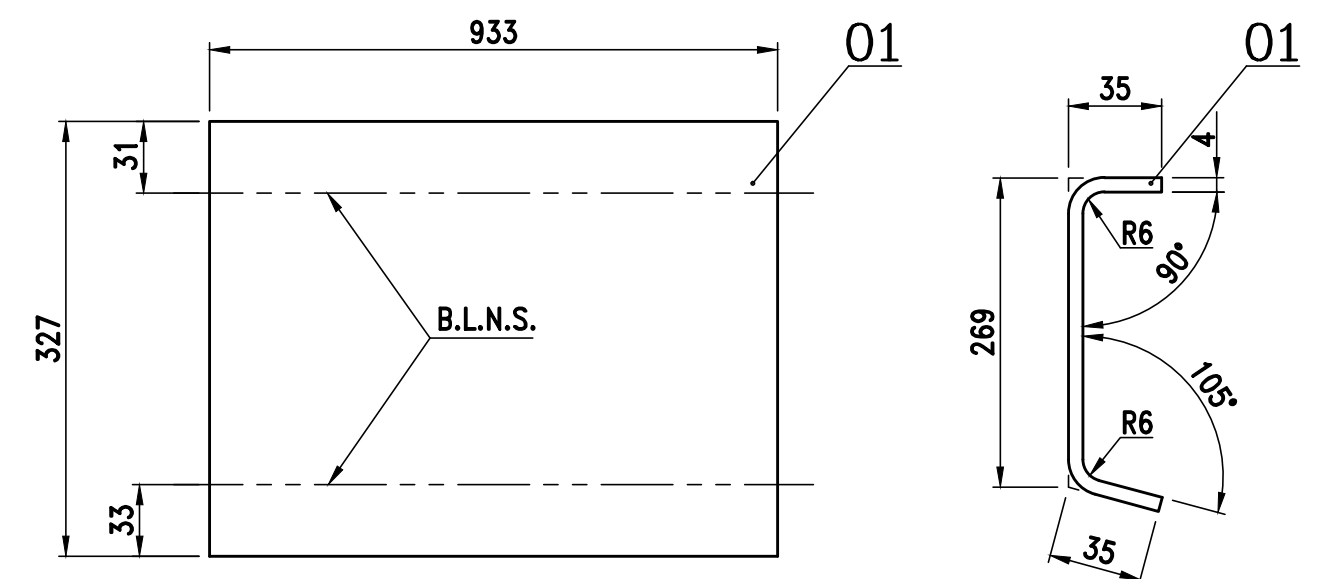
FOR PRODUCTION REF.: PR:QA:590 FOR PAINTING REF.: PR:QA:500 FOR UNTOL. DIMS. REF.: APPLICABLE GMS FOR MATL CODE & SPEC



VIEW FROM RIGHT

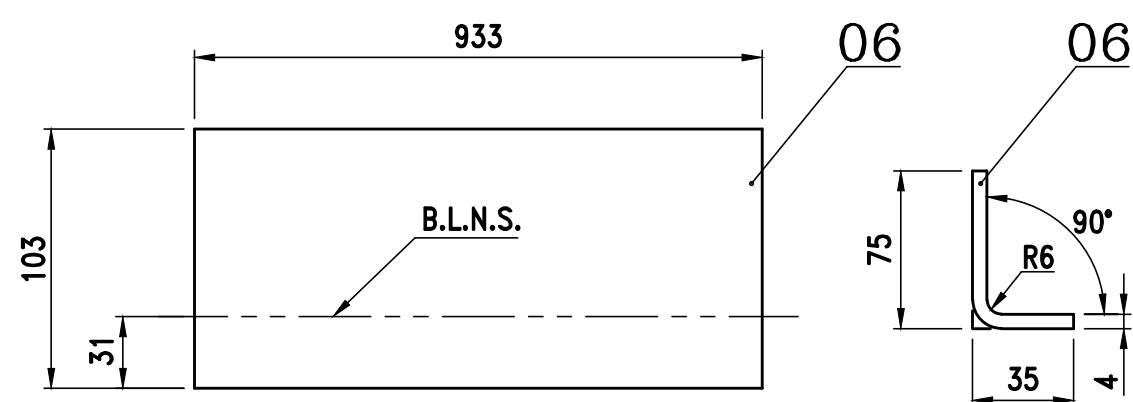


VIEW FROM TOP



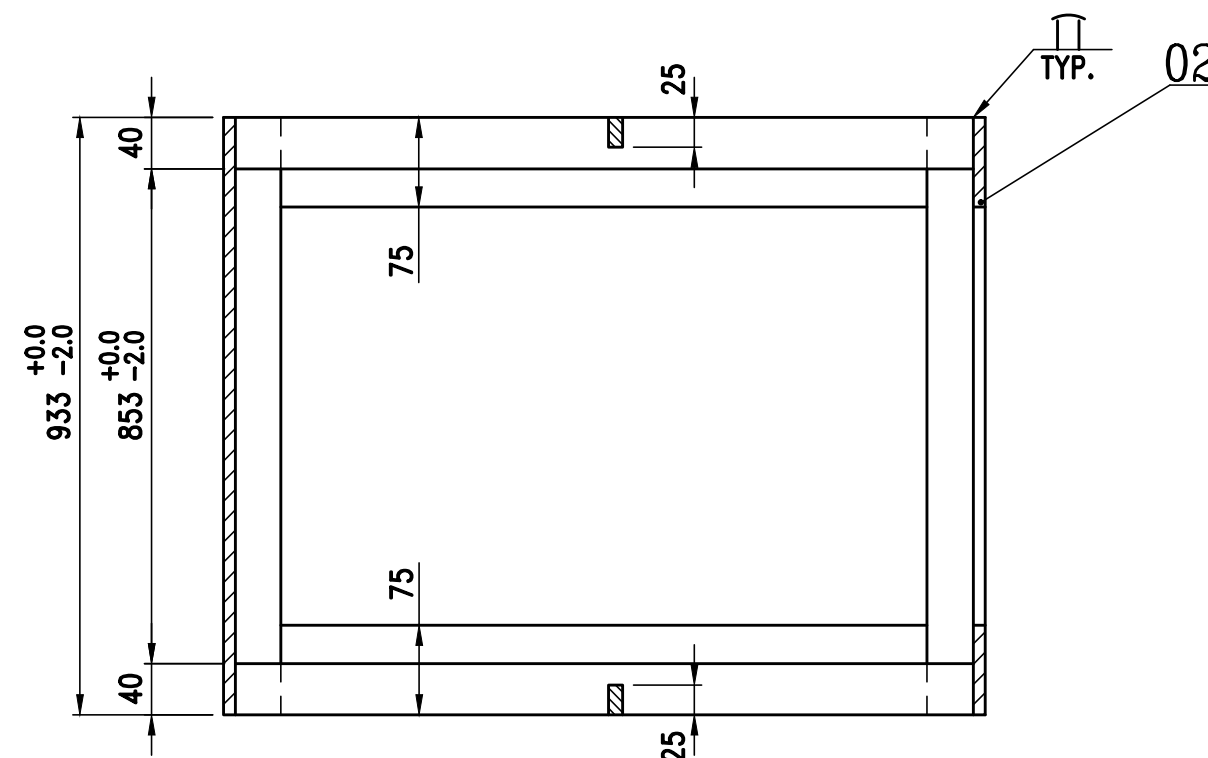
OUTSTRETCHED VIEW

FORMED VIEW

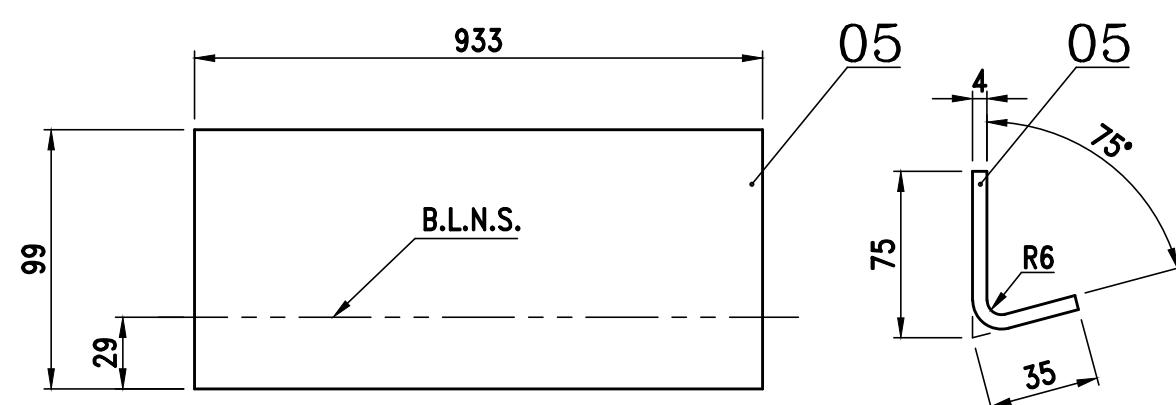


OUTSTRETCHED VIEW

FORMED VIEW



SECTION-AA



OUTSTRETCHED VIEW

FORMED VIEW

SHOP NOTES:-

- S-1. ASSEMBLE OUTER END PLATES ITEM NO.02, 75° AND 90° CORNER ANGLES BEFORE WELDING TO BASKET.
- S-2. INSTALL ELEMENTS BEFORE WELDING OUTER END PLATE ASSY IN PLACE
- S-3. ALL OUTSIDE WELDS TO BE HALF 'V' EDGE PREPARED, WELDED AND FLUSH GROUND TO ENSURE EASY INSERTION OF BASKETS IN THE ROTOR COMPARTMENTS.
- S-4. PUNCH "BASKET-A1" ON THE ASSEMBLY.

	09	HE CUTTING LIST SH 0.80X850 DU		4-52-025-02870		158117180850			356.150		
						IS 513 DD			1		
	08	SH 4X75X849				150113340000			1.999		
						IS 1079			2		
	07	SH 4X75X818				150113340000			1.926		
						IS 1079			2		
	06	90DEG COR ANGLE SH 4X103X933				150113340000			3.018		
						IS 1079			1		
	05	75DEG COR ANGLE SH 4X99X933				150113340000			2.900		
						IS 1079			1		
	04	SPIDER BAR FL 25X12;187				AA1010308505			0.440		
						IS 2062 GR A			4		
	03	HOLDING BAR FL 40X16;881				AA1010308599			4.426		
						IS 2062 GR A			2		
	02	OUTER END PLATE SH 4X75X358				150113340000			0.843		
						IS 1079			2		
	01	INNER END PLATE SH 4X327X933				150113340000			9.580		
						IS 1079			1		
VAR NO	ITEM NO	DESCRIPTION	CAT	DRAWING No.	ITEM NO	MATL CODE	A/P/C	UNIT	UNIT WT	G.S	ZONE
					VAR NO	MATL SPECN		DI	QTY		

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TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT	
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27/27.5 VIM (DOUBLE SEAL)

 BHARAT HEAVY ELECTRICALS LTD., UNIT: BOILER AUXILIARIES PLANT. RANIPET - 632 406.	DRN	NAME A.KUMAR	SIGN Sd..	DATE 09.01.02	NO.OF VAR.
	CHD	S.RAGUNATHAN	Sd..		
	APPD	S.RAGUNATHAN	Sd..		

DEPT AP	GRADE OF UNTOL. DIM
CODE 852	PR: QA: 500

SCALE	WEIGHT (KG).
NTS	391.796

REF. TO ASSY/OLD DRG.	
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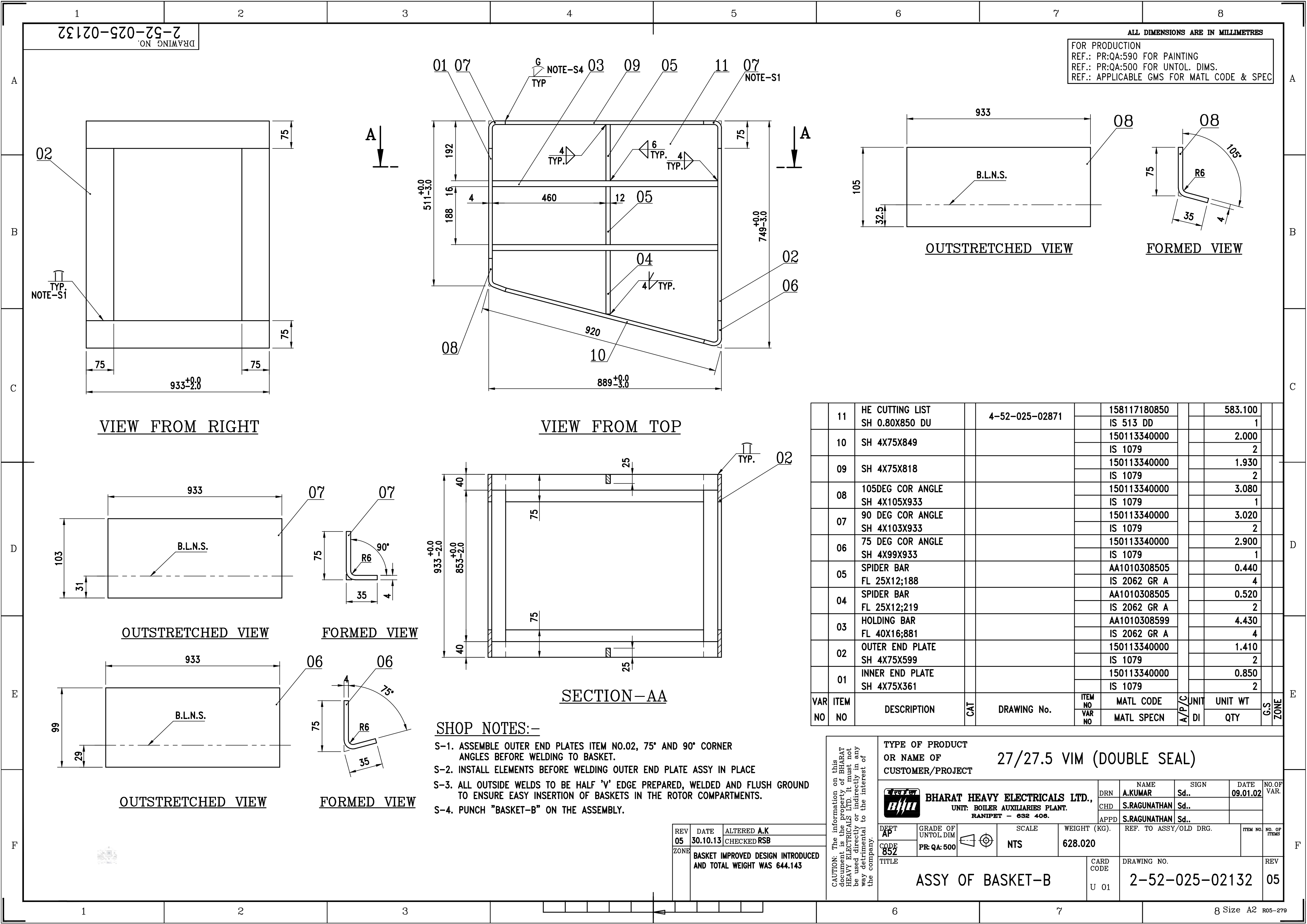
	ITEM NO.	NO. OF ITEMS
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ASSY OF BASKET-A1

CARD CODE
U 01

DRAWING NO.	2-52-025-02131
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REV
06



2-52-025-02132
DRAWING NO.

ALL DIMENSIONS ARE IN MILLIMETRES
FOR PRODUCTION
REF.: PR:QA:590 FOR PAINTING
REF.: PR:QA:500 FOR UNTOL. DIMS.
REF.: APPLICABLE GMS FOR MATL CODE & SPEC

NOTE-S4
NOTE-S1

OUTSTRETCHED VIEW
FORMED VIEW

VIEW FROM RIGHT

VIEW FROM TOP

SECTION-AA

SHOP NOTES:-

- S-1. ASSEMBLE OUTER END PLATES ITEM NO.02, 75° AND 90° CORNER ANGLES BEFORE WELDING TO BASKET.
- S-2. INSTALL ELEMENTS BEFORE WELDING OUTER END PLATE ASSY IN PLACE
- S-3. ALL OUTSIDE WELDS TO BE HALF 'V' EDGE PREPARED, WELDED AND FLUSH GROUND TO ENSURE EASY INSERTION OF BASKETS IN THE ROTOR COMPARTMENTS.
- S-4. PUNCH "BASKET-B" ON THE ASSEMBLY.

	11	HE CUTTING LIST SH 0.80X850 DU		4-52-025-02871		158117180850			583.100		
						IS 513 DD			1		
	10	SH 4X75X849				150113340000			2.000		
						IS 1079			2		
	09	SH 4X75X818				150113340000			1.930		
						IS 1079			2		
	08	105DEG COR ANGLE SH 4X105X933				150113340000			3.080		
						IS 1079			1		
	07	90 DEG COR ANGLE SH 4X103X933				150113340000			3.020		
						IS 1079			2		
	06	75 DEG COR ANGLE SH 4X99X933				150113340000			2.900		
						IS 1079			1		
	05	SPIDER BAR FL 25X12;188				AA1010308505			0.440		
						IS 2062 GR A			4		
	04	SPIDER BAR FL 25X12;219				AA1010308505			0.520		
						IS 2062 GR A			2		
	03	HOLDING BAR FL 40X16;881				AA1010308599			4.430		
						IS 2062 GR A			4		
	02	OUTER END PLATE SH 4X75X599				150113340000			1.410		
						IS 1079			2		
	01	INNER END PLATE SH 4X75X361				150113340000			0.850		
						IS 1079			2		
VAR NO	ITEM NO	DESCRIPTION	CAT	DRAWING No.	ITEM NO VAR NO	MATL CODE MATL SPECN	A/P/C UNIT DI	UNIT WT QTY	G.S	ZONE	

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

27/27.5 VIM (DOUBLE SEAL)

DRN	NAME	SIGN	DATE	NO.OF VAR.
CHD	A.KUMAR	Sd..	09.01.02	
APPD	S.RAGUNATHAN	Sd..		

DEPT	GRADE OF UNTOL DIM	SCALE	WEIGHT (KG).	ITEM NO	NO. OF ITEMS
AP	PR: QA: 500	NTS	628.020		

CARD CODE	DRAWING NO.	REV
U 01	2-52-025-02132	05

ASSY OF BASKET-B

REV	DATE	ALTERED A.K
05	30.10.13	CHECKED RSB
ZONE	BASKET IMPROVED DESIGN INTRODUCED AND TOTAL WEIGHT WAS 644.143	



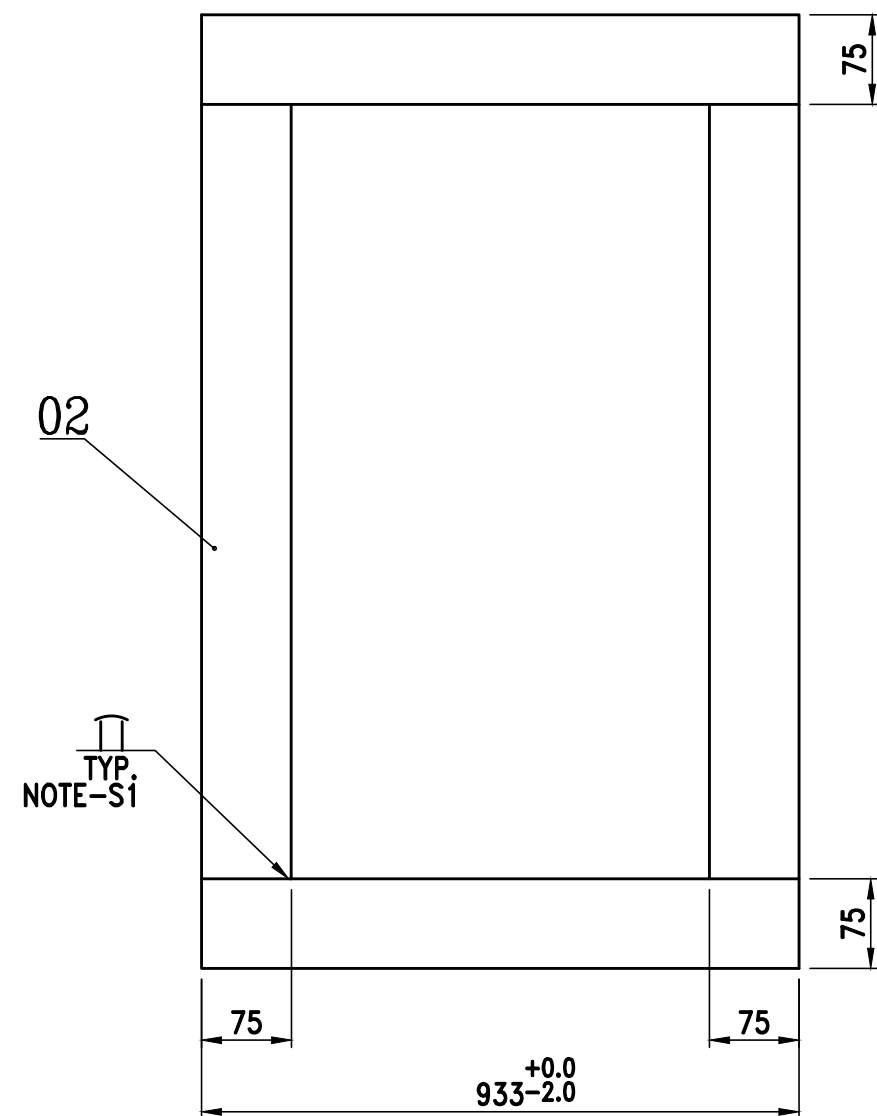
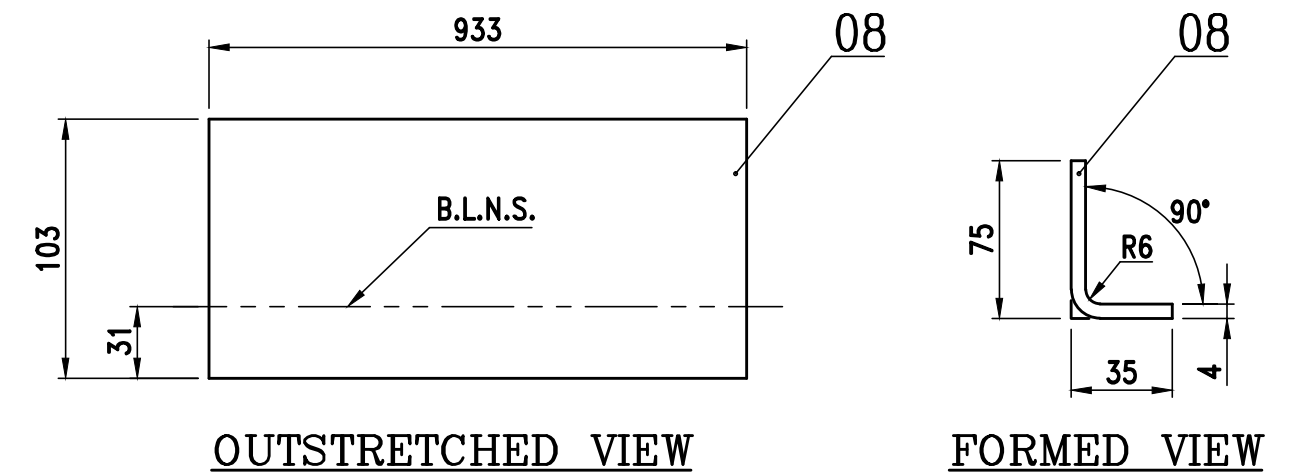
2-52-025-02133
DRAWING NO.

ALL DIMENSIONS ARE IN MILLIMETRES

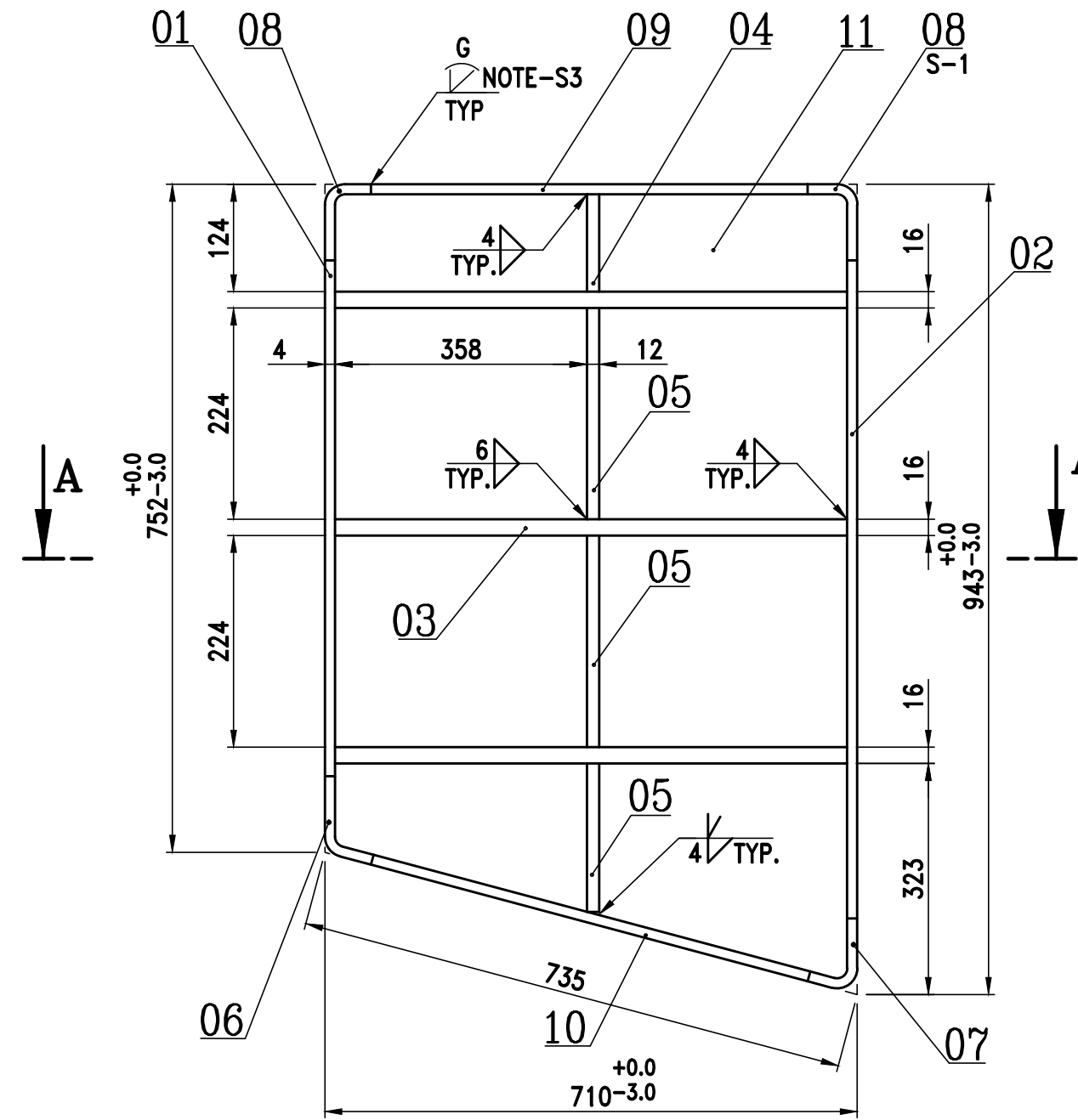
FOR PRODUCTION
REF.: PR:QA:590 FOR PAINTING
REF.: PR:QA:500 FOR UNTOL. DIMS.
REF.: APPLICABLE GMS FOR MATL CODE & SPEC

SHOP NOTES:-

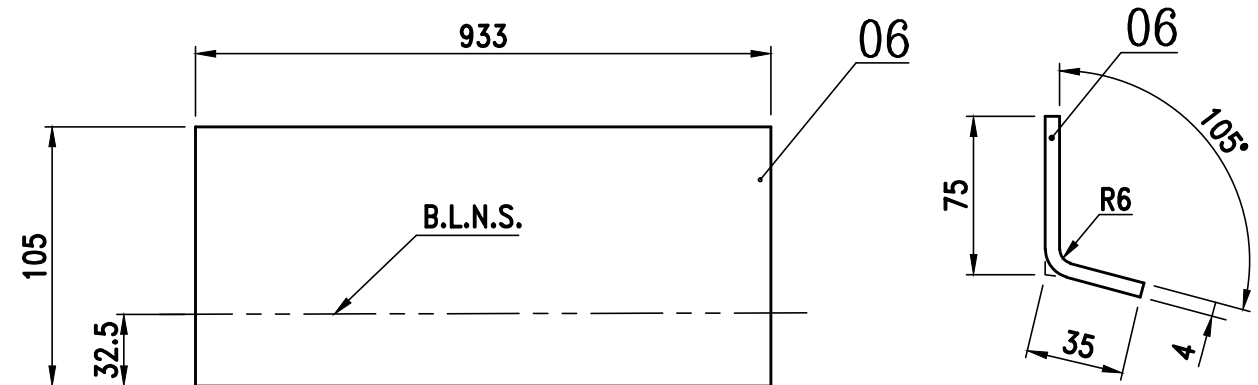
- S-1. ASSEMBLE OUTER END PLATES ITEM NO.02, 75° AND 90° CORNER ANGLES BEFORE WELDING TO BASKET.
S-2. INSTALL ELEMENTS BEFORE WELDING OUTER END PLATE ASSY IN PLACE
S-3. ALL OUTSIDE WELDS TO BE HALF 'V' EDGE PREPARED, WELDED AND FLUSH GROUND TO ENSURE EASY INSERTION OF BASKETS IN THE ROTOR COMPARTMENTS.
S-4. PUNCH "BASKET-C" ON THE ASSEMBLY.



VIEW FROM RIGHT

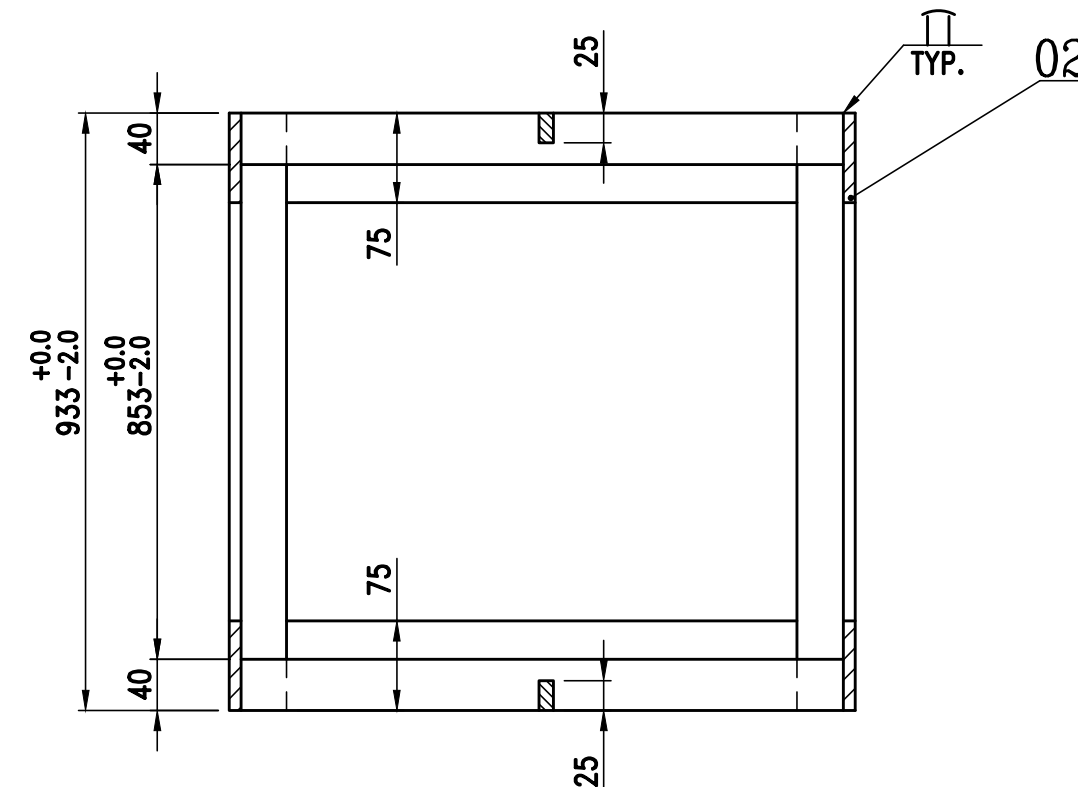


VIEW FROM TOP

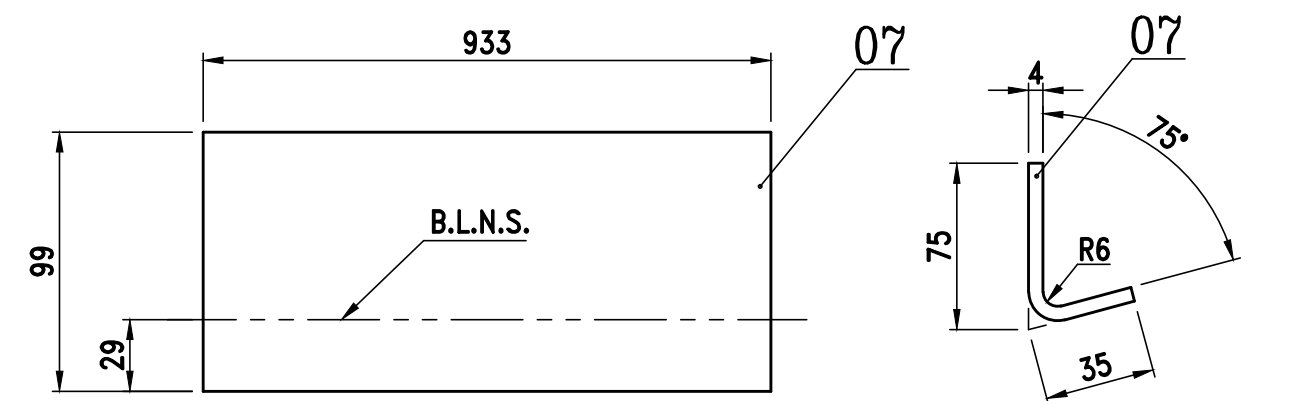


OUTSTRETCHED VIEW

FORMED VIEW



SECTION-AA



OUTSTRETCHED VIEW

FORMED VIEW

VAR NO	ITEM NO	DESCRIPTION	CAT	DRAWING No.	ITEM NO VAR NO	MATL CODE MATL SPECN	UNIT A/P/C DI	UNIT WT QTY	C.S	ZONE
11	HE CUTTING LIST SH 0.80X850 DU	4-52-025-02872		158117180850 IS 513 DD		627.300 1				
10	SH 4X75X664			150113340000 IS 1079		1.560 2				
09	SH 4X75X639			150113340000 IS 1079		1.510 2				
08	90DEG COR ANGLE SH 4X103X933			150113340000 IS 1079		3.020 2				
07	75DEG COR ANGLE SH 4X99X933			150113340000 IS 1079		2.900 1				
06	105DEG COR ANGLE SH 4X105X933			150113340000 IS 1079		3.080 1				
05	SPIDER BAR FL 25X12;224			AA1010308505 IS 2062 GR A		0.530 6				
04	SPIDER BAR FL 25X12;120			AA1010308505 IS 2062 GR A		0.280 2				
03	HOLDING BAR FL 40X16;702			AA1010308599 IS 2062 GR A		3.530 6				
02	OUTER END PLATE SH 4X75X793			150113340000 IS 1079		1.870 2				
01	INNER END PLATE SH 4X75X602			150113340000 IS 1079		1.420 2				

TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT		27.5 VIM (DOUBLE SEAL)					
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.	BHARAT HEAVY ELECTRICALS LTD., UNIT: BOILER AUXILIARIES PLANT. RANIPET - 632 406.		DRN CHD APPD	NAME A.KUMAR S.RAGUNATHAN S.RAGUNATHAN	SIGN Sd.. Sd.. Sd..	DATE 09.01.02	NO.OF VAR.
	DEPT AP	GRADE OF UNTOL DIM PR: QA: 500	SCALE NTS	WEIGHT (KG). 676.960	REF. TO ASSY/OLD DRG.	ITEM NO.	NO. OF ITEMS
	CODE 852	TITLE ASSY OF BASKET-C		CARD CODE U 01	DRAWING NO. 2-52-025-02133		REV 07

REV	DATE	ALTERED A.K
07	31.10.13	CHECKED RSB
BASKET IMPROVED DESIGN INTRODUCED AND TOTAL WEIGHT WAS 686.461		

2-52-025-02134
DRAWING NO.

ALL DIMENSIONS ARE IN MILLIMETRES

FOR PRODUCTION
REF.: PR:QA:590 FOR PAINTING
REF.: PR:QA:500 FOR UNTOL. DIMS.
REF.: APPLICABLE GMS FOR MATL CODE & SPEC

SHOP NOTES:-

- S-1. ASSEMBLE ITEM NO.01, 05 AND 06 BEFORE WELDING TO BASKET.
S-2. INSTALL ELEMENTS BEFORE WELDING OUTER END PLATE ASSY IN PLACE
S-3. ALL OUTSIDE WELDS TO BE HALF 'V' EDGE PREPARED, WELDED AND FLUSH GROUND TO ENSURE EASY INSERTION OF BASKETS IN THE ROTOR COMPARTMENTS.
S-4. PUNCH "BASKET-DC" ON THE ASSEMBLY.
S-5. ROLL ITEM NO. 01 TO IR.4491.

	11	HE CUTTING LIST SH 0.80X850 DU		4-52-025-02873		158117180850 IS 513 DD			428.400 1		
	10	SH 4X75X793				150113340000 IS 1079			1.868 2		
	09	SH 4X75X818				150113340000 IS 1079			1.926 2		
	08	95DEG COR ANGLE SH 4X104X933				150113340000 IS 1079			3.047 1		
	07	90DEG COR ANGLE SH 4X103X933				150113340000 IS 1079			3.018 3		
	06	SPIDER BAR FL 25X12;210				AA1010308505 IS 2062 GR A			0.495 2		
	05	SPIDER BAR FL 25X12;110				AA1010308505 IS 2062 GR A			0.259 4		
	04	HOLDING BAR FL 40X16;866				AA1010308599 IS 2062 GR A			4.351 2		
	03	HOLDING BAR FL 40X16;879				AA1010308599 IS 2062 GR A			4.416 2		
	02	INNER END PLATE SH 4X75X320				150113340000 IS 1079			0.754 2		
	01	OUTER END PLATE SH 4X75X320				150113340000 IS 1079			0.754 2		
VAR NO	ITEM NO	DESCRIPTION	CAT	DRAWING No.	ITEM NO VAR NO	MATL CODE MATL SPECN	A/P/C DI	UNIT QTY	UNIT WT	G.S	ZONE

TYPE OF PRODUCT
OR NAME OF
CUSTOMER/PROJECT
27.5 VIM (DOBLE SEAL)

DRN	NAME A.KUMAR	SIGN Sd..	DATE 09.01.02	NO.OF VAR.
CHD	S.RAGUNATHAN	Sd..		
APPD	S.RAGUNATHAN	Sd..		

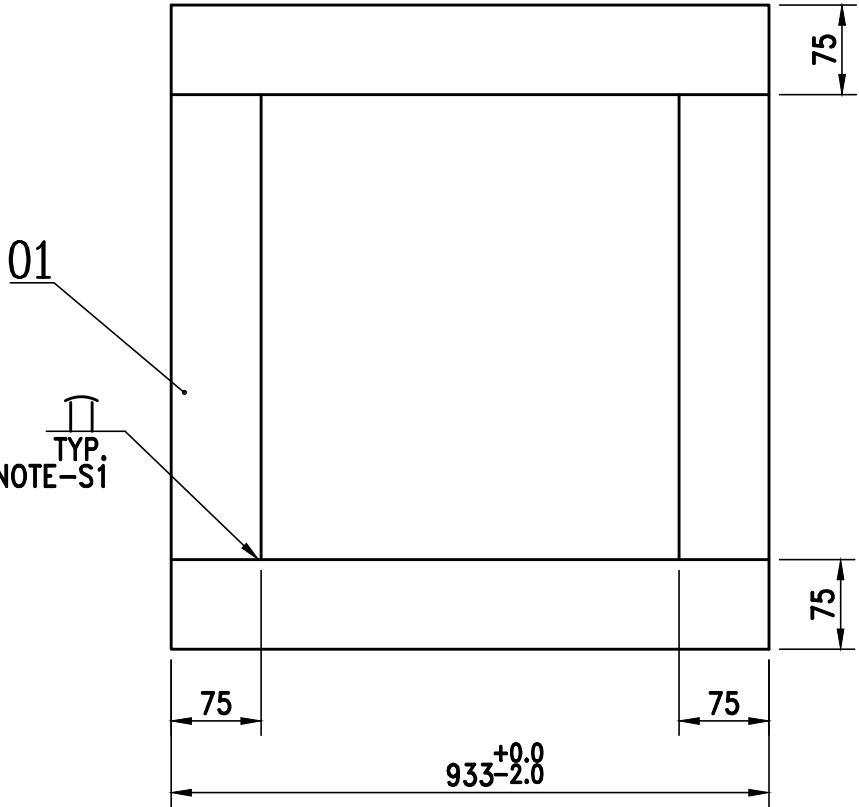
DEPT AP	GRADE OF UNTOL DIM PR: QA: 500	SCALE NTS	WEIGHT (KG). 470.665	REF. TO ASSY/OLD DRG.	ITEM NO.	NO. OF ITEMS
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CARD CODE U 01	DRAWING NO. 2-52-025-02134	REV 06
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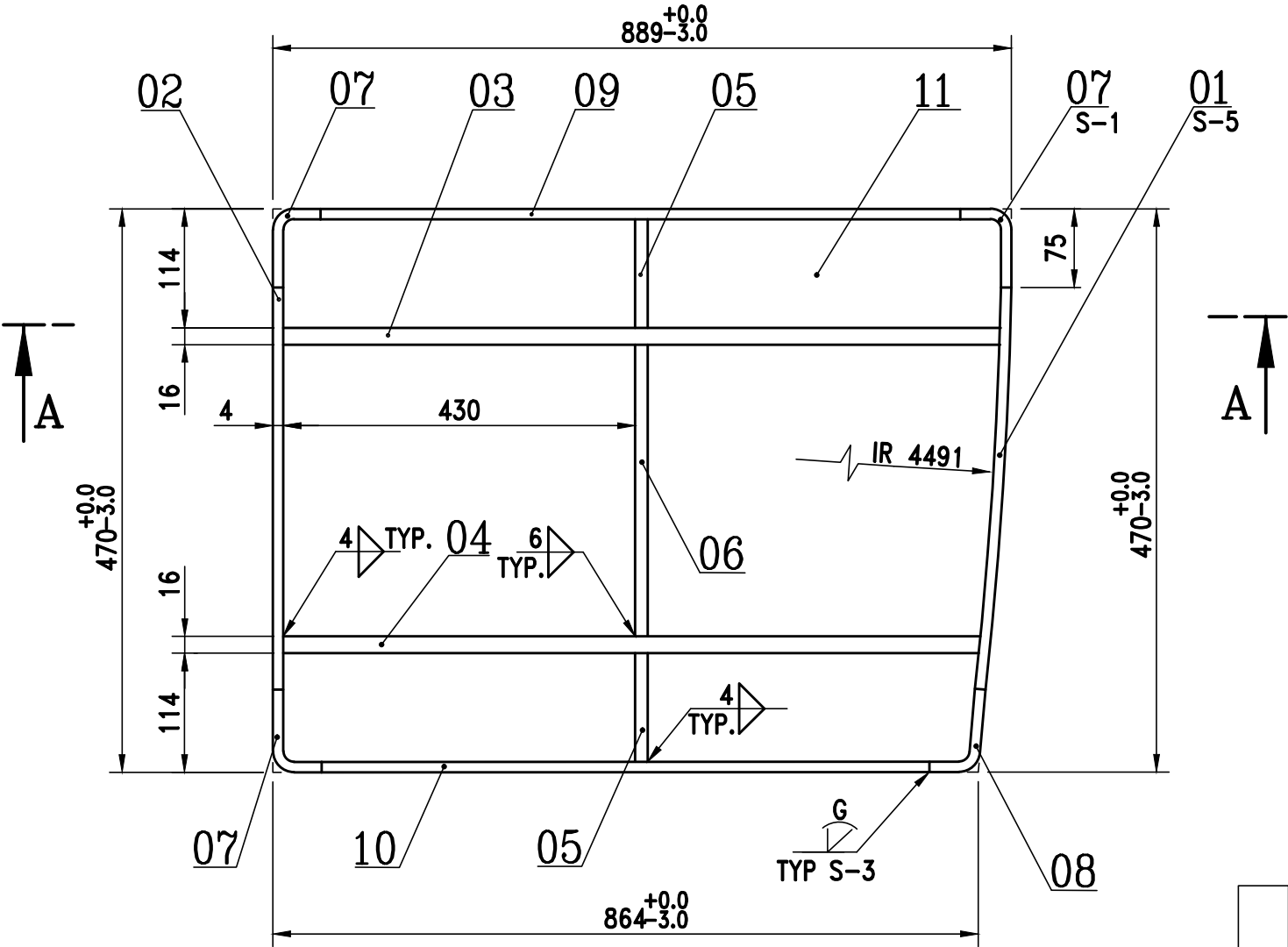
ASSY OF BASKET-DC

REV 06	DATE 20.06.18	ALTERED A.K CHECKED KT	REV 05	DATE 20.11.13	ALTERED A.K CHECKED RSB
ZONE	ITEM-05 LENGTH CORRECTED. TOTAL WT WAS 470.610		ZONE	BASKET IMPROVED DESIGN INTRODUCED AND TOTAL WEIGHT WAS 476.280	

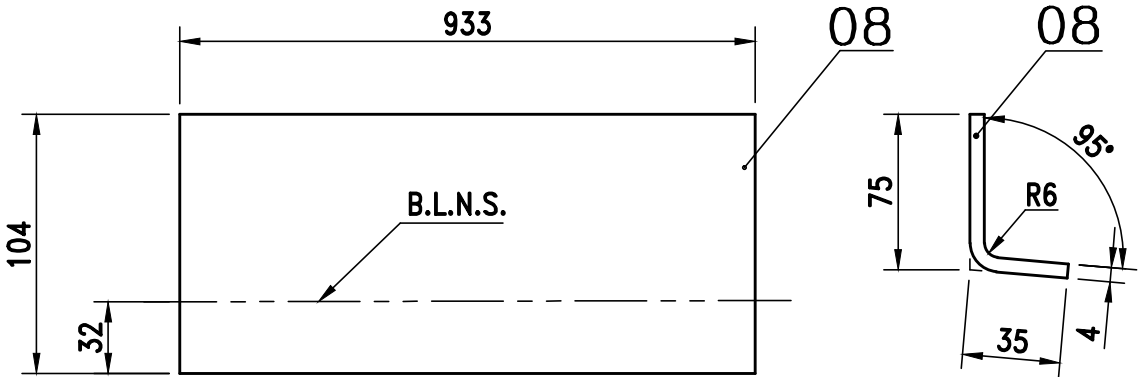
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VIEW FROM RIGHT

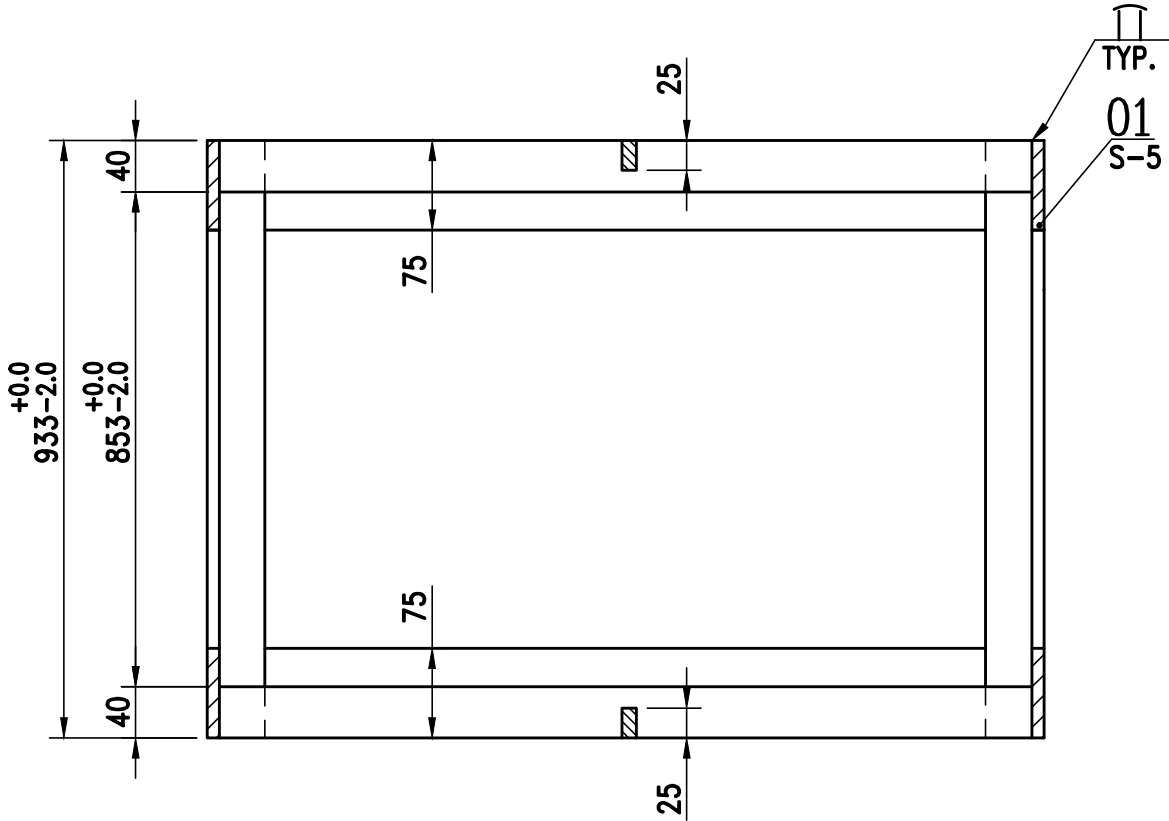


VIEW FROM TOP

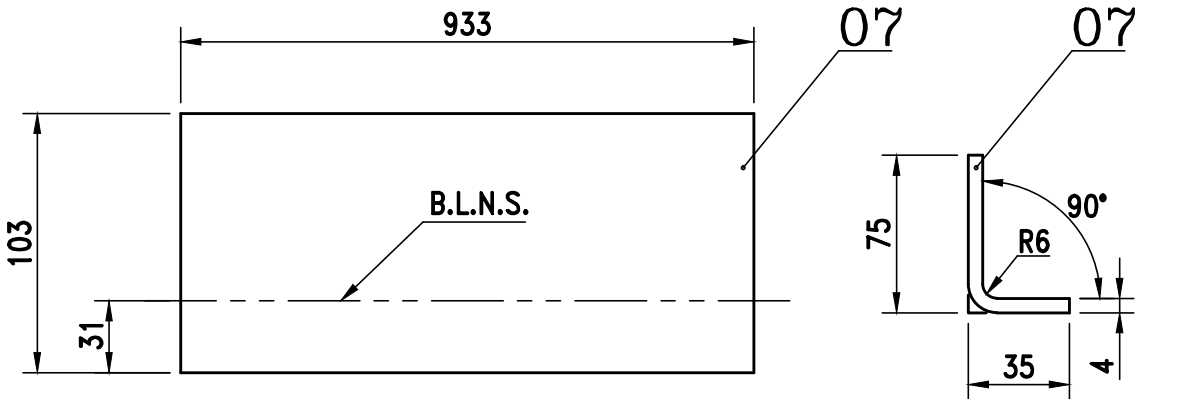


OUTSTRETCHED VIEW

FORMED VIEW



SECTION-AA



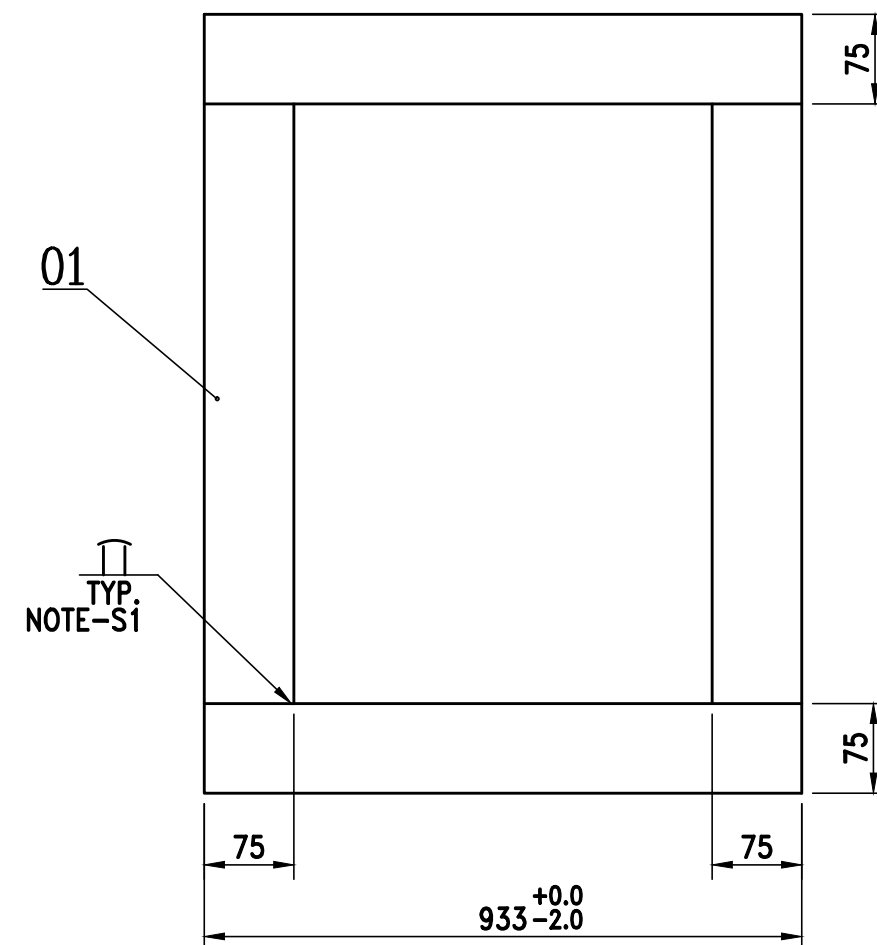
OUTSTRETCHED VIEW

FORMED VIEW

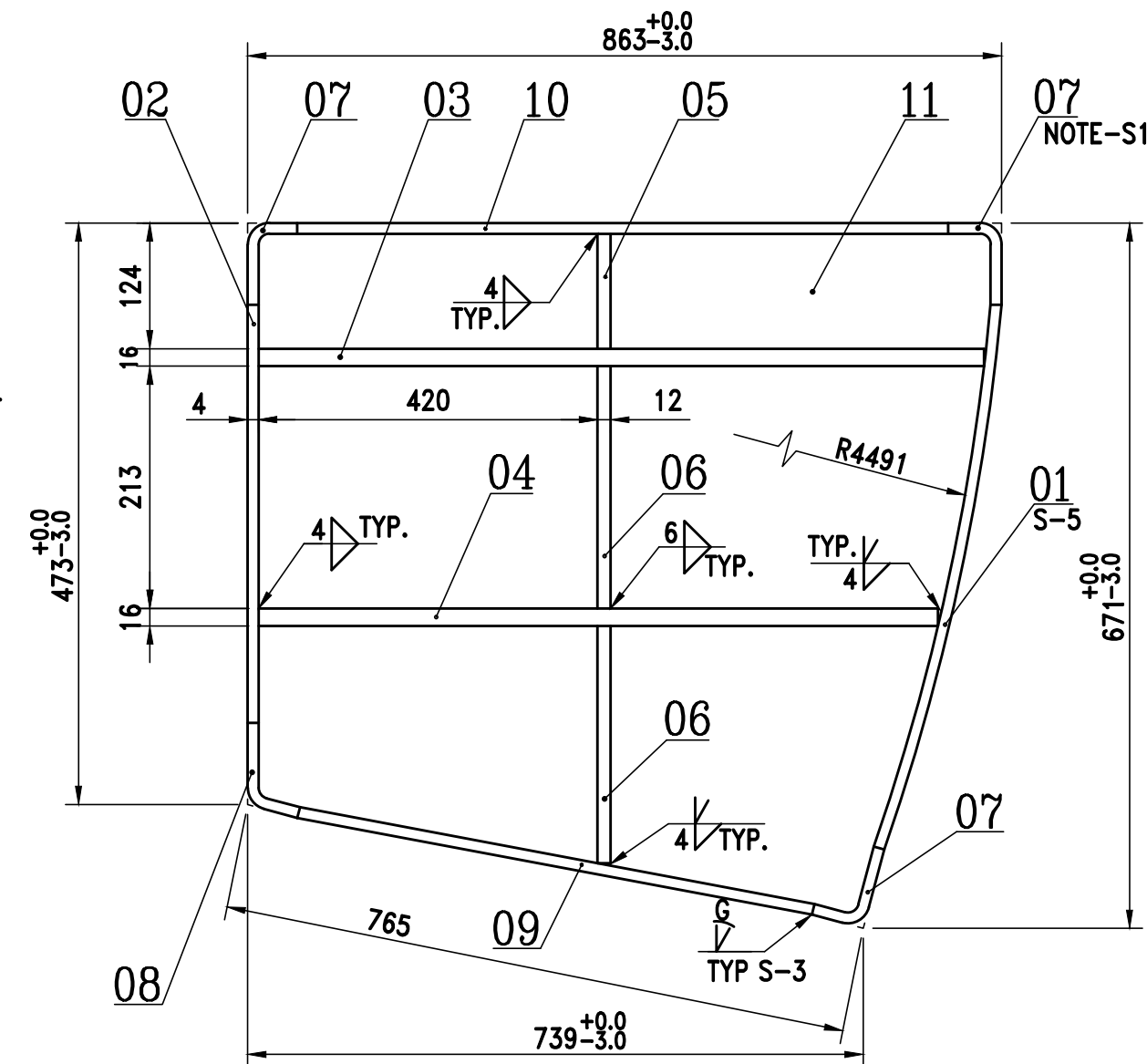
FOR PRODUCTION REF.: PR:QA:590 FOR PAINTING REF.: PR:QA:500 FOR UNTOL. DIMS. REF.: APPLICABLE GMS FOR MATL CODE & SPEC

SHOP NOTES:-

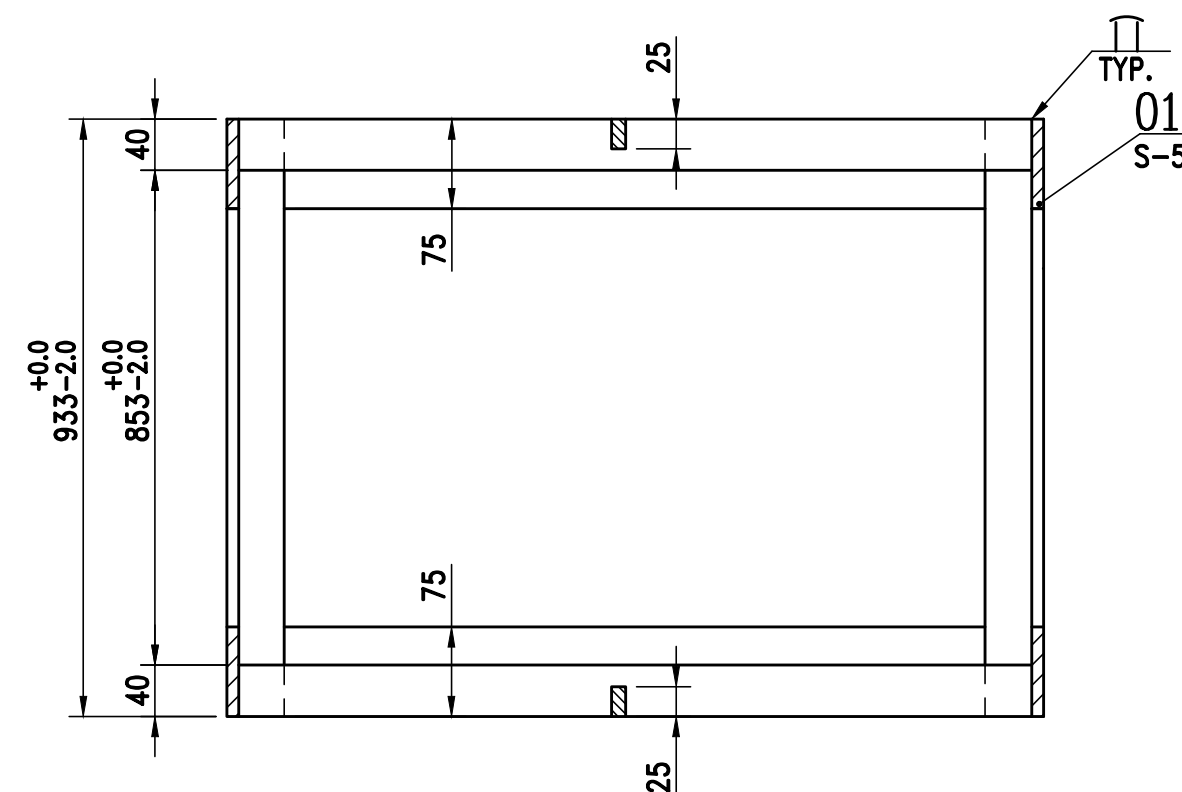
- S-1. ASSEMBLE ITEM NO.01 AND 07 BEFORE WELDING TO BASKET.
- S-2. INSTALL ELEMENTS BEFORE WELDING OUTER END PLATE ASSY IN PLACE
- S-3. ALL OUTSIDE WELDS TO BE HALF 'V' EDGE PREPARED, WELDED AND FLUSH GROUND TO ENSURE EASY INSERTION OF BASKETS IN THE ROTOR COMPARTMENTS.
- S-4. PUNCH "BASKET-E27.5" ON THE ASSEMBLY.
- S-5. ROLL ITEM NO. 01 TO IR.4491.



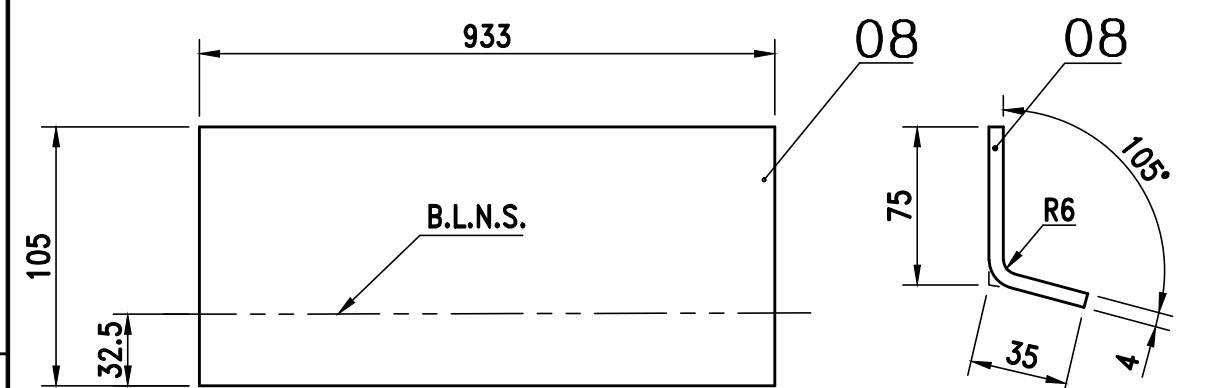
VIEW FROM RIGHT



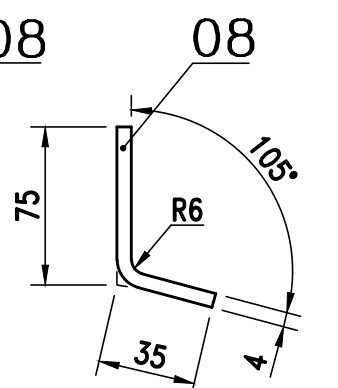
VIEW FROM TOP



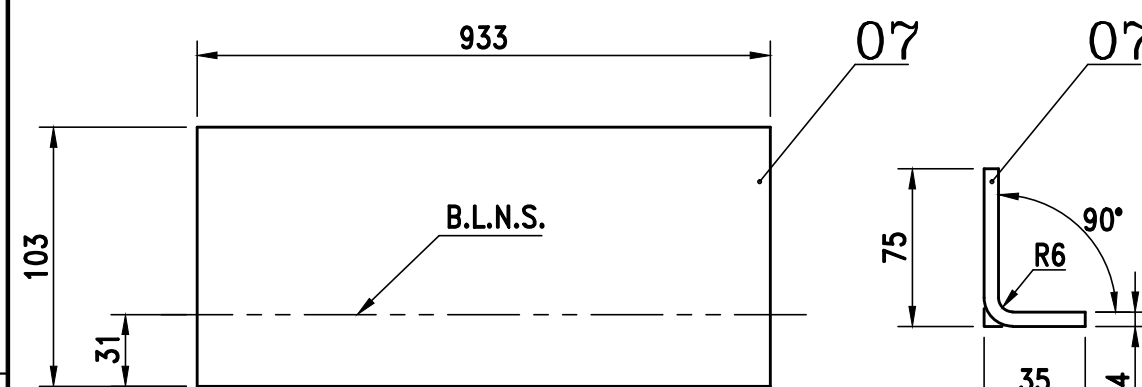
SECTION-AA



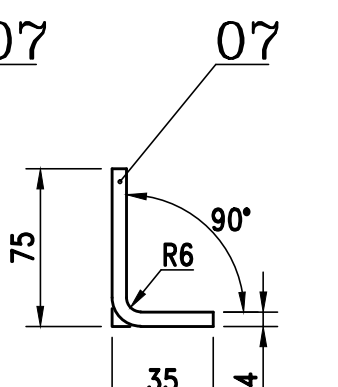
OUTSTRETCHED VIEW



FORMED VIEW



OUTSTRETCHED VIEW



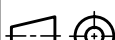
FORMED VIEW

	11	HE CUTTING LIST SH 0.80X850 DU		4-52-025-02874		158117180850			488.750		
						IS 513 DD			1		
	10	SH 4X75X792				150113340000			1.870		
						IS 1079			2		
	09	SH 4X75X694				150113340000			1.630		
						IS 1079			2		
	08	105DEG COR ANGLE SH 4X105X933				150113340000			3.080		
						IS 1079			1		
	07	90DEG COR ANGLE SH 4X103X933				150113340000			3.020		
						IS 1079			3		
	06	SPIDER BAR FL 25X12;213				AA1010308505			0.500		
						IS 2062 GR A			4		
	05	SPIDER BAR FL 25X12;120				AA1010308505			0.280		
						IS 2062 GR A			2		
	04	HOLDING BAR FL 40X16;800				AA1010308599			4.020		
						IS 2062 GR A			2		
	03	HOLDING BAR FL 40X16;838				AA1010308599			4.210		
						IS 2062 GR A			2		
	02	INNER END PLATE SH 4X75X323				150113340000			0.760		
						IS 1079			2		
	01	OUTER END PLATE SH 4X75X532				150113340000			1.250		
						IS 1079			2		
VAR NO	ITEM NO	DESCRIPTION	CAT	DRAWING No.	ITEM NO VAR NO	MATL CODE MATL SPECN	A/P/C DI	UNIT DI	UNIT WT QTY	G.S	ZONE

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	
---	--

27.5 VIM (DOUBLE SEAL)

BHARAT HEAVY ELECTRICALS LTD., UNIT: BOILER AUXILIARIES PLANT. RANIPET - 632 406.					DRN	NAME A.KUMAR	SIGN Sd..	DATE 09.01.02	NO. OF VAR.
					CHD	S.RAGUNATHAN	Sd..		
					APPD	S.RAGUNATHAN	Sd..		
DEPT AP	GRADE OF UNTOLD DIM		SCALE	WEIGHT (KG).	REF. TO ASSY/OLD DRG.			ITEM NO.	NO. OF ITEMS
CODE 852	PR: QA: 500		NTS	530.930					
TITLE					CARD CODE	DRAWING NO.			REV
ASSY OF BASKET-E27.5					U 01	2-52-025-02135			06

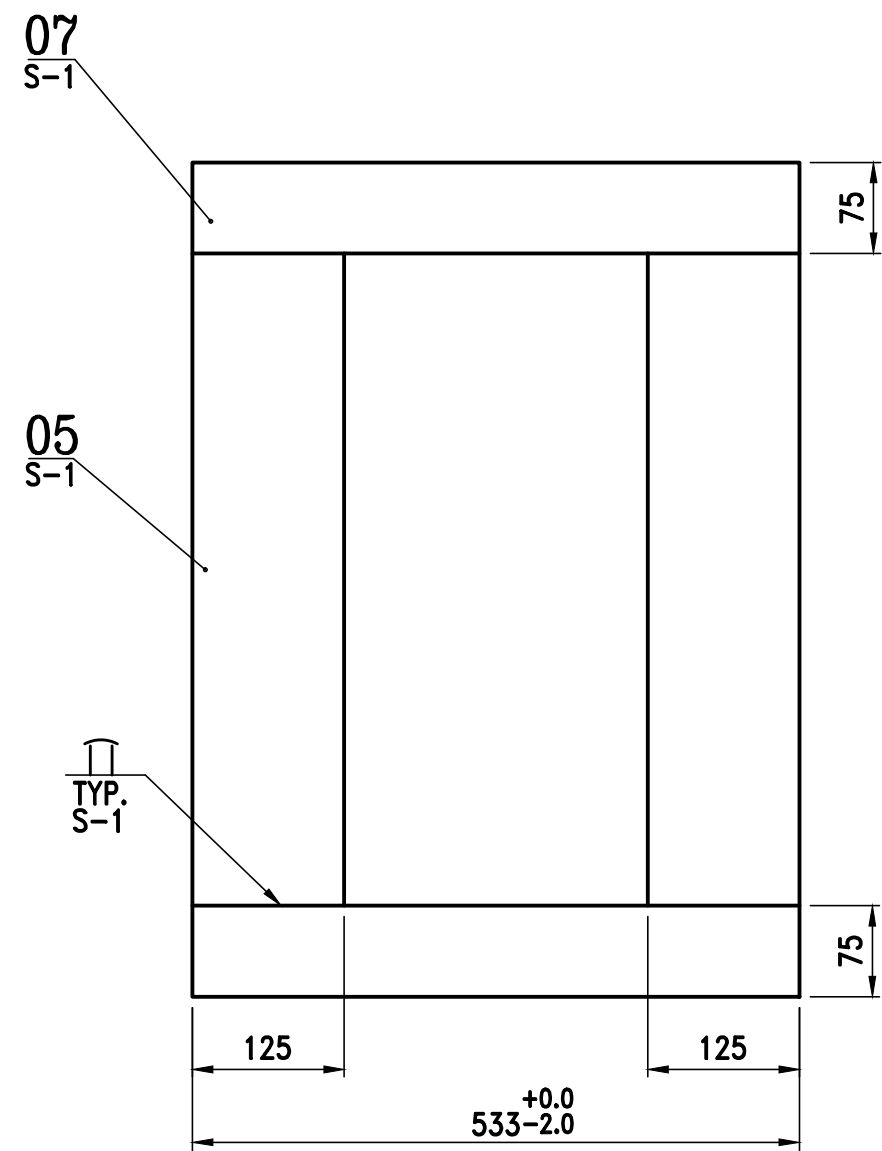
2-52-025-02462
DRAWING NO.

ALL DIMENSIONS ARE IN MILLIMETRES

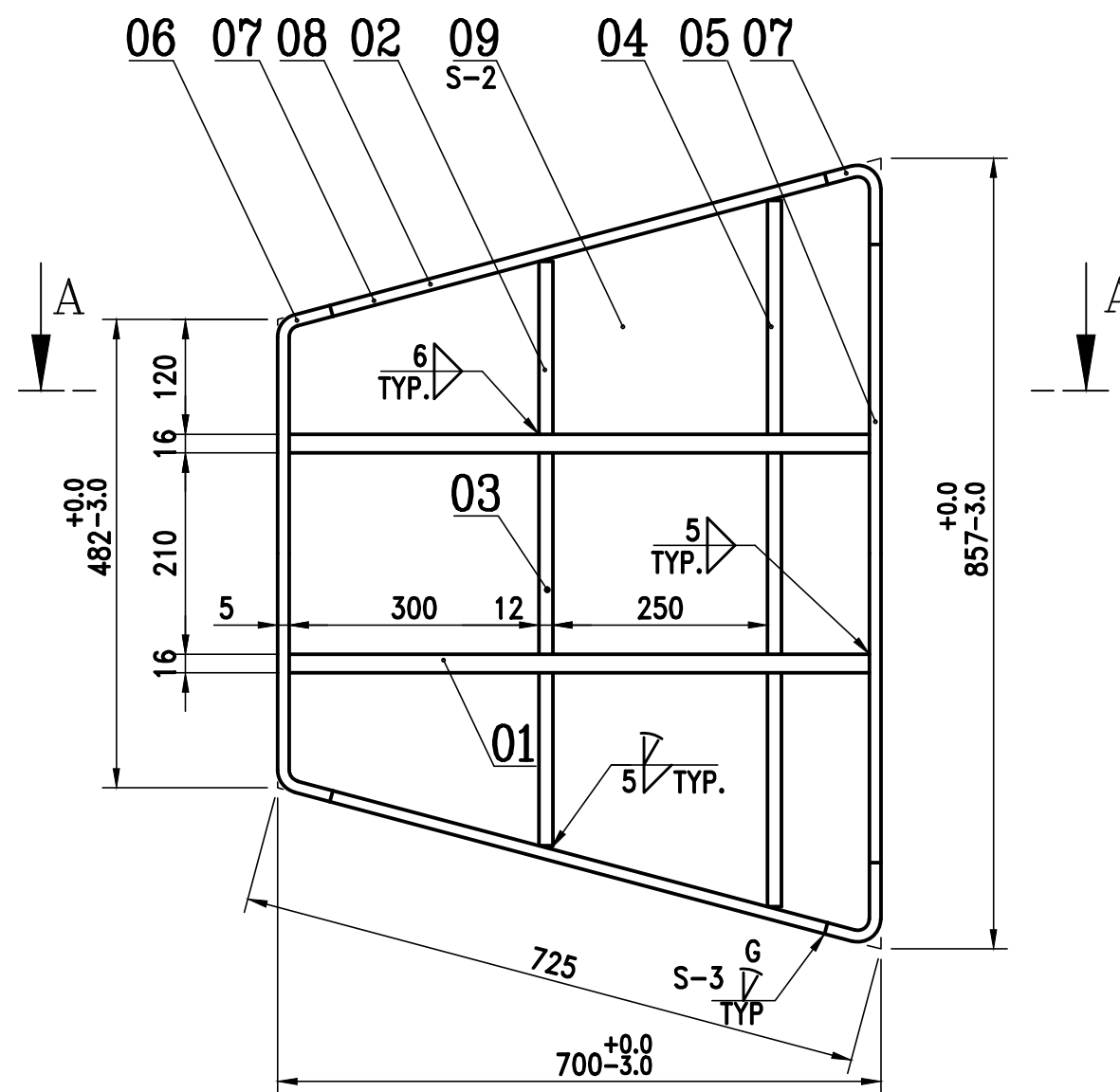
FOR PRODUCTION
REF.: PRQA : 590 FOR PAINTING
REF.: PRQA : 500 FOR UNTOL. DIMNS.

SHOP NOTES:-

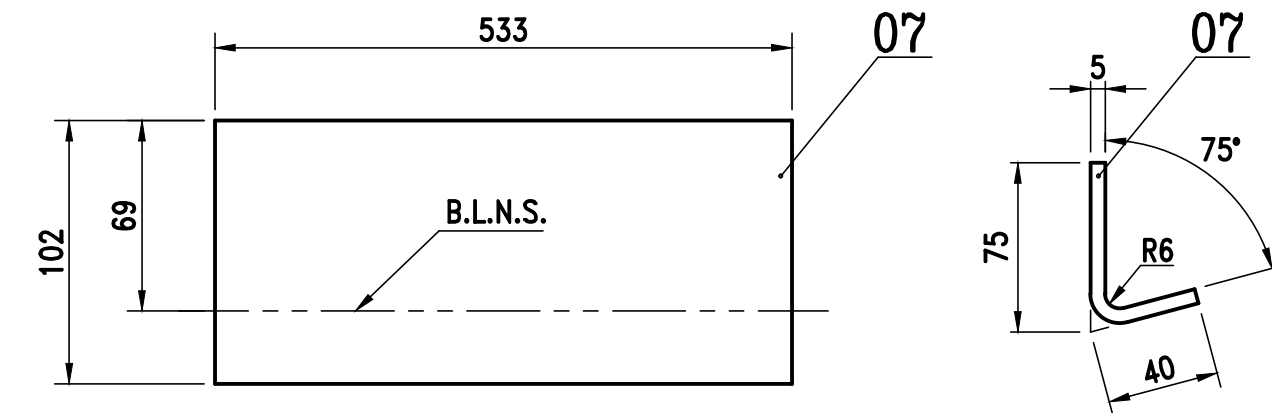
- S-1. ASSEMBLE OUTER END PLATES ITEM NO.04, AND 75° CORNER ANGLES BEFORE WELDING TO BASKET.
S-2. INSTALL ELEMENTS BEFORE WELDING OUTER END PLATE ASSY IN PLACE
S-3. PUNCH "BASKET-AB" ON THE ASSEMBLY.



VIEW FROM RIGHT

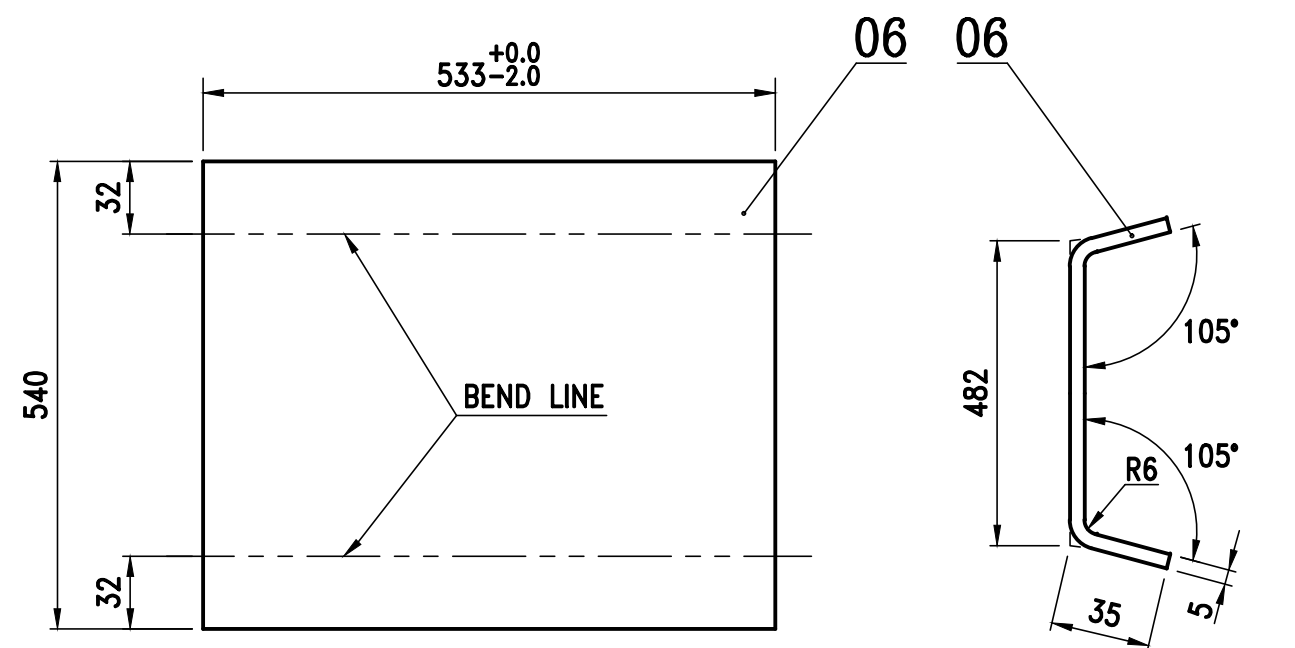


VIEW FROM TOP



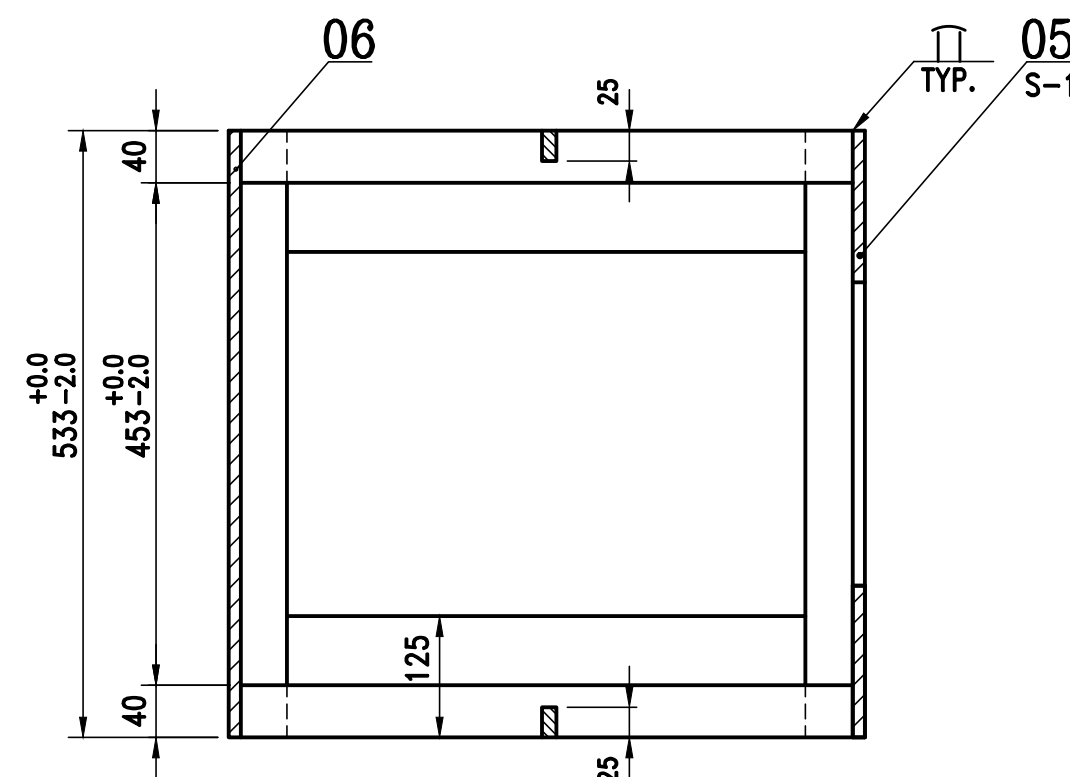
OUTSTRETCHED VIEW

FORMED VIEW



OUTSTRETCHED VIEW

FORMED VIEW



SECTION-AA

VAR NO	ITEM NO	DESCRIPTION	CAT	DRAWING No.	ITEM NO VAR NO	MATL CODE MATL SPECN	A/P/C DI	UNIT QTY	UNIT WT	G.S	ZONE
	09	HE CUTTING LIST SH 0.63X450 DU	4-52-025-03136			158117150450 IS 513 DD		204.750 1			
	08	PL 5X125X649				AA1011808013 IS 2062 GR A		3.184 4			
	07	75 DEG COR ANGLE PL 5X102X533				AA1011808013 IS 2062 GR A		2.134 2			
	06	INNER END PLATE PL 5X540X533				AA1011808013 IS 2062 GR A		11.297 1			
	05	OUTER END PLATE PL 5X125X707				AA1011808013 IS 2062 GR A		3.459 2			
	04	SPIDER BAR FL 25X12;267				AA1010308505 IS 2062 GR A		0.628 4			
	03	SPIDER BAR FL 25X12;210				AA1010308505 IS 2062 GR A		0.495 4			
	02	SPIDER BAR FL 25X12;197				AA1010308505 IS 2062 GR A		0.464 4			
	01	HOLDING BAR FL 40X16;689				AA1010308599 IS 2062 GR A		3.460 4			

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TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT														
				BHARAT HEAVY ELECTRICALS LTD., UNIT: BOILER AUXILIARIES PLANT. RANIPET - 632 406.				DRN	NAME A.KUMAR	SIGN	DATE 21.08.05	NO.OF VAR.		
								CHD	SR					
								APPD	GRV					
DEPT AP		GRADE OF UNTOL.DIM PR: QA: 500				SCALE NTS		WEIGHT (KG). 260.157		REF. TO ASSY/OLD DRG.		ITEM NO.	NO. OF ITEMS	
CODE 852		TITLE ASSY OF BASKET-AB (HOT END)										CARD CODE U 01	DRAWING NO. 2-52-025-02462	REV 02

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.

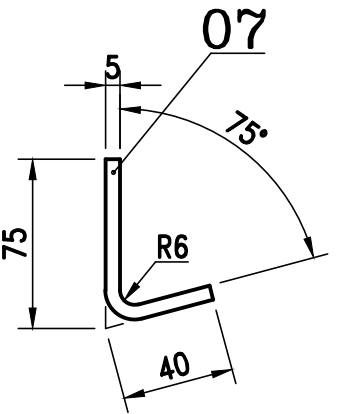
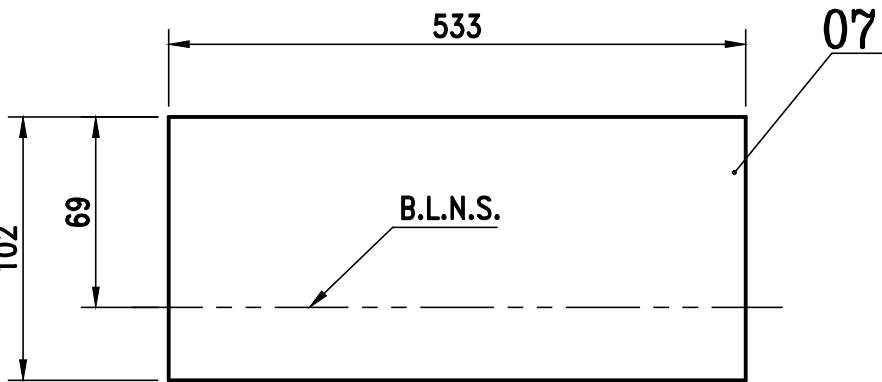
REV	DATE	ALTERED A.K
02	16.07.11	CHECKED RSB
BASKET IMPROVED DESIGN INTRODUCED AND TOTAL WEIGHT WAS 261.405		

2-52-025-02463
DRAWING NO.

ALL DIMENSIONS ARE IN MILLIMETRES
FOR PRODUCTION
REF.: PR:QA:590 FOR PAINTING
REF.: PR:QA:500 FOR UNTOL. DIMS.
REF.: APPLICABLE GMS FOR MATL CODE & SPEC

SHOP NOTES:-

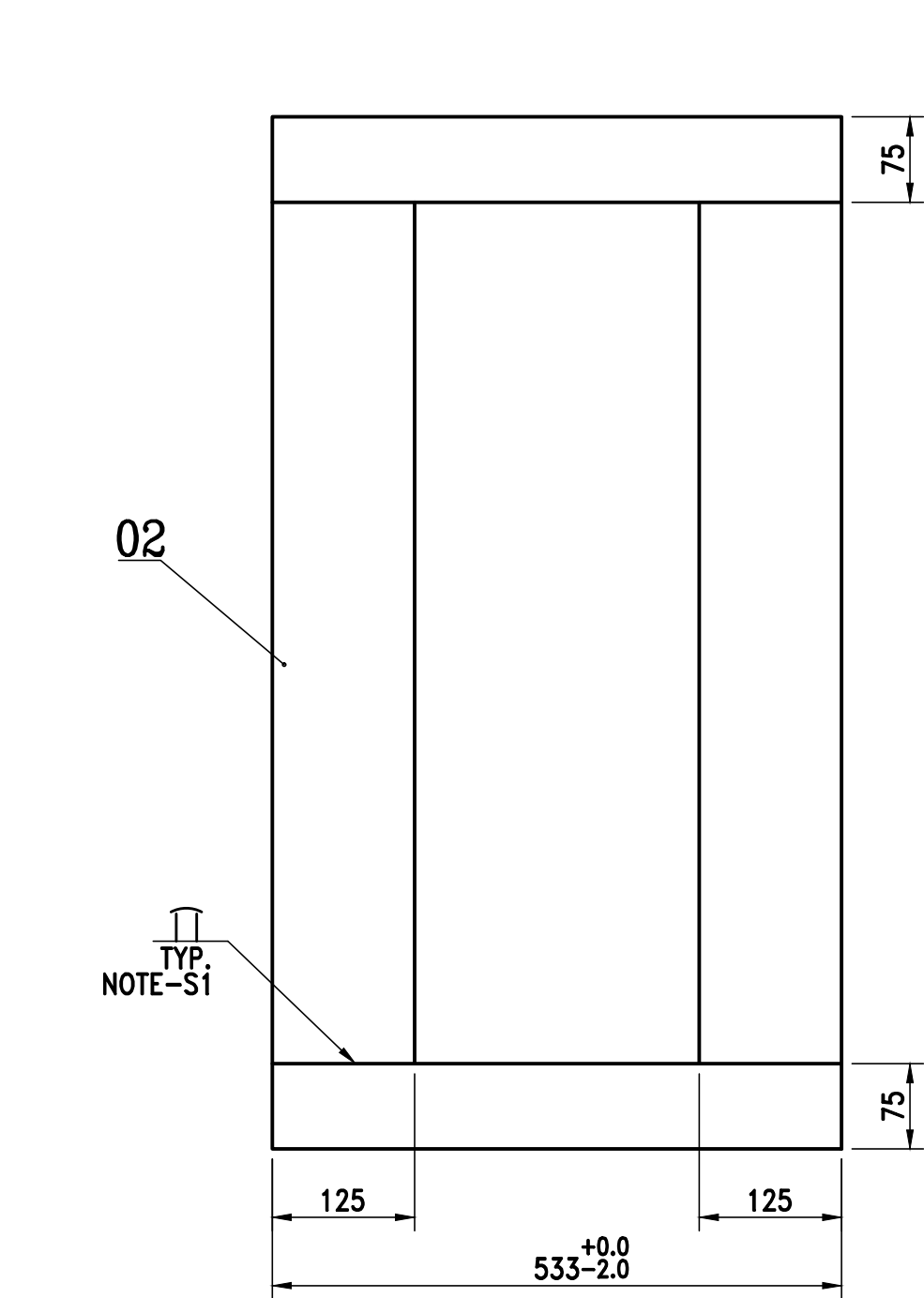
- S-1. ASSEMBLE OUTER END PLATES ITEM NO.02 AND 75° CORNER ANGLES BEFORE WELDING TO BASKET.
S-2. INSTALL ELEMENTS BEFORE WELDING OUTER END PLATE ASSY IN PLACE
S-3. ALL OUTSIDE WELDS TO BE HALF 'V' EDGE PREPARED, WELDED AND FLUSH GROUND TO ENSURE EASY INSERTION OF BASKETS IN THE ROTOR COMPARTMENTS.
S-4. PUNCH "BASKET-C" ON THE ASSEMBLY.



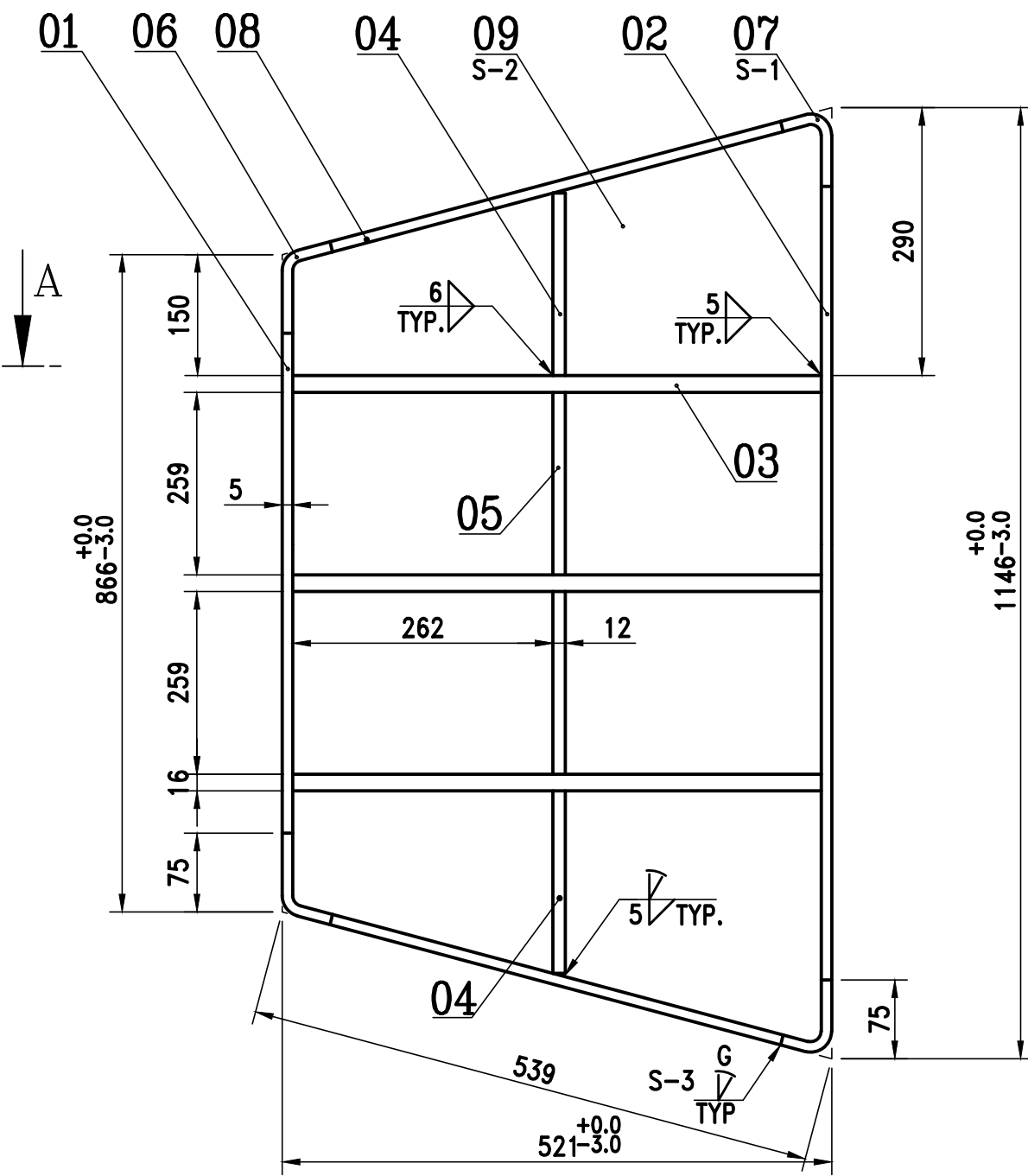
OUTSTRETCHED VIEW

FORMED VIEW

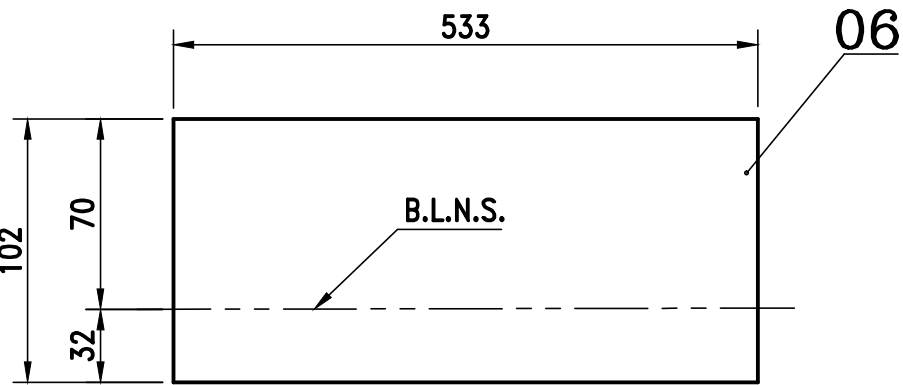
	09	HE CUTTING LIST SH 0.63X450 DU		4-52-025-03137		158117150450			229.050		
						IS 513 DD			1		
	08	PL 5X125X466				AA1011808013			2.286		
						IS 2062 Gr A			4		
	07	75DEG COR ANGLE PL 5X102X533				AA1011808013			2.134		
						IS 2062 Gr A			2		
	06	105DEG COR ANGLE PL 5X102X533				AA1011808013			2.134		
						IS 2062 Gr A			2		
	05	SPIDER BAR FL 25X12;259				AA1010308505			0.610		
						IS 2062 Gr A			4		
	04	SPIDER BAR FL 25X12;216				AA1010308505			0.509		
						IS 2062 Gr A			4		
	03	HOLDING BAR FL 40X16;511				AA1010308599			2.567		
						IS 2062 Gr A			6		
	02	OUTER END PLATE PL 5X125X997				AA1011808013			4.892		
						IS 2062 Gr A			2		
	01	INNER END PLATE PL 5X125X716				AA1011808013			3.513		
						IS 2062 Gr A			2		
VAR NO	ITEM NO	DESCRIPTION	CAT	DRAWING No.	ITEM NO VAR NO	MATL CODE MATL SPECN	A/P/C DI	UNIT QTY	UNIT WT	G.S	ZONE



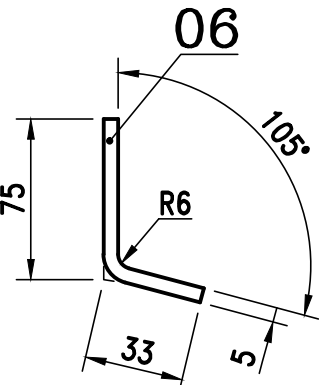
VIEW FROM RIGHT



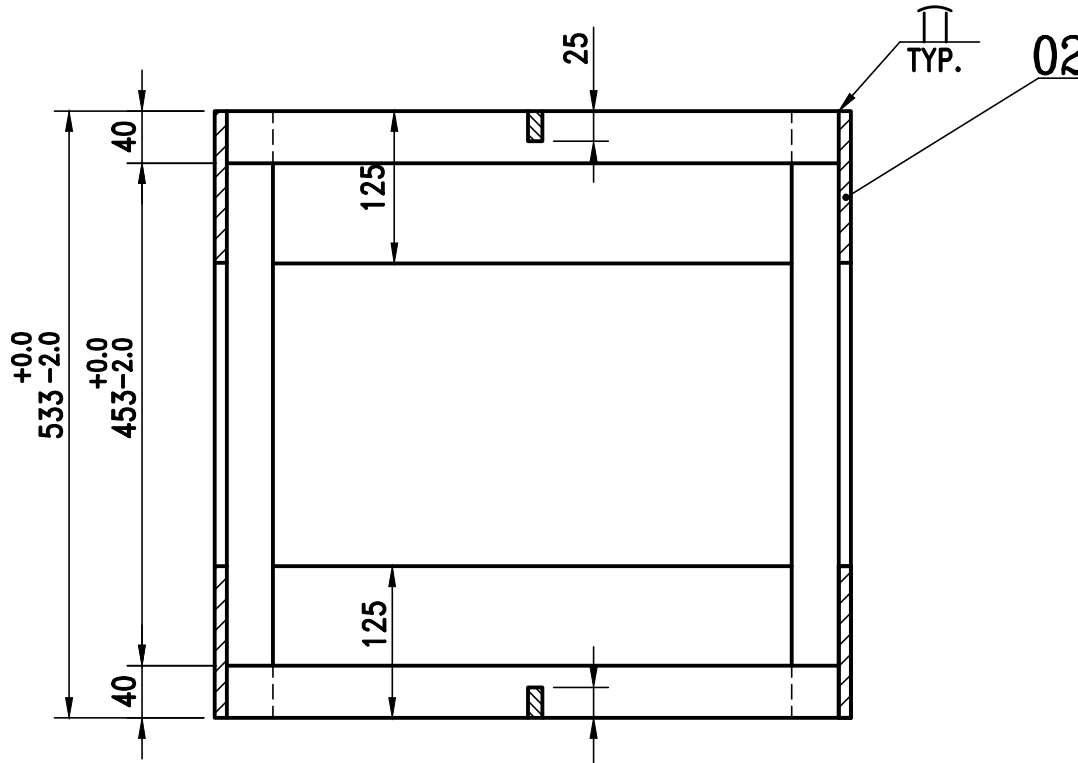
VIEW FROM TOP



OUTSTRETCHED VIEW



FORMED VIEW



SECTION-AA

REV 02	DATE 18.07.11	ALTERED A.K CHECKED S.R
ZONE	BASKET IMPROVED DESIGN INTRODUCED AND TOTAL WEIGHT WAS 286.700	

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TYPE OF PRODUCT
OR NAME OF
CUSTOMER/PROJECT

BHARAT HEAVY ELECTRICALS LTD.,
UNIT: BOILER AUXILIARIES PLANT.
RANIPET - 632 406.

DRN	NAME A.KUMAR	SIGN Sd..	DATE 21.06.05	NO.OF VAR.
CHD	SR	Sd..		
APPD	SR	Sd..		

DEPT
AP

GRADE OF
UNTOL DIM
PR: QA: 500

SCALE
NTS

WEIGHT (KG).
283.418

REF. TO ASSY/OLD DRG.

ITEM NO.
U 01

NO. OF
ITEMS
02

DRAWING NO.
2-52-025-02463

REV
02

TITLE
ASSY OF BASKET-C
(HOT END)

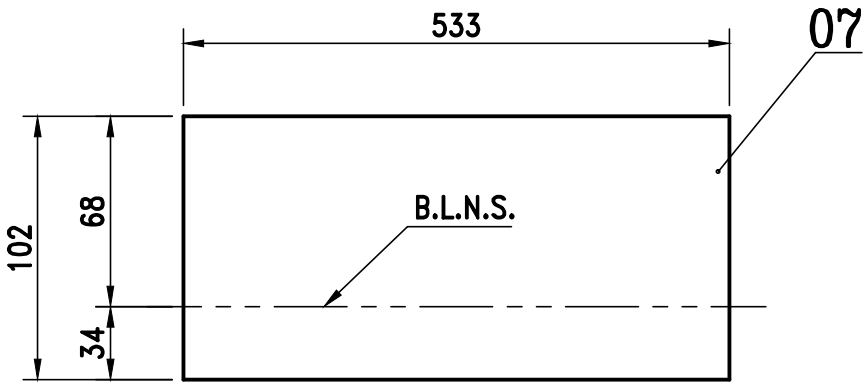
2-52-025-02464
DRAWING NO.

ALL DIMENSIONS ARE IN MILLIMETRES

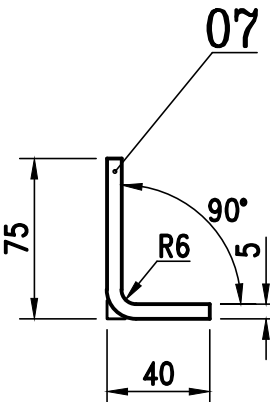
FOR PRODUCTION
REF.: PR:QA:590 FOR PAINTING
REF.: PR:QA:500 FOR UNTOL. DIMS.
REF.: APPLICABLE GMS FOR MATL CODE & SPEC

SHOP NOTES:-

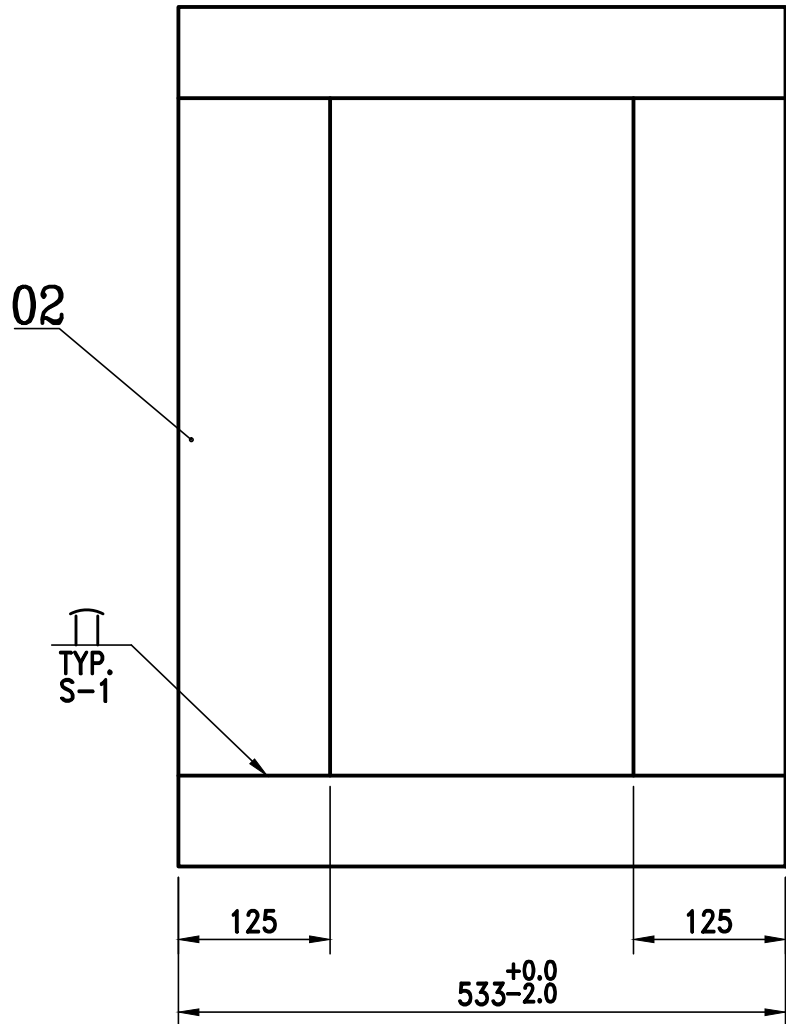
- S-1. ASSEMBLE OUTER END PLATES ITEM NO.02, 75° AND 90° CORNER ANGLES BEFORE WELDING TO BASKET.
- S-2. INSTALL ELEMENTS BEFORE WELDING OUTER END PLATE ASSY IN PLACE
- S-3. ALL OUTSIDE WELDS TO BE HALF 'V' EDGE PREPARED, WELDED AND FLUSH GROUND TO ENSURE EASY INSERTION OF BASKETS IN THE ROTOR COMPARTMENTS.
- S-4. PUNCH "BASKET-D" ON THE ASSEMBLY.



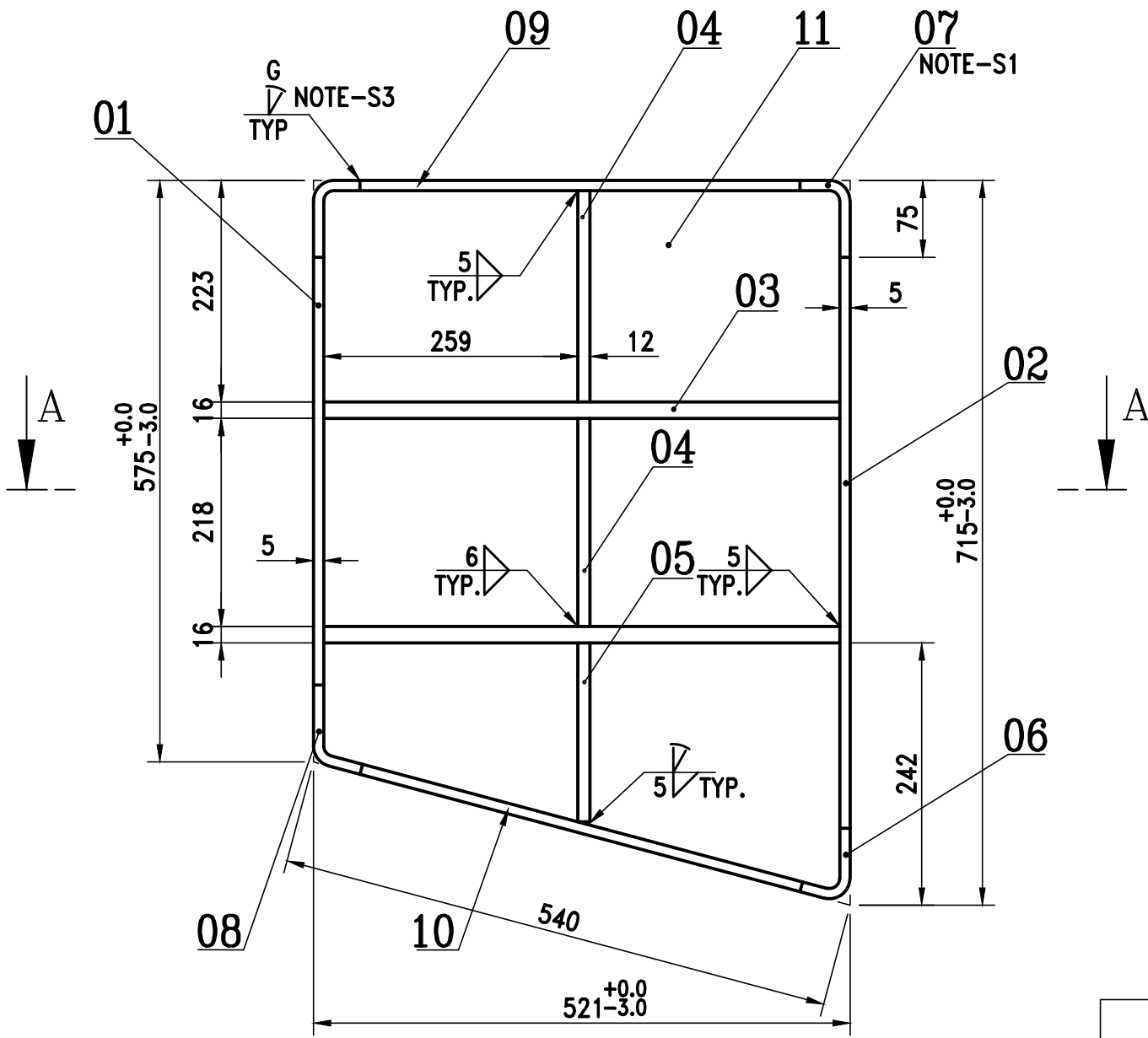
OUTSTRETCHED VIEW



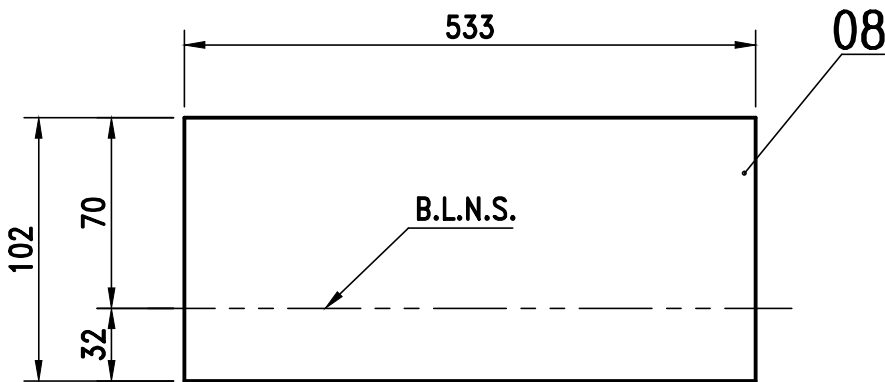
FORMED VIEW



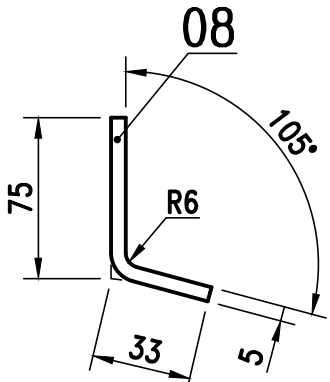
VIEW FROM RIGHT



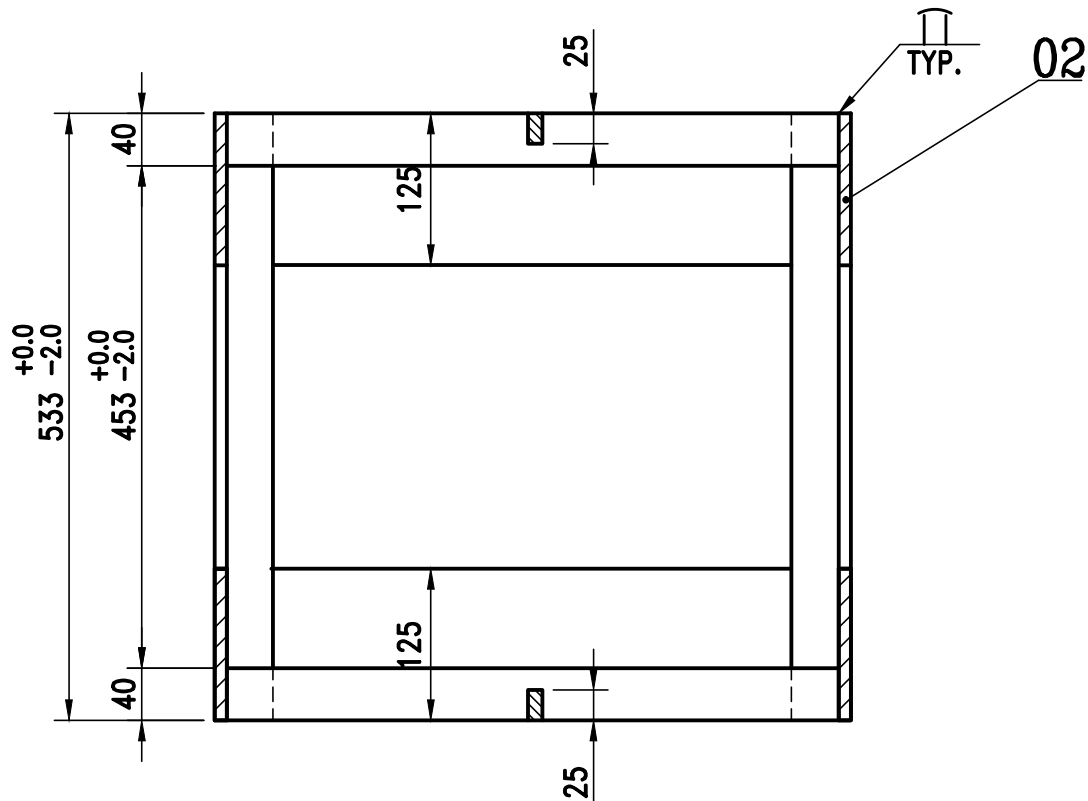
VIEW FROM TOP



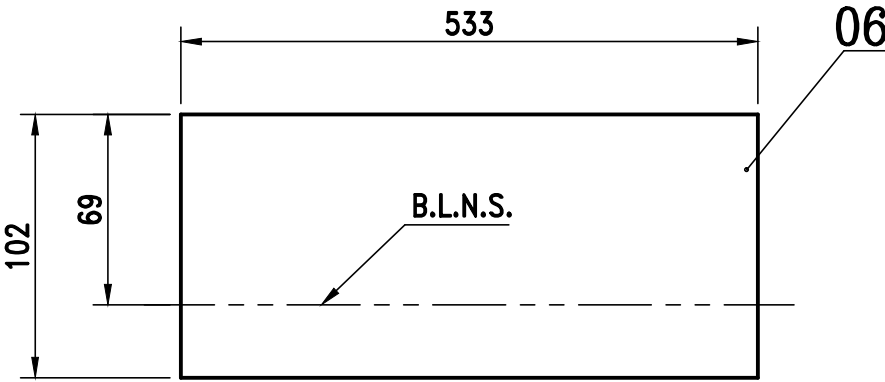
OUTSTRETCHED VIEW



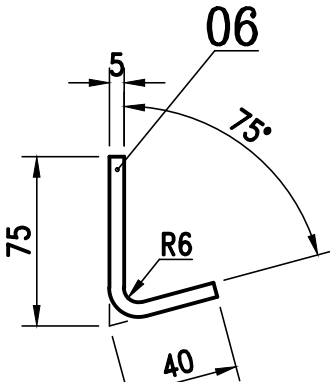
FORMED VIEW



SECTION-AA



OUTSTRETCHED VIEW



FORMED VIEW

11	HE CUTTING LIST SH 0.63X450 DU	4-52-025-03138	158117150450 IS 513 DD	146.250 1
10	PL 5X125X467		AA1011808013 IS 2062 Gr A	2.291 2
09	PL 5X125X441		AA1011808013 IS 2062 Gr A	2.164 2
08	105DEG COR ANG PL 5X102X533		AA1011808013 IS 2062 Gr A	2.134 1
07	90DEG COR ANGL PL 5X102X533		AA1011808013 IS 2062 Gr A	2.134 2
06	75DEG COR ANGLE PL 5X102X533		AA1011808013 IS 2062 Gr A	2.134 1
05	SPIDER BAR FL 25X12;168		AA1010308505 IS 2062 Gr A	0.396 2
04	SPIDER BAR FL 25X12;218		AA1010308505 IS 2062 Gr A	0.513 4
03	HOLDING BAR FL 40X16;511		AA1010308599 IS 2062 Gr A	2.567 4
02	OUTER END PLATE PL 5X125X565		AA1011808013 IS 2062 Gr A	2.878 2
01	INNER END PLATE PL 5X125X425		AA1011808013 IS 2062 Gr A	2.169 2

VAR NO	ITEM NO	DESCRIPTION	CAT	DRAWING No.	ITEM NO VAR NO	MATL CODE MATL SPECN	A/P/C DI	UNIT QTY	UNIT WT	G.S ZONE
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TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT									
BHARAT HEAVY ELECTRICALS LTD., UNIT: BOILER AUXILIARIES PLANT. RANIPET - 632 406.				DRN	AK	NAME	SIGN	DATE	NO. OF VAR.
				CHD	SR		Sd..	21.06.05	
				APPD	GRV		Sd..		
DEPT AP	GRADE OF UNTOL DIM PR: QA: 500	SCALE NTS	WEIGHT (KG). 186.902	REF. TO ASSY/OLD DRG.			ITEM NO.	NO. OF ITEMS	
CODE 852	TITLE ASSY OF BASKET-D (HOT END)			CARD CODE U 01	DRAWING NO. 2-52-025-02464			REV 02	

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REV 02	DATE 18.07.11	ALTERED A.K CHECKED RSB
ZONE	BASKET IMPROVED DESIGN INTRODUCED AND TOTAL WEIGHT WAS 189.917	

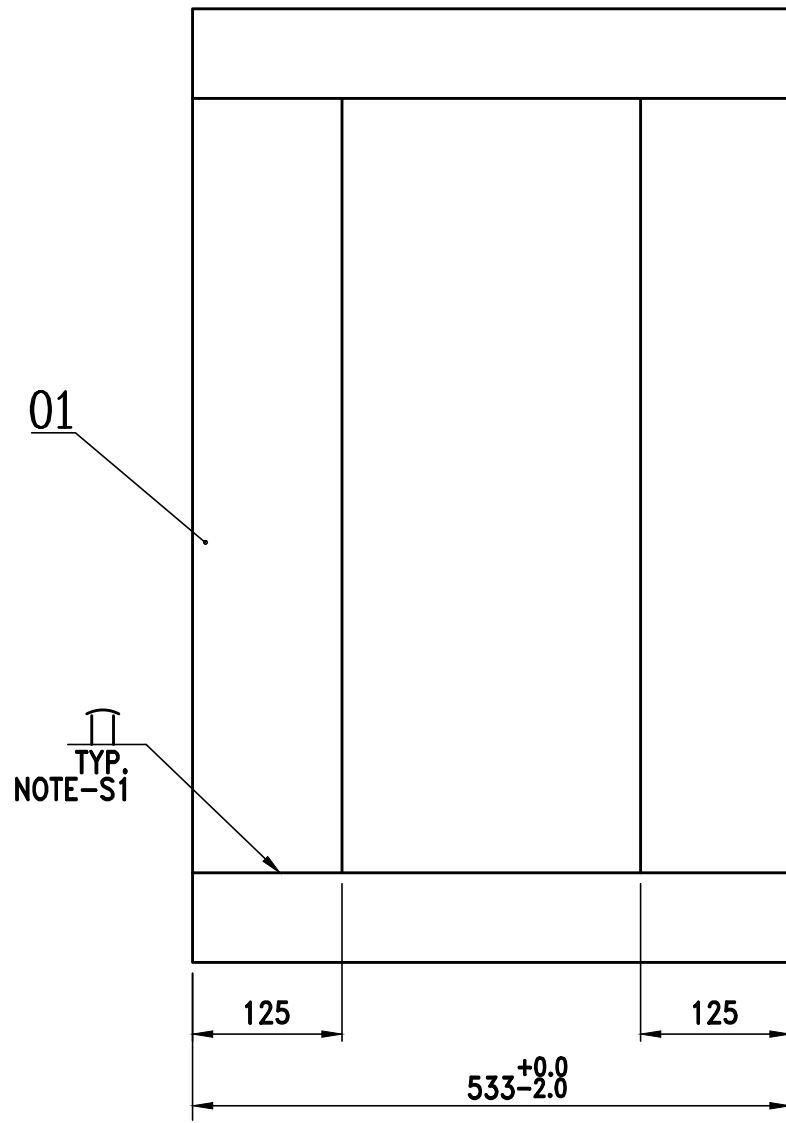
2-52-025-02465
DRAWING NO.

ALL DIMENSIONS ARE IN MILLIMETRES

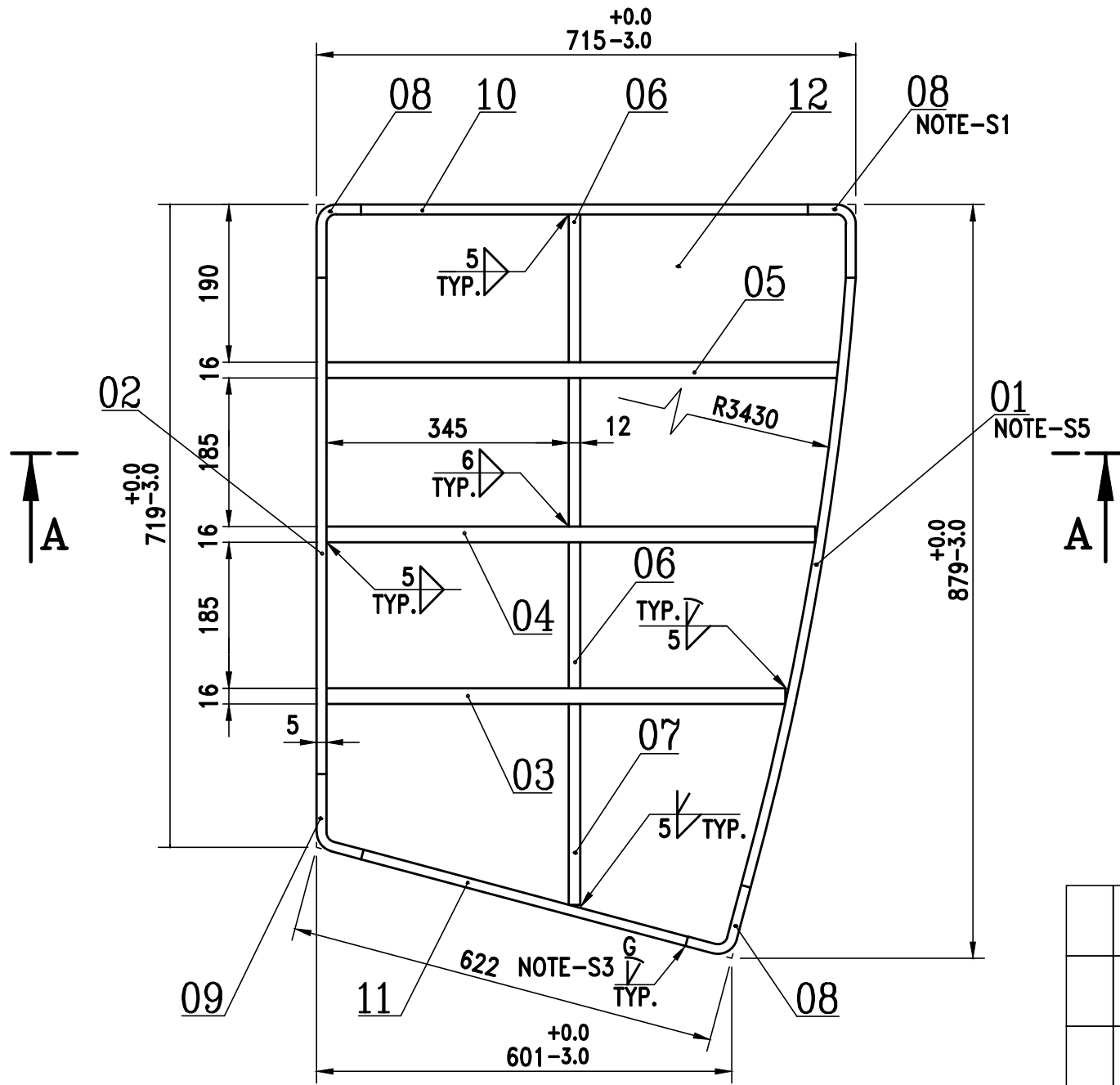
FOR PRODUCTION
REF.: PRQA : 590 FOR PAINTING
REF.: PRQA : 500 FOR UNTOL DIMNS.

SHOP NOTES:-

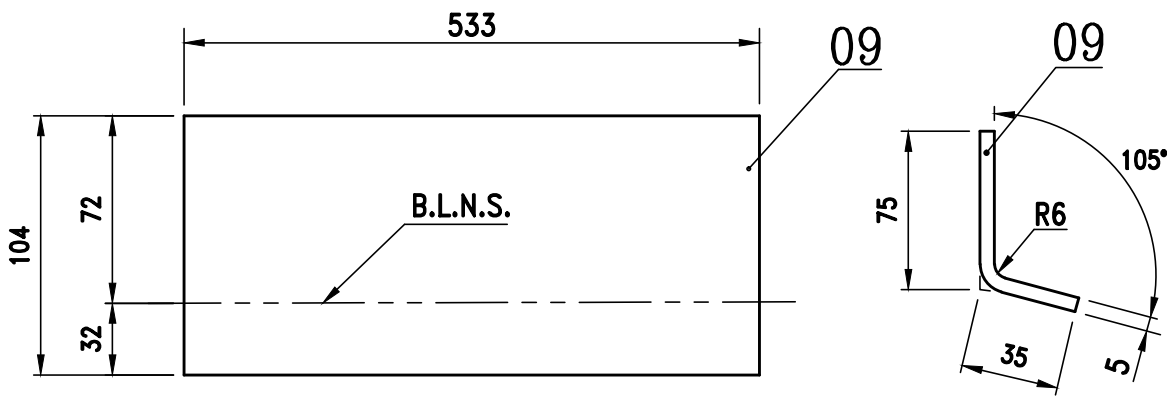
- S-1. ASSEMBLE OUTER END PLATES ITEM NO.01, AND 90° CORNER ANGLES ITEM NO.08 BEFORE WELDING TO BASKET.
S-2. INSTALL ELEMENTS BEFORE WELDING OUTER END PLATE ASSY IN PLACE
S-3. PUNCH "BASKET-E24.5" ON THE ASSEMBLY.
S-4. ROLL ITEM NO. 01 TO IR.3430.



VIEW FROM RIGHT

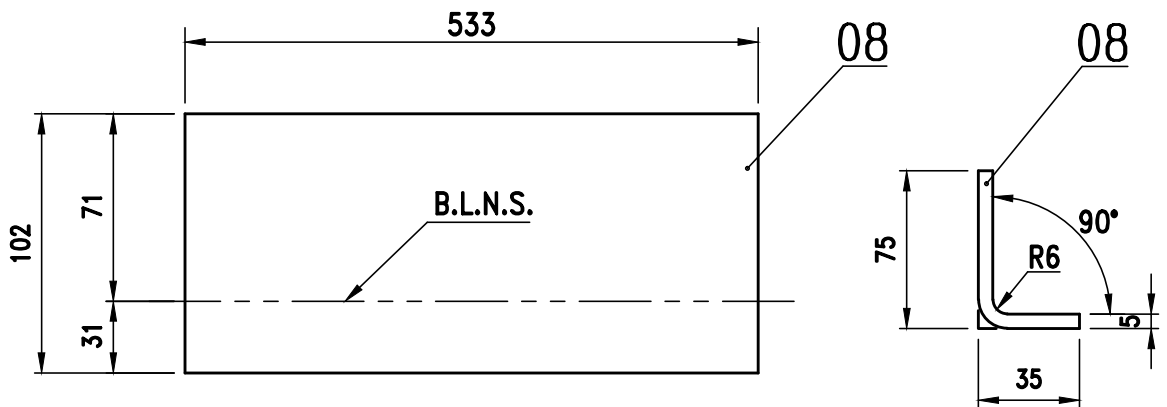


VIEW FROM TOP



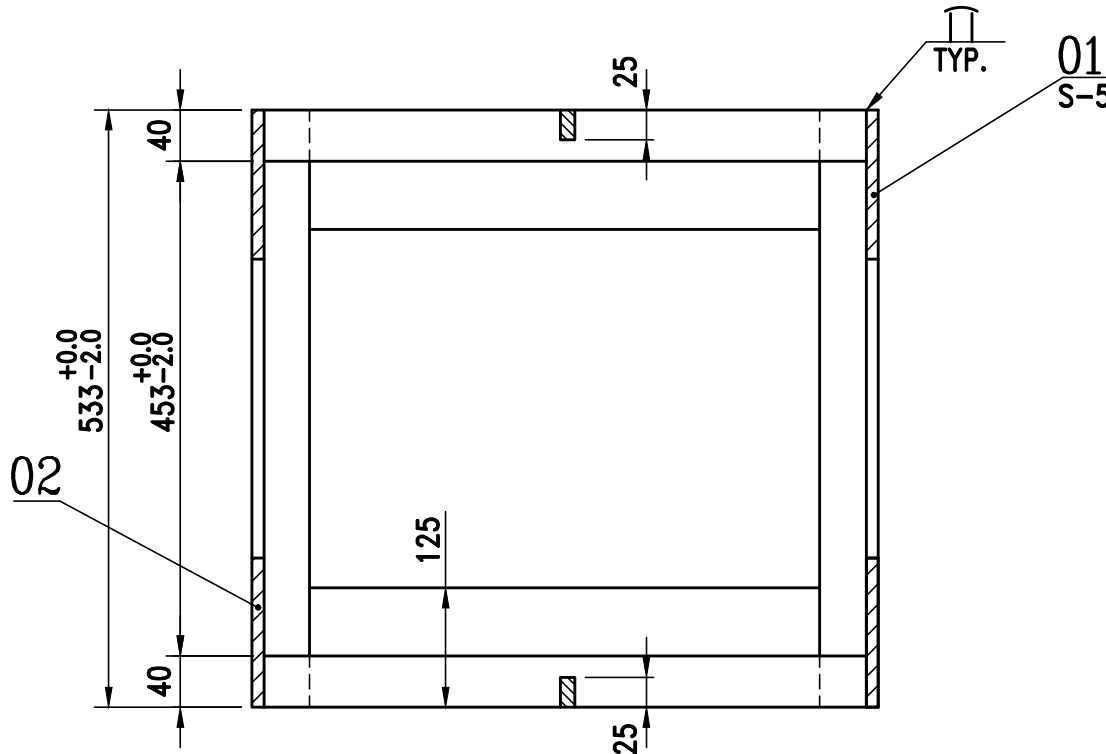
OUTSTRETCHED VIEW

FORMED VIEW



OUTSTRETCHED VIEW

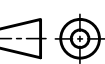
FORMED VIEW



SECTION-AA

VAR NO	ITEM NO	DESCRIPTION	CAT	DRAWING No.	ITEM NO VAR NO	MATL CODE MATL SPECN	UNIT DI	UNIT WT QTY	C.S	ZONE
12	HE CUTTING LIST SH 0.63X450 DU	4-52-025-03139		158117150450 IS 513 DD		239.400		1		
11	PL 5X125X551			AA1011808013 IS 2062 GR A		2.703		2		
10	PL 5X125X644			AA1011808013 IS 2062 GR A		3.160		2		
09	105DEG COR ANGLE PL 5X104X533			AA1011808013 IS 2062 GR A		2.176		1		
08	90 DEG COR ANGLE PL 5X102X533			AA1011808013 IS 2062 GR A		2.134		3		
07	SPIDER BAR FL 25X12;199			AA1010308505 IS 2062 GR A		0.468		2		
06	SPIDER BAR FL 25X12;185			AA1010308505 IS 2062 GR A		0.435		6		
05	HOLDING BAR FL 40X16;699			AA1010308599 IS 2062 GR A		3.510		2		
04	HOLDING BAR FL 40X16;681			AA1010308599 IS 2062 GR A		3.420		2		
03	HOLDING BAR FL 40X16;651			AA1010308599 IS 2062 GR A		3.270		2		
02	INNER END PLATE PL 5X125X568			AA1011808013 IS 2062 GR A		2.787		2		
01	OUTER END PLATE PL 5X125X740			AA1011808013 IS 2062 GR A		3.631		2		

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TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT									
 BHARAT HEAVY ELECTRICALS LTD., UNIT: BOILER AUXILIARIES PLANT. RANIPET - 632 406.				DRN CHD APPD	NAME S.RAGUNATHAN G.R.YEKATRAMAN	SIGN	DATE 02-08-00	NO.OF VAR.	
DEPT AP	GRADE OF UNTOL DIM PR QA: 500		SCALE NTS	WEIGHT (KG). 296.486	REF. TO ASSY/OLD DRG.		ITEM NO.	NO. OF ITEMS	
TITLE ASSY OF BASKET- E24.5 (HOT END)				CARD CODE U 01	DRAWING NO. 2-52-025-02465		REV 02		

REV	DATE	ALTERED A.K
02	18.07.11	CHECKED RSB
BASKET IMPROVED DESIGN INTRODUCED AND TOTAL WEIGHT WAS 293.750		

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.

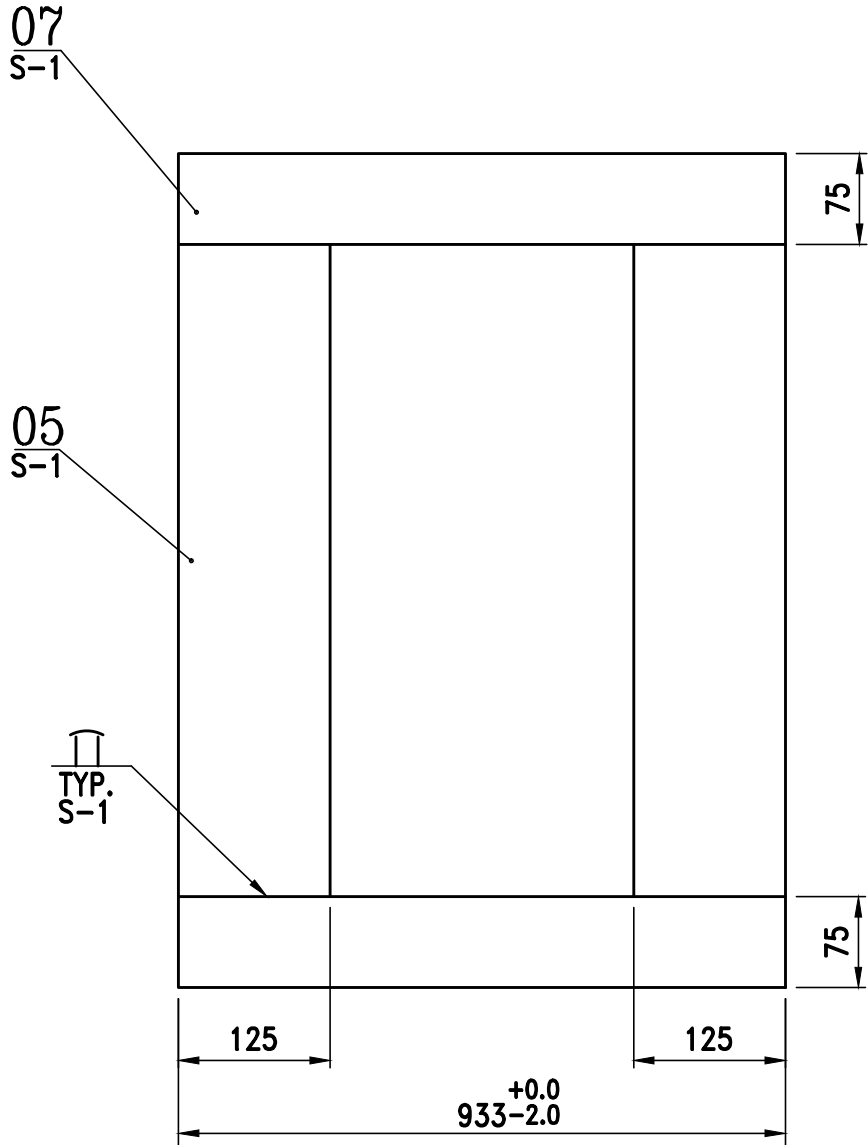
99470-S2-025-02466
DRAWING NO.

ALL DIMENSIONS ARE IN MILLIMETRES

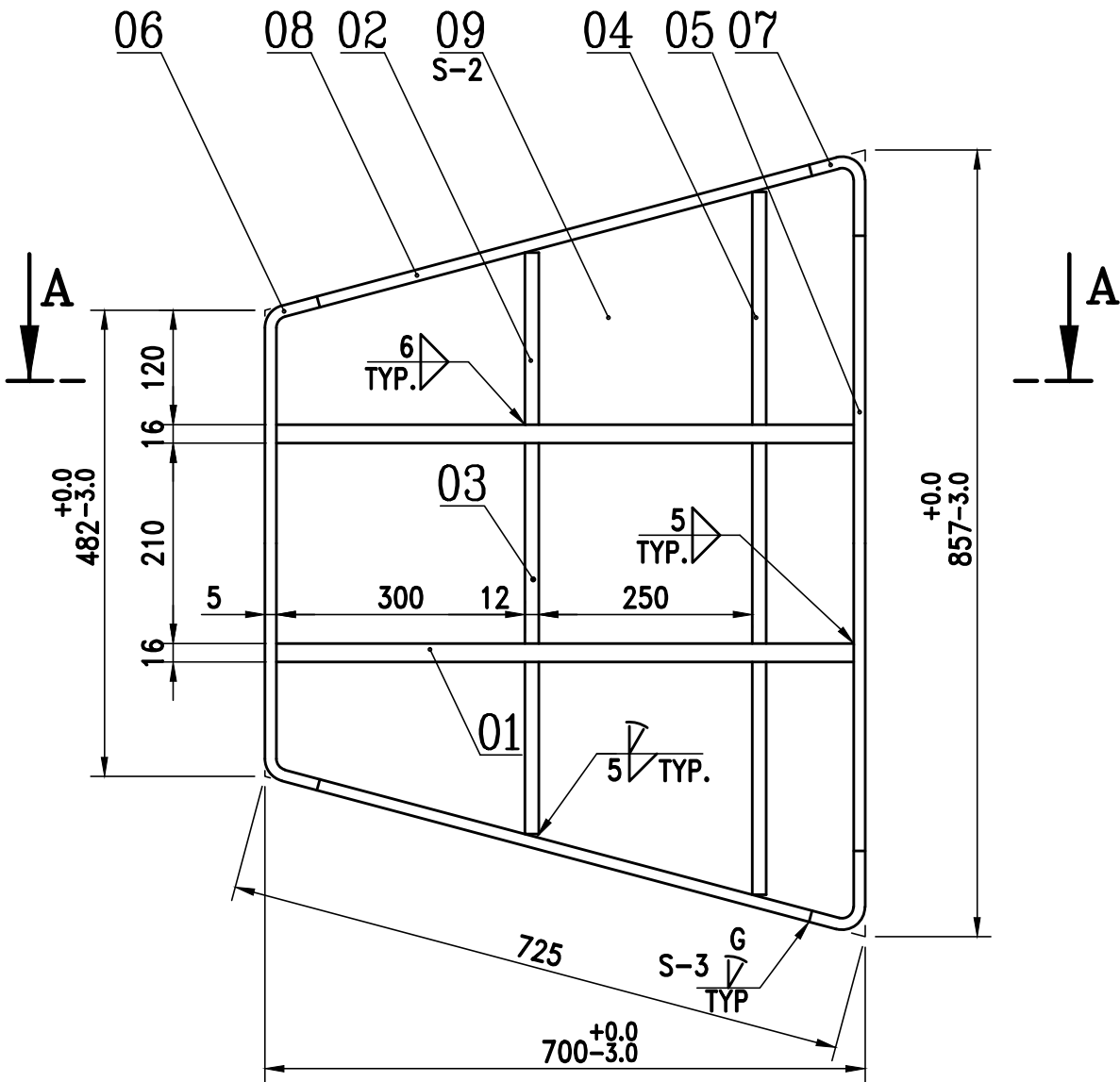
FOR PRODUCTION
REF.: PR:QA:590 FOR PAINTING
REF.: PR:QA:500 FOR UNTOL. DIMS.
REF.: APPLICABLE GMS FOR MATL CODE & SPEC

SHOP NOTES:-

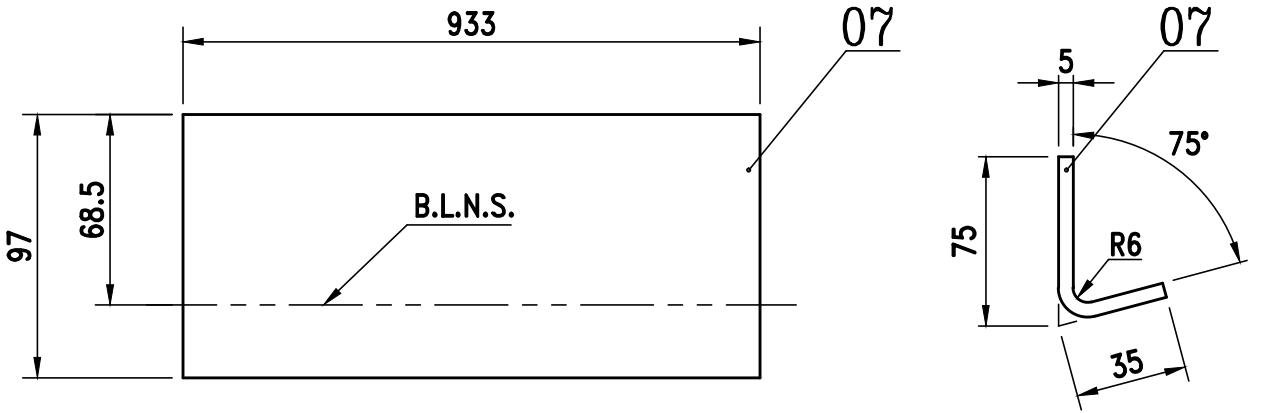
- S-1. ASSEMBLE OUTER END PLATES ITEM NO.04, AND 75° CORNER ANGLES BEFORE WELDING TO BASKET.
S-2. INSTALL ELEMENTS BEFORE WELDING OUTER END PLATE ASSY IN PLACE
S-3. PUNCH "BASKET-AB" ON THE ASSEMBLY.



VIEW FROM RIGHT

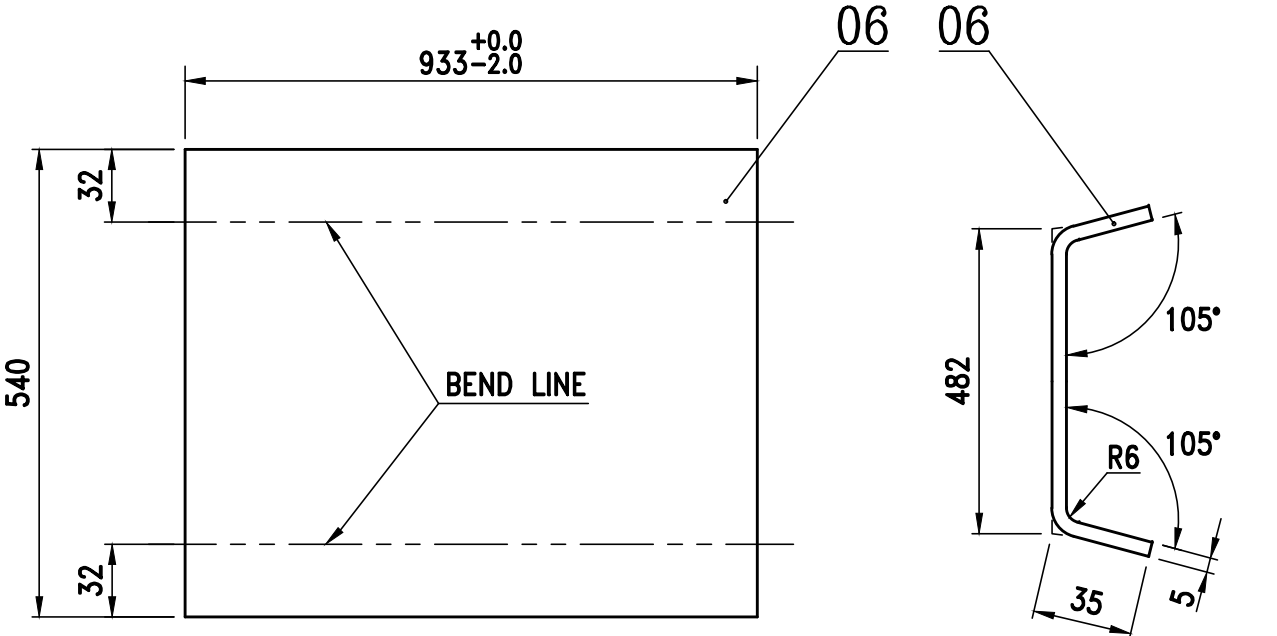


VIEW FROM TOP



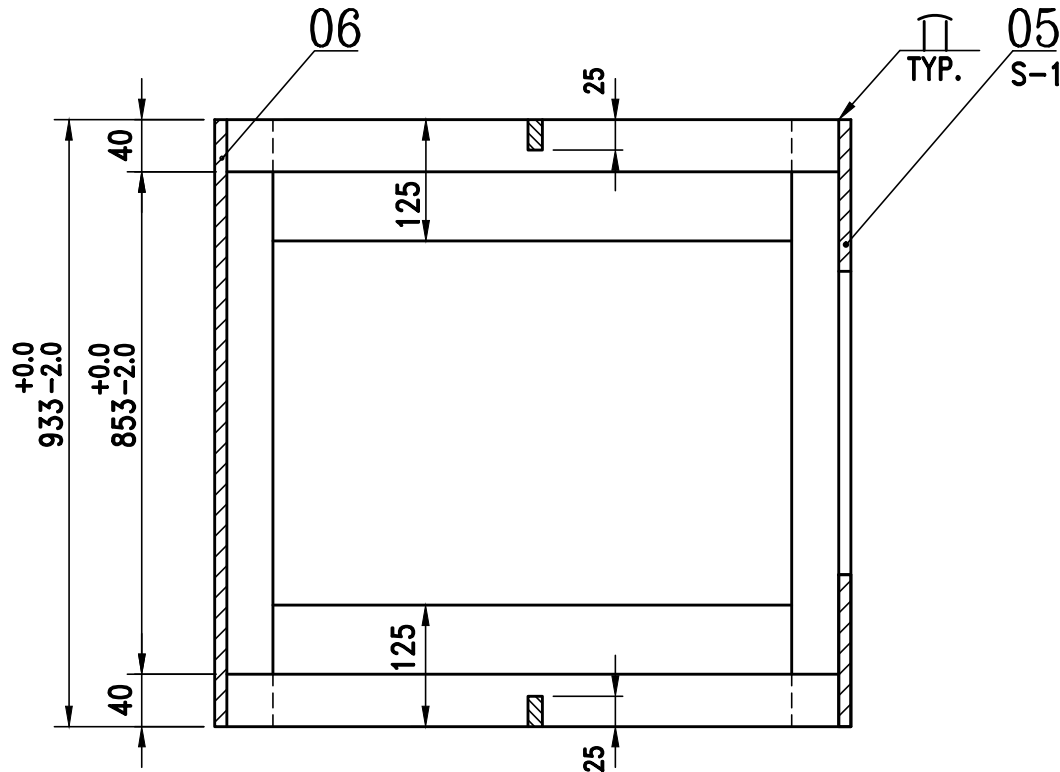
OUTSTRETCHED VIEW

FORMED VIEW



OUTSTRETCHED VIEW

FORMED VIEW



SECTION-AA

09	HE CUTTING LIST SH 0.63X850 DU	4-52-025-03140	158117150850 IS 513 DD	386.750	1		
08	PL 5X125X649		AA1011808013 IS 2062 GR A	3.184	4		
07	75 DEG COR ANGLE PL 5X97X933		AA1011808013 IS 2062 GR A	3.552	2		
06	INNER END PLATE PL 5X540X933		AA1011808013 IS 2062 GR A	19.775	1		
05	OUTER END PLATE PL 5X125X707		AA1011808013 IS 2062 GR A	3.459	2		
04	SPIDER BAR FL 25X12;267		AA1010308505 IS 2062 GR A	0.628	4		
03	SPIDER BAR FL 25X12;210		AA1010308505 IS 2062 GR A	0.495	4		
02	SPIDER BAR FL 25X12;197		AA1010308505 IS 2062 GR A	0.464	4		
01	HOLDING BAR FL 40X16;689		AA1010308599 IS 2062 GR A	3.460	4		
VAR NO	ITEM NO	DESCRIPTION	CAT	DRAWING No.	ITEM NO VAR NO	MATL CODE MATL SPECN	UNIT QTY

TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT		24.5 VI					
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.	BHARAT HEAVY ELECTRICALS LTD., UNIT: BOILER AUXILIARIES PLANT. RANIPET - 632 406.		DRN	NAME A.KUMAR	SIGN Sd..	DATE 21.06.05	NO.OF VAR.
			CHD	SR	Sd..		
			APPD	GRV	Sd..		
DEPT AP	GRADE OF UNTOL DIM PR: QA: 500	SCALE NTS	WEIGHT (KG). 453.471	REF. TO ASSY/OLD DRG.		ITEM NO.	NO. OF ITEMS
CODE 852	TITLE ASSY OF BASKET-AB		CARD CODE U 01	DRAWING NO. 2-52-025-02466		REV 02	

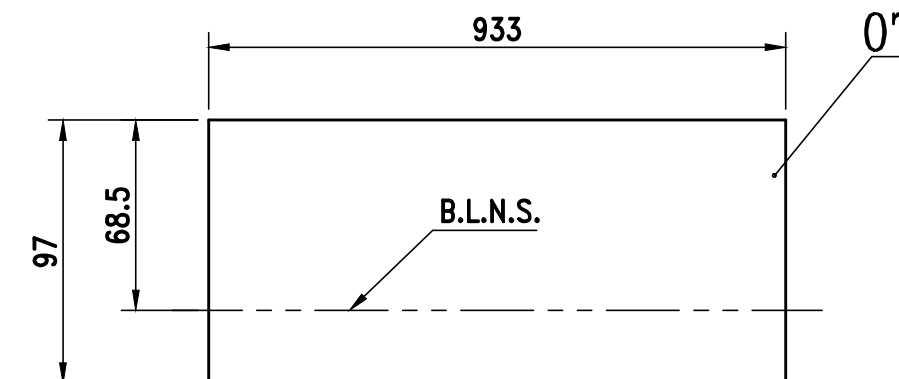
2-52-025-02467
DRAWING NO.

ALL DIMENSIONS ARE IN MILLIMETRES

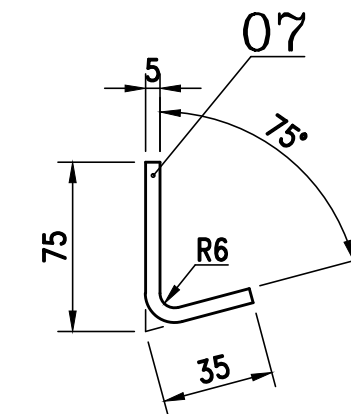
FOR PRODUCTION
REF.: PR:QA:590 FOR PAINTING
REF.: PR:QA:500 FOR UNTOL. DIMS.
REF.: APPLICABLE GMS FOR MATL CODE & SPEC

SHOP NOTES:-

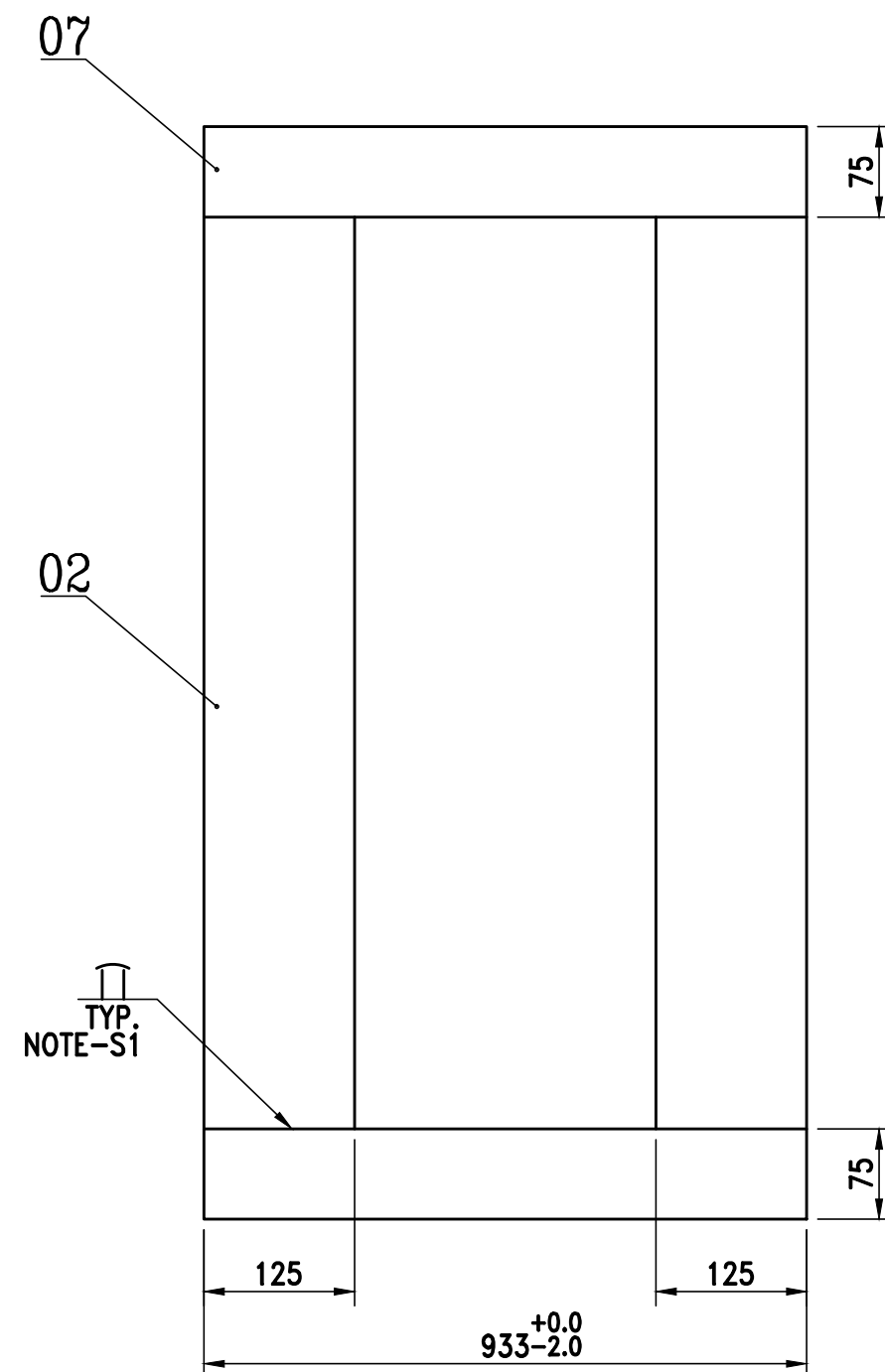
- S-1. ASSEMBLE OUTER END PLATES ITEM NO.02 AND 75° CORNER ANGLES BEFORE WELDING TO BASKET.
S-2. INSTALL ELEMENTS BEFORE WELDING OUTER END PLATE ASSY IN PLACE
S-3. ALL OUTSIDE WELDS TO BE HALF 'V' EDGE PREPARED, WELDED AND FLUSH GROUND TO ENSURE EASY INSERTION OF BASKETS IN THE ROTOR COMPARTMENTS.
S-4. PUNCH "BASKET-C" ON THE ASSEMBLY.



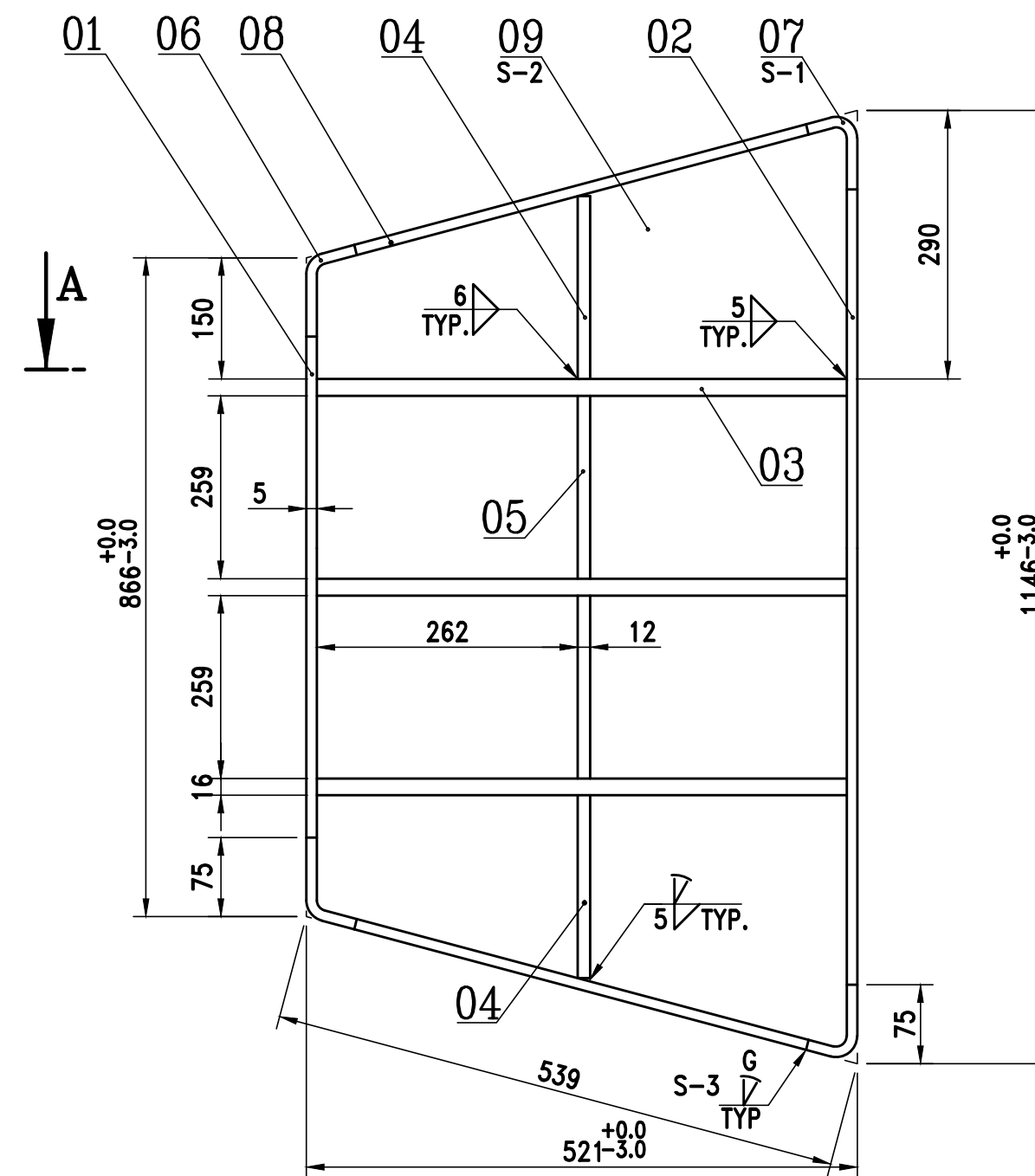
OUTSTRETCHED VIEW



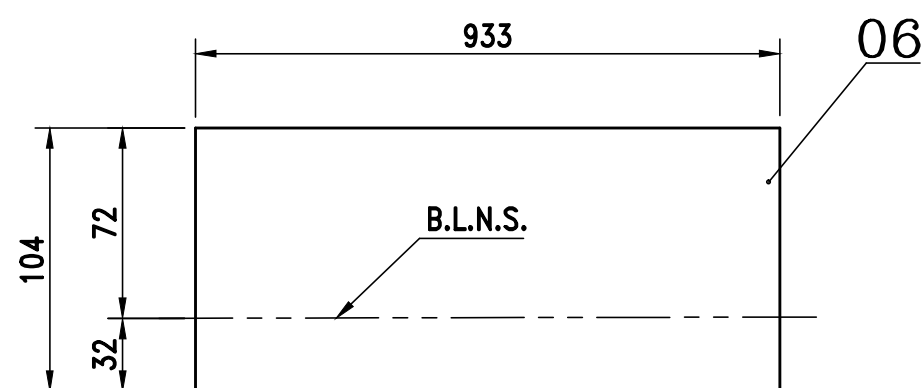
FORMED VIEW



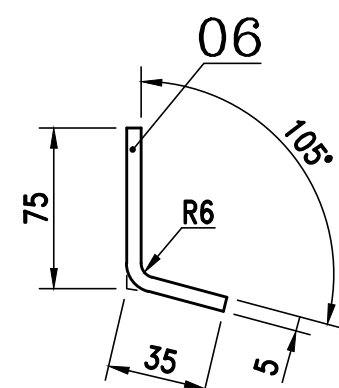
VIEW FROM RIGHT



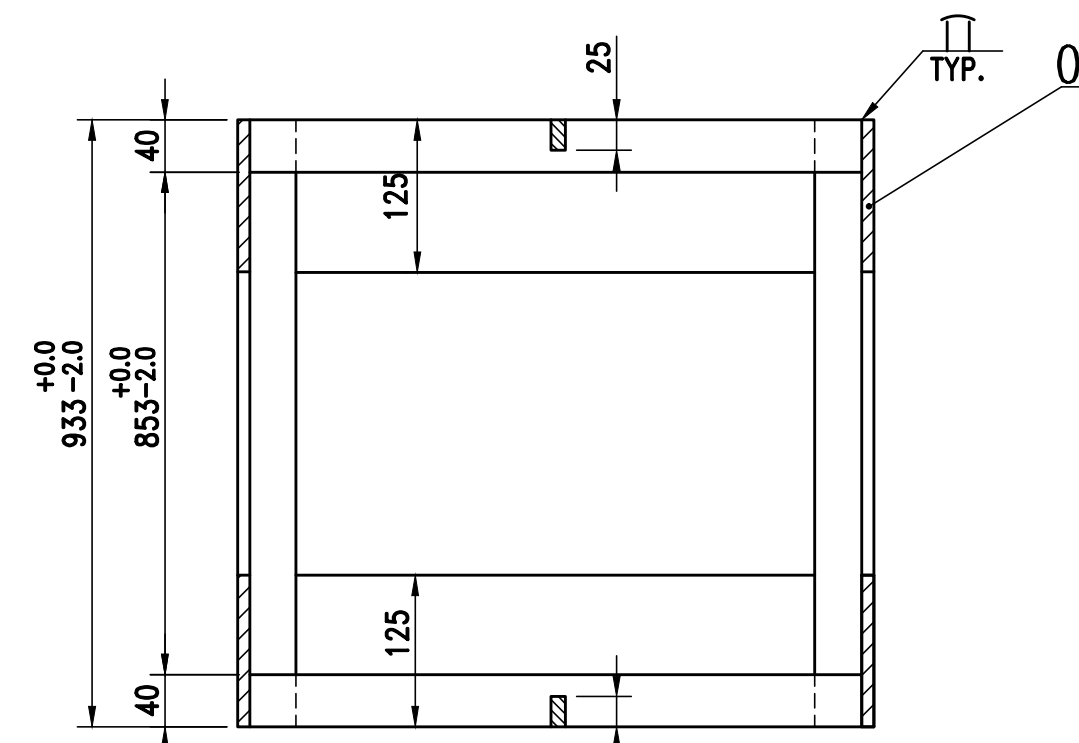
VIEW FROM TOP



OUTSTRETCHED VIEW



FORMED VIEW



SECTION-AA

	09	HE CUTTING LIST SH 0.63X850 DU		4-52-025-03141		158117150850			432.650		
						IS 513 DD			1		
	08	PL 5X125X466				AA1011808013			2.286		
						IS 2062 Gr A			4		
	07	75DEG COR ANGLE PL 5X97X933				AA1011808013			3.552		
						IS 2062 Gr A			2		
	06	105DEG COR ANGLE PL 5X104X933				AA1011808013			3.809		
						IS 2062 Gr A			2		
	05	SPIDER BAR FL 25X12;259				AA1010308505			0.610		
						IS 2062 Gr A			4		
	04	SPIDER BAR FL 25X12;216				AA1010308505			0.509		
						IS 2062 Gr A			4		
	03	HOLDING BAR FL 40X16;511				AA1010308599			2.567		
						IS 2062 Gr A			6		
	02	OUTER END PLATE PL 5X125X997				AA1011808013			4.892		
						IS 2062 Gr A			2		
	01	INNER END PLATE PL 5X125X716				AA1011808013			3.513		
						IS 2062 Gr A			2		
VAR NO	ITEM NO	DESCRIPTION	CAT	DRAWING No.	ITEM NO	MATL CODE	A/P/C	UNIT	UNIT WT	G.S	ZONE
					VAR NO	MATL SPECN	A/P/C	DI	QTY		

TYPE OF PRODUCT
OR NAME OF
CUSTOMER/PROJECT

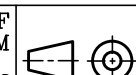


BHARAT HEAVY ELECTRICALS LTD.,
UNIT: BOILER AUXILIARIES PLANT.
RANIPET - 632 406.

DRN	NAME A.KUMAR	SIGN	DATE 21.06.05	NO. OF VAR.
CHD	SR	Sd..		
APPD	GRV	Sd..		

DEPT
AP

GRADE OF
UNTOL DIM
PR: QA: 500



SCALE
NTS

WEIGHT (KG).
493.204

REF. TO ASSY/OLD DRG.
ITEM NO.
NO. OF
ITEMS

CODE
852

TITLE
ASSY OF BASKET-C

CARD
CODE

DRAWING NO.
2-52-025-02467

REV
02

REV 02	DATE 11.06.12	ALTERED A.K CHECKED RSB
ZONE		BASKET IMPROVED DESIGN INTRODUCED AND TOTAL WEIGHT WAS 496.612

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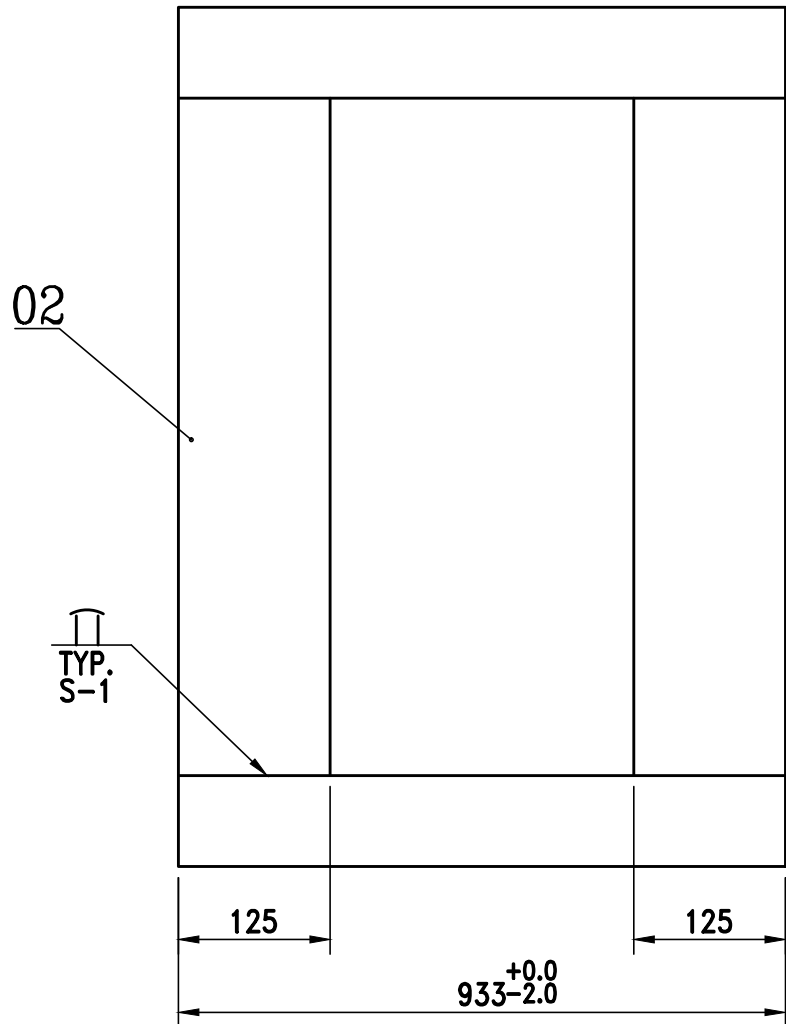
2-52-025-02468
DRAWING NO.

ALL DIMENSIONS ARE IN MILLIMETRES

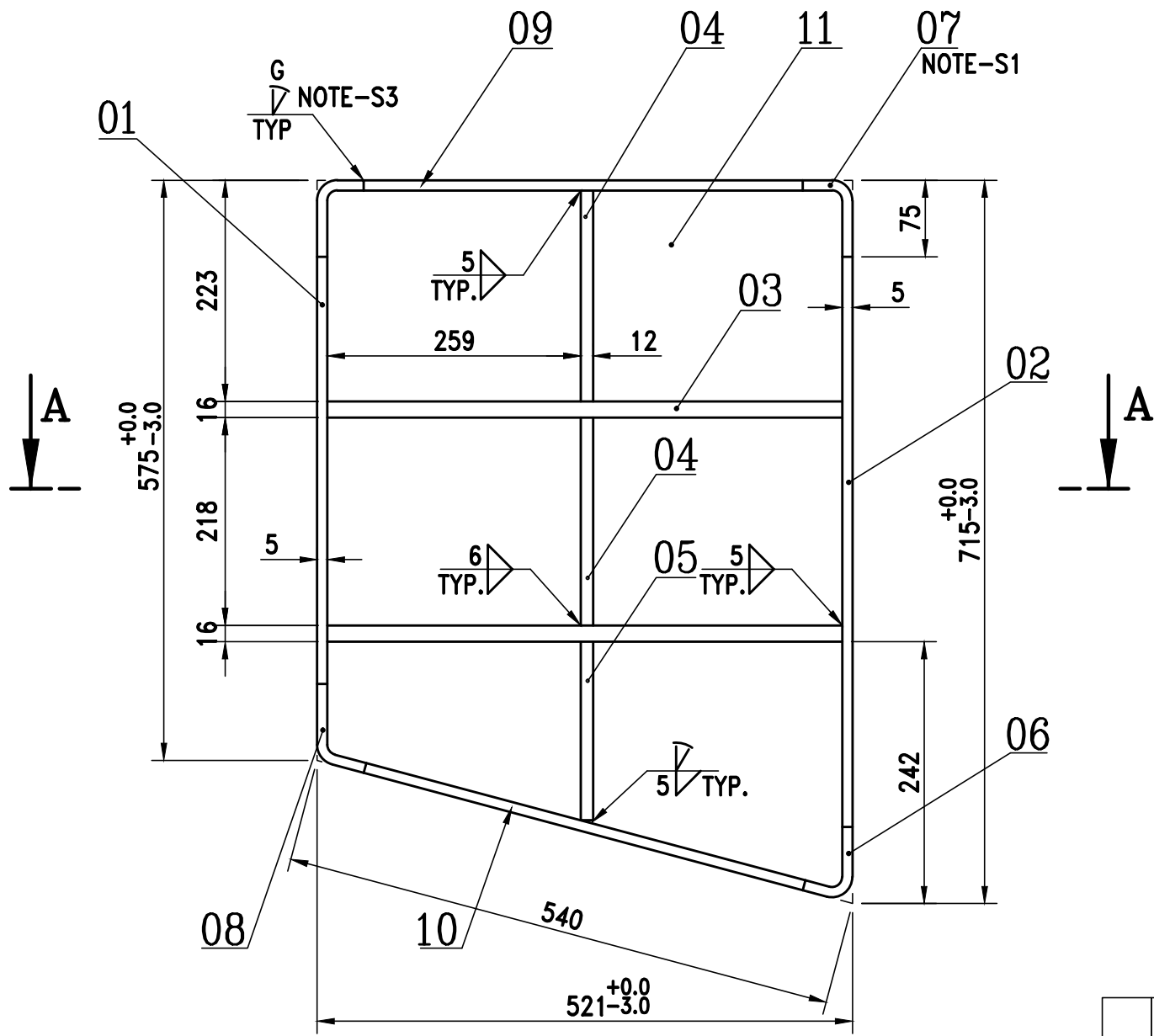
FOR PRODUCTION
REF.: PR:QA:590 FOR PAINTING
REF.: PR:QA:500 FOR UNTOL. DIMS.
REF.: APPLICABLE GMS FOR MATL CODE & SPEC

SHOP NOTES:-

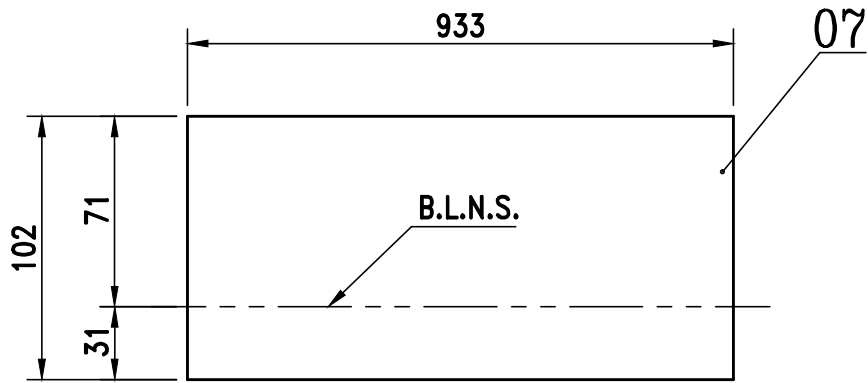
- S-1. ASSEMBLE OUTER END PLATES ITEM NO.02, 75° AND 90° CORNER ANGLES BEFORE WELDING TO BASKET.
- S-2. INSTALL ELEMENTS BEFORE WELDING OUTER END PLATE ASSY IN PLACE
- S-3. ALL OUTSIDE WELDS TO BE HALF 'V' EDGE PREPARED, WELDED AND FLUSH GROUND TO ENSURE EASY INSERTION OF BASKETS IN THE ROTOR COMPARTMENTS.
- S-4. PUNCH "BASKET-D" ON THE ASSEMBLY.



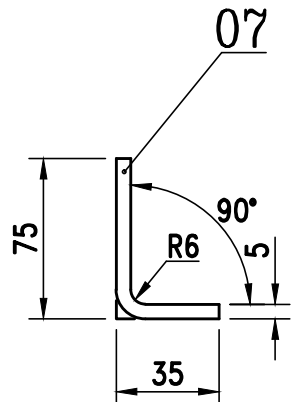
VIEW FROM RIGHT



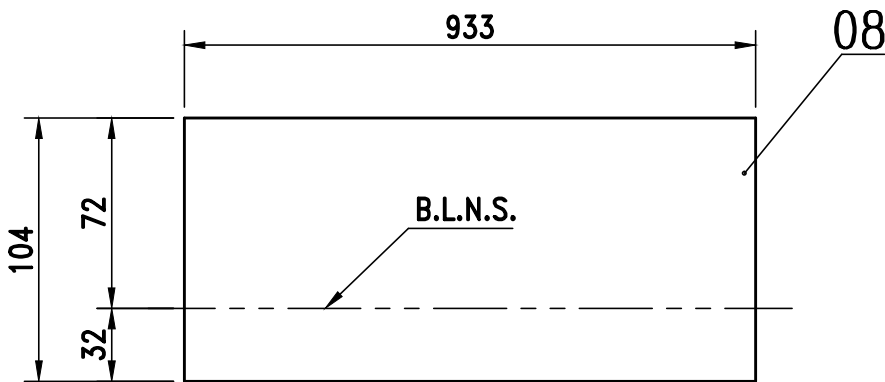
VIEW FROM TOP



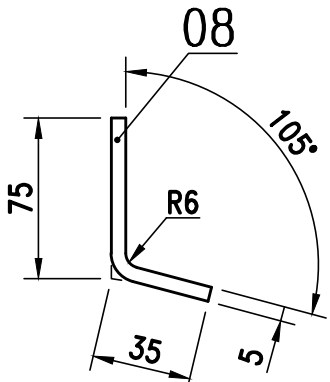
OUTSTRETCHED VIEW



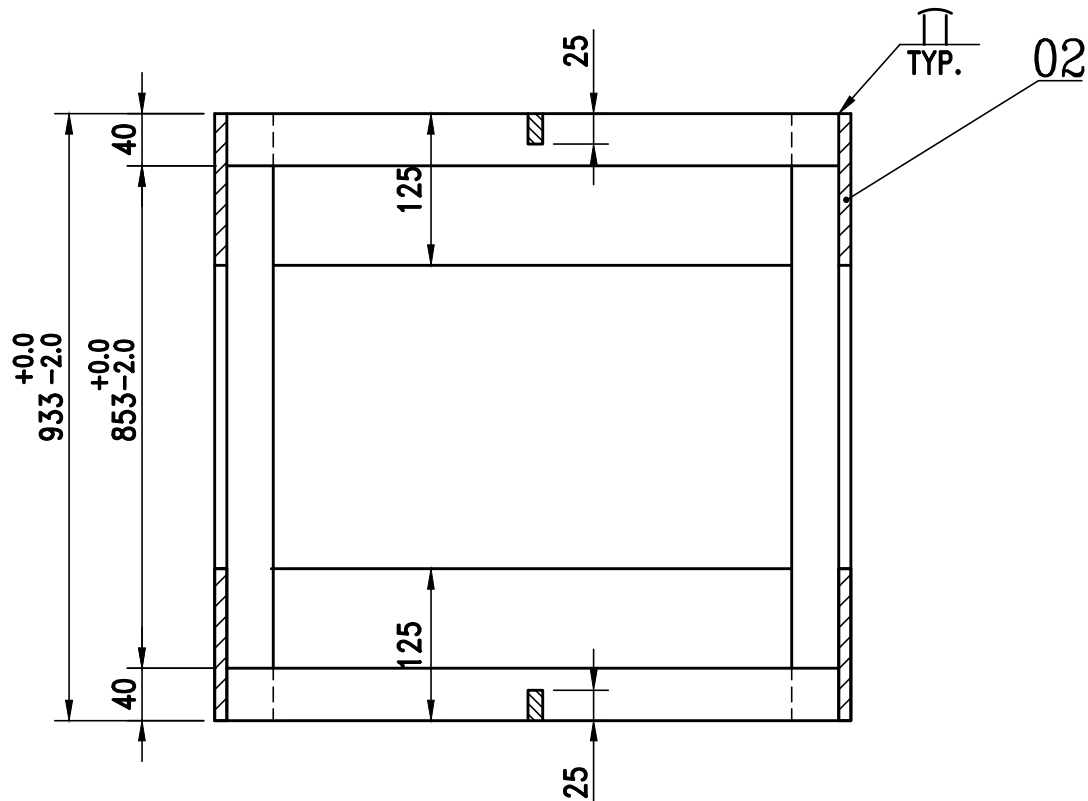
FORMED VIEW



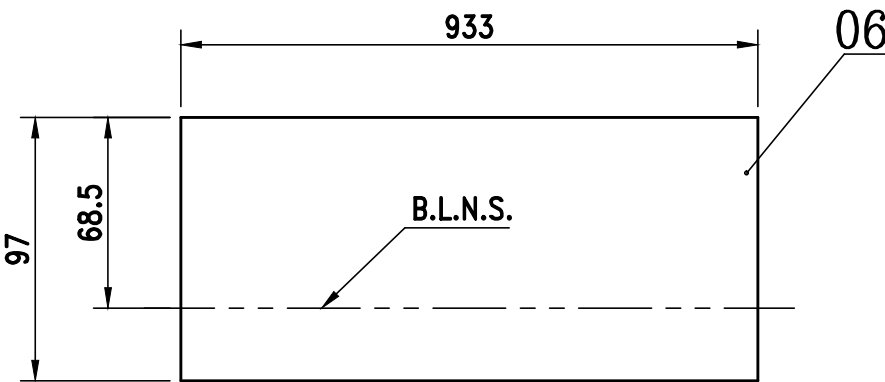
OUTSTRETCHED VIEW



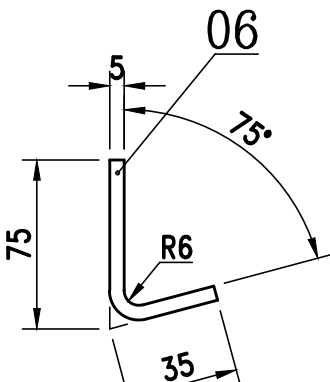
FORMED VIEW



SECTION-AA



OUTSTRETCHED VIEW



FORMED VIEW

11	HE CUTTING LIST SH 0.63X850 DU	4-52-025-03142	158117150850 IS 513 DD	276.250 1
10	PL 5X125X467		AA1011808013 IS 2062 Gr A	2.291 2
09	PL 5X125X441		AA1011808013 IS 2062 Gr A	2.164 2
08	105DEG COR ANG PL 5X104X933		AA1011808013 IS 2062 Gr A	3.809 1
07	90DEG COR ANGL PL 5X102X933		AA1011808013 IS 2062 Gr A	3.735 2
06	75DEG COR ANGLE PL 5X97X933		AA1011808013 IS 2062 Gr A	3.552 1
05	SPIDER BAR FL 25X12;168		AA1010308505 IS 2062 Gr A	0.396 2
04	SPIDER BAR FL 25X12;218		AA1010308505 IS 2062 Gr A	0.513 4
03	HOLDING BAR FL 40X16;511		AA1010308599 IS 2062 Gr A	2.567 4
02	OUTER END PLATE PL 5X125X565		AA1011808013 IS 2062 Gr A	2.878 2
01	INNER END PLATE PL 5X125X425		AA1011808013 IS 2062 Gr A	2.169 2

VAR NO	ITEM NO	DESCRIPTION	CAT	DRAWING No.	ITEM NO VAR NO	MATL CODE MATL SPECN	A/P/C DI	UNIT QTY	UNIT WT	G.S ZONE
--------	---------	-------------	-----	-------------	-------------------	-------------------------	-------------	-------------	---------	-------------

TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT									
BHARAT HEAVY ELECTRICALS LTD., UNIT: BOILER AUXILIARIES PLANT. RANIPET - 632 406.									
DEPT AP	GRADE OF UNTOL DIM PR: QA: 500	SCALE NTS	WEIGHT (KG). 323.197	NAME AK	SIGN Sd..	DATE 21.06.05	NO. OF VAR.	REF. TO ASSY/OLD DRG.	ITEM NO. NO. OF ITEMS
ASSY OF BASKET-D							CARD CODE U 01	DRAWING NO. 2-52-025-02468	REV 02

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.

REV 02	DATE 11.06.12	ALTERED A.K
ZONE	CHECKED RSB	
BASKET IMPROVED DESIGN INTRODUCED AND TOTAL WEIGHT WAS 326.275		

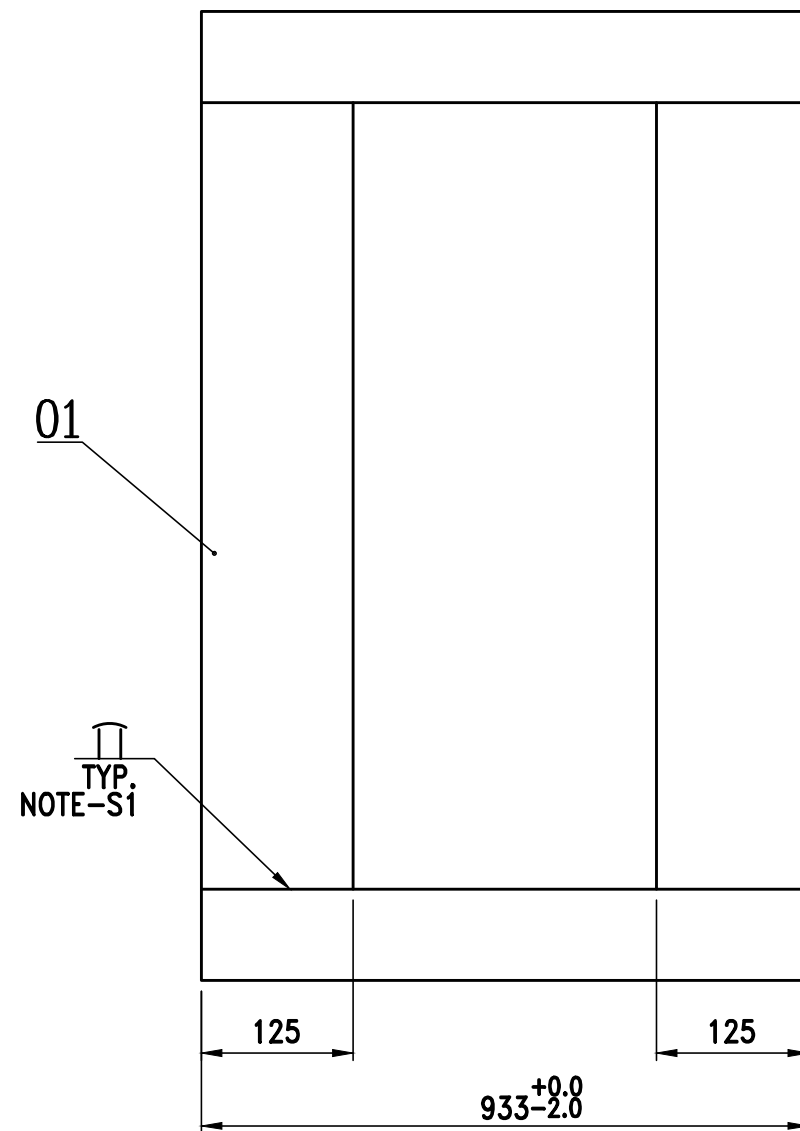
2-52-025-02469
DRAWING NO.

ALL DIMENSIONS ARE IN MILLIMETRES

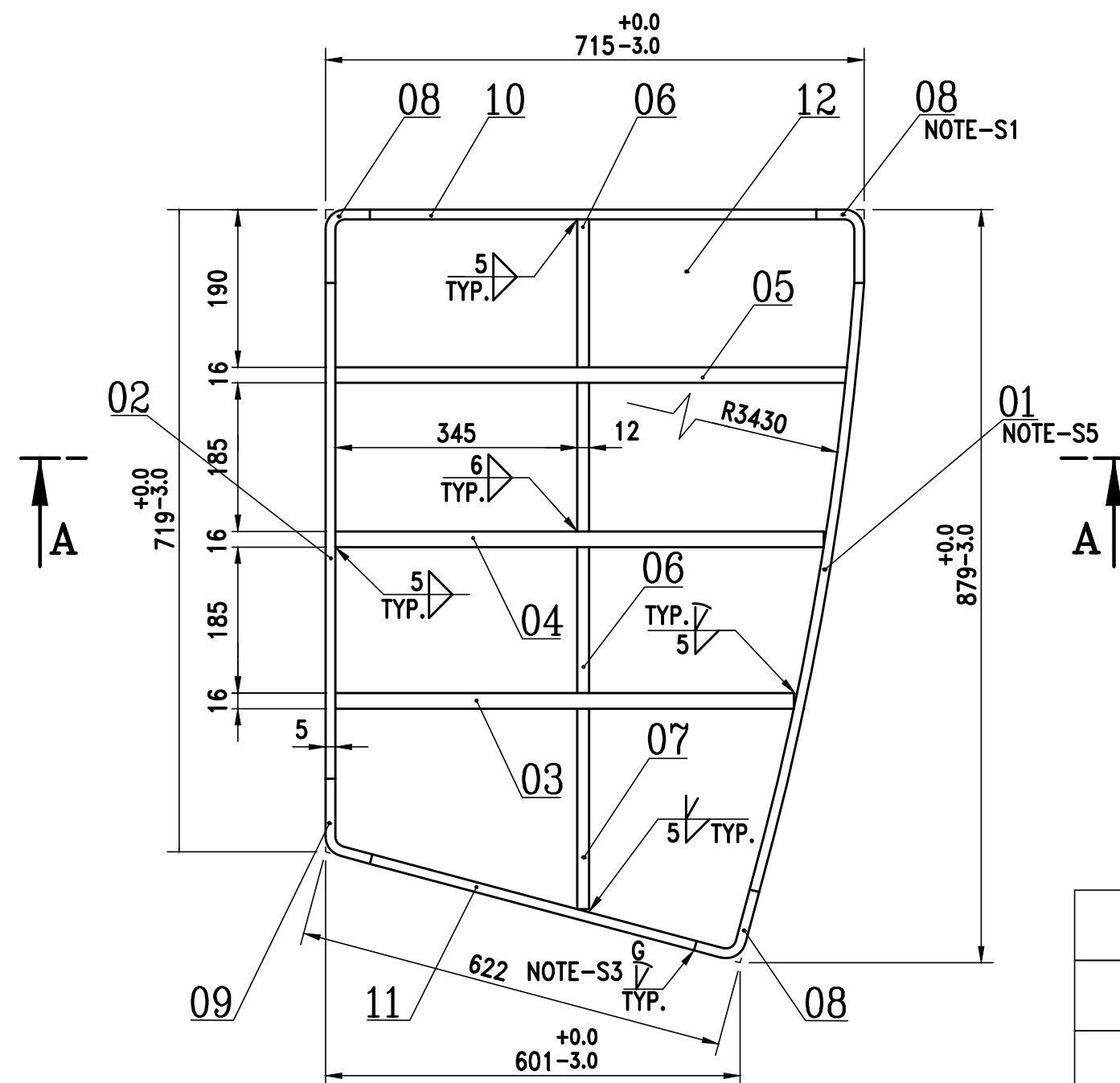
FOR PRODUCTION
REF.: PR:QA:590 FOR PAINTING
REF.: PR:QA:500 FOR UNTOL. DIMS.
REF.: APPLICABLE GMS FOR MATL CODE & SPEC

SHOP NOTES:-

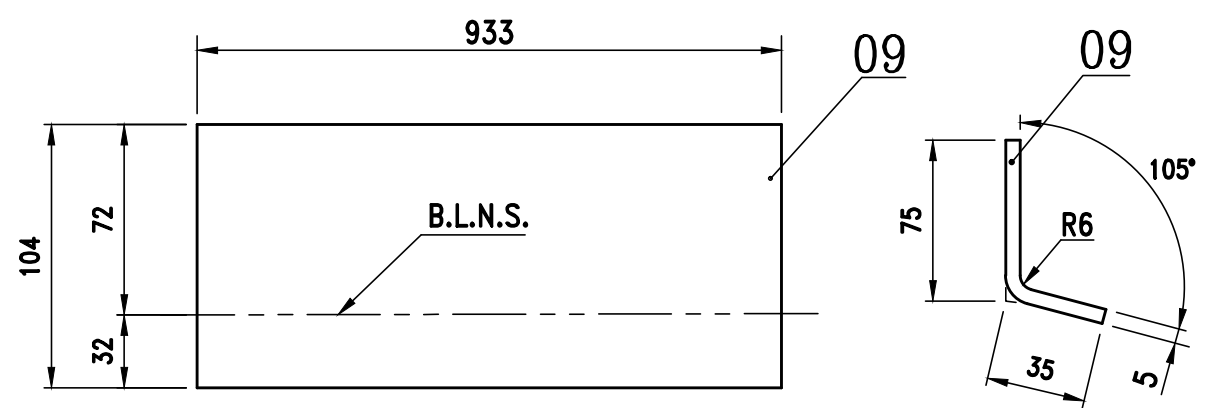
- S-1. ASSEMBLE OUTER END PLATES ITEM NO.01, AND 90° CORNER ANGLES ITEM NO.08 BEFORE WELDING TO BASKET.
S-2. INSTALL ELEMENTS BEFORE WELDING OUTER END PLATE ASSY IN PLACE
S-3. PUNCH "BASKET-E24.5" ON THE ASSEMBLY.
S-4. ROLL ITEM NO. 01 TO IR.3430.



VIEW FROM RIGHT

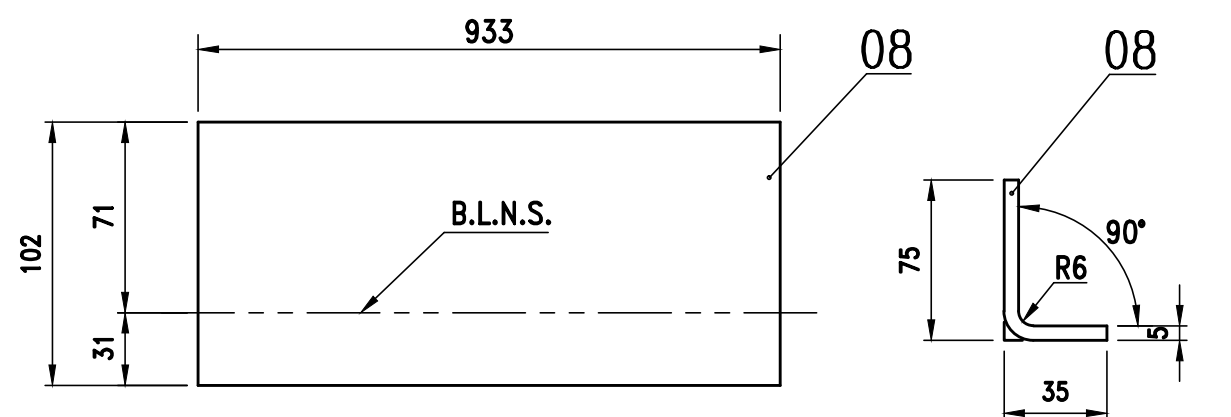


VIEW FROM TOP



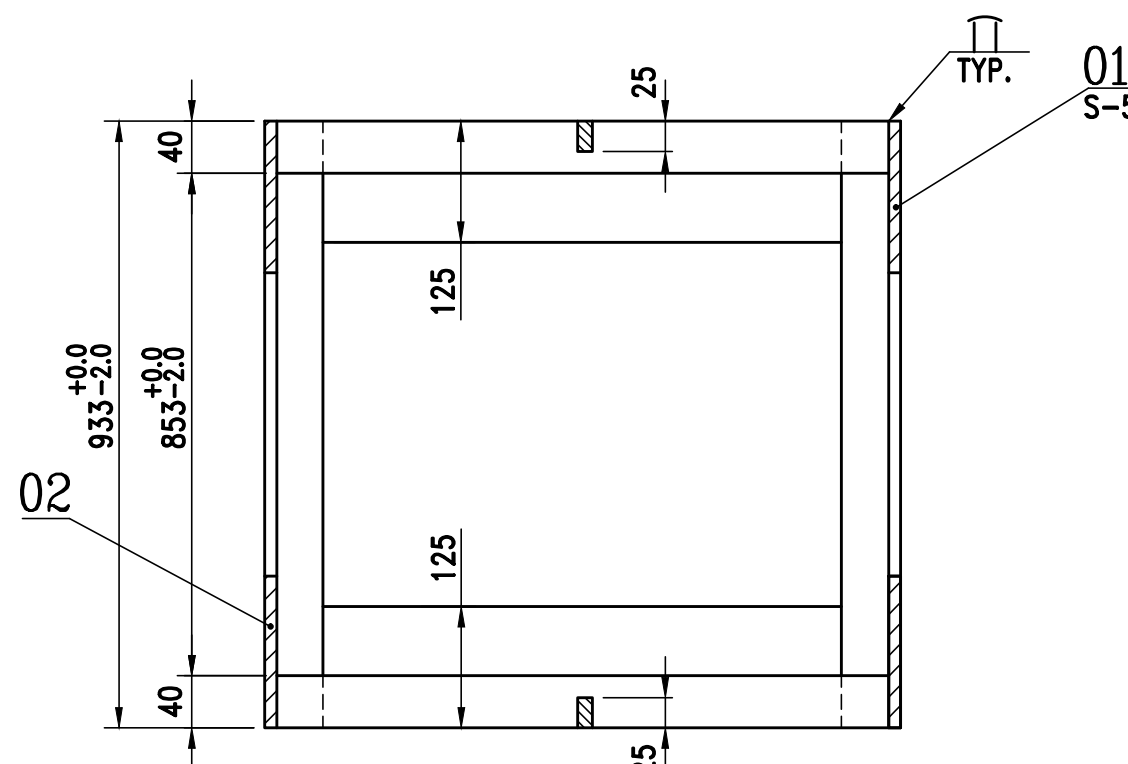
OUTSTRETCHED VIEW

FORMED VIEW



OUTSTRETCHED VIEW

FORMED VIEW



SECTION-AA

VAR NO	ITEM NO	DESCRIPTION	CAT	DRAWING No.	ITEM NO VAR NO	MATL CODE	MATL SPECN	A/P/C	UNIT DI	UNIT WT QTY	G.S	ZONE
	12	HE CUTTING LIST SH 0.63X850 DU		4-52-025-03143		158117150850 IS 513 DD				452.200 1		
	11	PL 5X125X551				AA1011808013 IS 2062 GR A				2.703 2		
	10	PL 5X125X644				AA1011808013 IS 2062 GR A				3.160 2		
	09	105DEG COR ANGLE PL 5X104X933				AA1011808013 IS 2062 GR A				3.809 1		
	08	90 DEG COR ANGLE PL 5X102X933				AA1011808013 IS 2062 GR A				3.735 3		
	07	SPIDER BAR FL 25X12;199				AA1010308505 IS 2062 GR A				0.468 2		
	06	SPIDER BAR FL 25X12;185				AA1010308505 IS 2062 GR A				0.435 6		
	05	HOLDING BAR FL 40X16;699				AA1010308599 IS 2062 GR A				3.510 2		
	04	HOLDING BAR FL 40X16;681				AA1010308599 IS 2062 GR A				3.420 2		
	03	HOLDING BAR FL 40X16;651				AA1010308599 IS 2062 GR A				3.270 2		
	02	INNER END PLATE PL 5X125X568				AA1011808013 IS 2062 GR A				2.787 2		
	01	OUTER END PLATE PL 5X125X740				AA1011808013 IS 2062 GR A				3.631 2		

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											
	BHARAT HEAVY ELECTRICALS LTD., UNIT: BOILER AUXILIARIES PLANT. RANIPET - 632 406.											
	DRN	NAME	SIGN	DATE	NO. OF							
	CHD	SR	Sd..	21.06.05	VAR.							
	APPD	GRV	Sd..									
DEPT AP	GRADE OF UNTOL DIM	SCALE	WEIGHT (KG).	REF. TO ASSY/OLD DRG.		ITEM NO.		NO. OF				
CODE 852	PR: QA: 500	NTS	515.722									
TITLE				CARD CODE	DRAWING NO.				REV			
ASSY OF BASKET- E24.5				U 01	2-52-025-02469				02			

REV	DATE	ALTERED A.K
02	11.06.12	CHECKED RSB
ZONE	BASKET IMPROVED DESIGN INTRODUCED AND TOTAL WEIGHT WAS 512.986	

Tentative Material Requirment - Enq: 667141E dt.30.03.2019

Material code	Material Description	Specification	Weight(Kg)	Total Wt(Kg)
AA1010208071	ROUND D12 mm	IS2062- Gr A	6077.952	442134.024
AA1010308505	FLAT 25 X 12 mm	IS2062- Gr A	29677.152	
AA1010308513	FLAT 25 X 16 mm	IS2062- Gr A	34890.24	
AA1010308599	FLAT 40 X 16 mm	IS2062- Gr A	101412.72	
AA1011808013	HR PL 5 mm	IS2062 - Gr B	270075.96	

GROUP DESCRIPTION	Vendor Name	TRANSPZONE	COUNTRY	Nature	Vendor Type
Fasteners	NIRMAL ENGINEERING WORKS	TRICHY	India	PERMANENT	Manufacturer
Fasteners	INDAID ENGINEERS PVT LTD.,	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	STUD CRAFT (INDIA) PVT. LTD.,	PUNE	India	PERMANENT	Manufacturer
Fasteners	ANTONY INDUSTRIES,		India	PERMANENT	Manufacturer
Fasteners	BHARAT ENGINEERING	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	BALSARA ENGINEERING PRODUCTS LTD	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	ORBIT	TRICHY	India	PERMANENT	Manufacturer
Fasteners	J.C INDUSTRIES	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	SARASWATHI METAL FAB	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	GANGAI INDUSTRIES,	PUDUKKOTTA	India	PERMANENT	Manufacturer
Fasteners	SHRI SARAVANA ENGG WORKS		India	PERMANENT	Manufacturer
Fasteners	POWER PIPING CO.	TRICHY	India	PERMANENT	Manufacturer
Fasteners	LOKHANDWALA ENGG CO	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	BHARAT ENGINEERING,	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	VEL INDIA STRUCTRUALS	RANIPET	India	PERMANENT	Manufacturer
Fasteners	KANNAPIRAN ENGINEERING INDUSTRIES	TRICHY	India	PERMANENT	Manufacturer
Fasteners	BALAMURUGAN ENGG. WORKS,	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	JMS ENGINEERING	COIMBATORE	India	PERMANENT	Manufacturer
Fasteners	VINAYAK BUSINESS PVT LTD.	CALCUTTA	India	PERMANENT	Manufacturer
Fasteners	BASIL FASTENER INDUSTRIES	BARODA	India	PERMANENT	Manufacturer
Fasteners	M A TRADE SYNDICATE	CHENNAI	India	PERMANENT	Trader
Fasteners	BALAMURUGAN ENGG. WORKS,	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	FAST TECH ENGINEERS PVT LTD.	THANE	India	PERMANENT	Manufacturer
Fasteners	J.C INDUSTRIES	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	JK FITWELL PVT LTD.	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	MEHTA TRADING COMPANY,	MUMBAI	India	PERMANENT	Manufacturer
Fasteners	SAHAS HARDWARE STORES,	CHENNAI	India	PERMANENT	Trader
Fasteners	BHARAT ENGINEERING,	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	SREE PAVITHRA INDUSTRIES,	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	SREE PAVITHRA INDUSTRIES,	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	SRI VENGATACHALAM ENGG WORKS(P)LTD		India	PERMANENT	Manufacturer
Fasteners	SAHAS HARDWARE STORES,	CHENNAI	India	PERMANENT	Trader
Fasteners	BHARAT ENGINEERING,	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	MEHTA TRADING COMPANY,	MUMBAI	India	PERMANENT	Manufacturer

Fasteners	FAST TECH ENGINEERS PVT LTD.	THANE	India	PERMANENT	Manufacturer
Fasteners	VARDHMAN INDUTRIAL FASTENERS	DELHI	India	PERMANENT	Manufacturer
Fasteners	BALAMURUGAN ENGG. WORKS,	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	JK FITWELL PVT LTD.	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	M A TRADE SYNDICATE	CHENNAI	India	PERMANENT	Trader
Fasteners	J.C INDUSTRIES	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	TRIPLEFAST MIDDLE EAST LTD		Utd.Arab Emir.	PERMANENT	Manufacturer
Fasteners	VINAYAK BUSINESS PVT LTD.	CALCUTTA	India	PERMANENT	Manufacturer
Fasteners	MOD FORGE PVT.LIMITED	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	GANGAI INDUSTRIES,	PUDUKKOTTA	India	PERMANENT	Manufacturer
Fasteners	B.N.INDUSTRIES,	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	KANNAPIRAN ENGINEERING INDUSTRIES	TRICHY	India	PERMANENT	Manufacturer
Fasteners	PERFECT TOOL & DIE MAKERS PVT LTD.	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	SREENIVASA ENGINEERING WORKS,	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	CAUVERY ENGINEERING WORKS	PUDUKKOTTA	India	PERMANENT	Manufacturer
Fasteners	LOKHANDWALA ENGG CO	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	BHARAT ENGINEERING,	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	POWER PIPING CO.	TRICHY	India	PERMANENT	Manufacturer
Fasteners	J.C INDUSTRIES	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	BALAMURUGAN ENGG. WORKS,	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	JAYASREE INDUSTRIES		India	PERMANENT	Manufacturer
Fasteners	REGIONAL ENGG. WORKS		India	PERMANENT	Manufacturer
Fasteners	FRONTIER TOOLINGS	KANPUR	India	PERMANENT	Manufacturer
Fasteners	PERFECT TOOL & DIE MAKERS PVT LTD.	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	MOD FORGE PVT.LIMITED	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	BALAMURUGAN ENGG. WORKS,	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	J.C INDUSTRIES	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	SREENIVASA ENGINEERING WORKS,	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	BHARAT ENGINEERING,	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	LOKHANDWALA ENGG CO	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	SRI VENGATACHALAM ENGG WORKS(P)LTD		India	PERMANENT	Manufacturer
Fasteners	J.C INDUSTRIES	CHENNAI	India	PERMANENT	Manufacturer

Fasteners	SREENIVASA ENGINEERING WORKS,	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	THOMSON ENGG WORKS	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	SRI VENGATACHALAM ENGG WORKS(P)LTD		India	PERMANENT	Manufacturer
Fasteners	JK FITWELL PVT LTD.	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	BHARAT ENGINEERING,	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	BALAMURUGAN ENGG. WORKS,	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	ORBIT	TRICHY	India	PERMANENT	Manufacturer
Fasteners	JAYASREE INDUSTRIES		India	PERMANENT	Manufacturer
Fasteners	TECHNO INDUSTRY	CALCUTTA	India	PERMANENT	Manufacturer
Fasteners	SPRING SUPPORTS MANUFACTURING	CALCUTTA	India	PERMANENT	Manufacturer
Fasteners	SHRI SARAVANA ENGG WORKS		India	PERMANENT	Manufacturer
Fasteners	AAA SUPPORTS PVT LTD.,	MUMBAI	India	PERMANENT	Manufacturer
Fasteners	JMS ENGINEERING	COIMBATORE	India	PERMANENT	Manufacturer
Fasteners	KANNAPIRAN ENGINEERING INDUSTRIES	TRICHY	India	PERMANENT	Manufacturer
Fasteners	JMS ENGINEERING	COIMBATORE	India	PERMANENT	Manufacturer
Fasteners	SHRI SARAVANA ENGG WORKS		India	PERMANENT	Manufacturer
Fasteners	PERFECT TOOL & DIE MAKERS PVT LTD.	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	BALAMURUGAN ENGG. WORKS,	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	BHARAT ENGINEERING,	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	KEMS FORGINGS LIMITED	BANGALORE	India	PERMANENT	Manufacturer
Fasteners	LOKHANDWALA ENGG CO	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	J.C INDUSTRIES	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	SREENIVASA ENGINEERING WORKS,	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	TECHNO INDUSTRY	CALCUTTA	India	PERMANENT	Manufacturer

Fasteners	KANNAPIRAN ENGINEERING INDUSTRIES	TRICHY	India	PERMANENT	Manufacturer
Fasteners	THILLAI ENGINEERING WORKS,	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	BUMPER INDIA PVT LTD	MUMBAI	India	PERMANENT	Manufacturer
Fasteners	VETRIVEL FORGINGS,	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	SKF INDIA LTD.	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	MOD FORGE PVT.LIMITED	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	TECHNO INDUSTRY	CALCUTTA	India	PERMANENT	Manufacturer
Fasteners	PERFECT TOOL & DIE MAKERS PVT LTD.	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	J.C INDUSTRIES	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	BALAMURUGAN ENGG. WORKS,	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	SREENIVASA ENGINEERING WORKS,	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	BHARAT ENGINEERING,	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	LOKHANDWALA ENGG CO	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	J.C INDUSTRIES	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	TECHNO INDUSTRY	CALCUTTA	India	PERMANENT	Manufacturer
Fasteners	JAYASREE INDUSTRIES		India	PERMANENT	Manufacturer
Fasteners	KANNAPIRAN ENGINEERING INDUSTRIES	TRICHY	India	PERMANENT	Manufacturer
Fasteners	BALAMURUGAN ENGG. WORKS,	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	ORBIT	TRICHY	India	PERMANENT	Manufacturer
Fasteners	SREENIVASA ENGINEERING WORKS,	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	LOKHANDWALA ENGG CO	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	BHARAT ENGINEERING,	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	GANGAI INDUSTRIES,	PUDUKKOTTA	India	PERMANENT	Manufacturer
Fasteners	PERFECT TOOL & DIE MAKERS PVT LTD.	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	SHRI SARAVANA ENGG WORKS		India	PERMANENT	Manufacturer
Fasteners	BALAMURUGAN ENGG. WORKS,	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	BHARAT ENGINEERING,	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	LOKHANDWALA ENGG CO	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	SRI VENGATACHALAM ENGG WORKS(P)LTD		India	PERMANENT	Manufacturer
Fasteners	SHRI SARAVANA ENGG WORKS		India	PERMANENT	Manufacturer
Fasteners	SREE PAVITHRA INDUSTRIES,	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	J.C INDUSTRIES	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	THOMSON ENGG WORKS	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	SREENIVASA ENGINEERING WORKS,	CHENNAI	India	PERMANENT	Manufacturer

Fasteners	BUSTLE ENGINEERING INDUSTRIES,	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	HAJI IRON &STEEL WORKS		India	PERMANENT	Manufacturer
Fasteners	VINAYAK BUSINESS PVT LTD.	CALCUTTA	India	PERMANENT	Manufacturer
Fasteners	SREE PAVITHRA INDUSTRIES,	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	LOKHANDWALA ENGG CO	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	THOMSON ENGG WORKS	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	FAST TECH ENGINEERS PVT LTD.	THANE	India	PERMANENT	Manufacturer
Fasteners	J.C INDUSTRIES	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	BALAMURUGAN ENGG. WORKS,	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	BHARAT ENGINEERING,	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	VINAYAK BUSINESS PVT LTD.	CALCUTTA	India	PERMANENT	Manufacturer
Fasteners	JK FITWELL PVT LTD.	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	SRI VENGATACHALAM ENGG WORKS(P)LTD		India	PERMANENT	Manufacturer
Fasteners	VARDHMAN INDUTRIAL FASTENERS	DELHI	India	PERMANENT	Manufacturer
Fasteners	UDEHRA FASTENERS LIMITED,	LUDHIANA	India	PERMANENT	Manufacturer
Fasteners	INDUSTRIAL ENGINEERING CORPORATION	THANE	India	PERMANENT	Manufacturer
Fasteners	JK FITWELL PVT LTD.	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	MEHTA TRADING COMPANY,	MUMBAI	India	PERMANENT	Manufacturer
Fasteners	PRESIDENT ENGG.WORKS,	MUMBAI	India	PERMANENT	Manufacturer
Fasteners	MEGA ENGINEERING PVT LTD.,	MUMBAI	India	PERMANENT	Manufacturer
Fasteners	J.J.INDUSTRIES,	MUMBAI	India	PERMANENT	Manufacturer
Fasteners	BHARAT ENGINEERING,	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	VINAYAK BUSINESS PVT LTD.	CALCUTTA	India	PERMANENT	Manufacturer
Fasteners	SREE PAVITHRA INDUSTRIES,	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	UDEHRA FASTENERS LIMITED,	LUDHIANA	India	PERMANENT	Manufacturer
Fasteners	FAST TECH ENGINEERS PVT LTD.	THANE	India	PERMANENT	Manufacturer

Fasteners	SRI VENGATACHALAM ENGG WORKS(P)LTD		India	PERMANENT	Manufacturer
Fasteners	Udehra Fasteners Limited	AMRITSAR	India	PERMANENT	Manufacturer
Fasteners	Kay Hi-Tech Engineers Pvt. Ltd.	LUDHIANA	India	PERMANENT	Manufacturer
Fasteners	DEEPAK FASTENERS LIMITED,	LUDHIANA	India	PERMANENT	Manufacturer
Fasteners	PRECISION AUTO ENGINEERS	LUDHIANA	India	PERMANENT	Manufacturer
Fasteners	New Star Industries	AMRITSAR	India	PERMANENT	Manufacturer
Fasteners	NEXO INDUSTRIES (PVT.) LTD.	LUDHIANA	India	PERMANENT	Manufacturer
Fasteners	NEXO INDUSTRIES (PVT.) LTD.	LUDHIANA	India	PERMANENT	Manufacturer
Fasteners	SANVIR INDUSTRIES	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	Udehra Mechanical Works	AMRITSAR	India	PERMANENT	Manufacturer
Fasteners	PRECISION AUTO ENGINEERS	LUDHIANA	India	PERMANENT	Manufacturer
Fasteners	HARYANA FASTENERS	LUDHIANA	India	PERMANENT	Manufacturer
Fasteners	Kay Hi-Tech Engineers Pvt. Ltd.	LUDHIANA	India	PERMANENT	Manufacturer
Fasteners	Udehra Fasteners Limited	AMRITSAR	India	PERMANENT	Manufacturer
Fasteners	New Star Industries	AMRITSAR	India	PERMANENT	Manufacturer
Fasteners	HARYANA FASTENERS	LUDHIANA	India	PERMANENT	Manufacturer
Fasteners	Kay Hi-Tech Engineers Pvt. Ltd.	LUDHIANA	India	PERMANENT	Manufacturer
Fasteners	PRESIDENT ENGG.WORKS,	MUMBAI	India	PERMANENT	Manufacturer
Fasteners	PRECISION AUTO ENGINEERS	LUDHIANA	India	PERMANENT	Manufacturer
Fasteners	Udehra Mechanical Works	AMRITSAR	India	PERMANENT	Manufacturer
Fasteners	NEXO INDUSTRIES (PVT.) LTD.	LUDHIANA	India	PERMANENT	Manufacturer
Fasteners	KAPURTHALA INDUSTRIAL CORPORATION	AMRITSAR	India	PERMANENT	Manufacturer
Fasteners	New Star Industries	AMRITSAR	India	PERMANENT	Manufacturer
Fasteners	PRECISION AUTO ENGINEERS	LUDHIANA	India	PERMANENT	Manufacturer
Fasteners	Udehra Mechanical Works	AMRITSAR	India	PERMANENT	Manufacturer
Fasteners	Udehra Fasteners Limited	AMRITSAR	India	PERMANENT	Manufacturer
Fasteners	HARYANA FASTENERS	LUDHIANA	India	PERMANENT	Manufacturer
Fasteners	Pankaj International	AMRITSAR	India	PERMANENT	Manufacturer
Fasteners	VARDHMAN INDUTRIAL FASTENERS	DELHI	India	TRIAL	Manufacturer

Fasteners	RBM INDUSTRIES	AMRITSAR	India	TRIAL	Manufacturer
Fasteners	Kay Hi-Tech Engineers Pvt. Ltd.	LUDHIANA	India	PERMANENT	Manufacturer
Fasteners	S R Forgings	AMRITSAR	India	Development	Manufacturer
Fasteners	MORNING STAR INDUSTRIES.,	LUDHIANA	India	PERMANENT	Manufacturer
Fasteners	PRESIDENT ENGG.WORKS,	MUMBAI	India	PERMANENT	Manufacturer
Fasteners	SANVIR INDUSTRIES	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	New Star Industries	AMRITSAR	India	PERMANENT	Manufacturer
Fasteners	Souvenir International	AMRITSAR	India	PERMANENT	Manufacturer
Fasteners	NEXO INDUSTRIES (PVT.) LTD.	LUDHIANA	India	PERMANENT	Manufacturer
Fasteners	BALAMURUGAN ENGG. WORKS,	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	PRECISION AUTO ENGINEERS	LUDHIANA	India	PERMANENT	Manufacturer
Fasteners	Kay Hi-Tech Engineers Pvt. Ltd.	LUDHIANA	India	PERMANENT	Manufacturer
Fasteners	M/s Hazur Singh & Sons	AMRITSAR	India	PERMANENT	Trader
Fasteners	SAHAS HARDWARE STORES,	CHENNAI	India	PERMANENT	Trader
Fasteners	SAHAS HARDWARE STORES,	CHENNAI	India	PERMANENT	Trader
Fasteners	BALAMURUGAN ENGG. WORKS,	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	PRESIDENT ENGG.WORKS,	MUMBAI	India	PERMANENT	Manufacturer
Fasteners	PYONIER POLY CRAFTS	MADURAI	India	PERMANENT	Manufacturer
Fasteners	PRECISION AUTO ENGINEERS	LUDHIANA	India	PERMANENT	Manufacturer
Fasteners	Kay Hi-Tech Engineers Pvt. Ltd.	LUDHIANA	India	PERMANENT	Manufacturer
Fasteners	New Star Industries	AMRITSAR	India	PERMANENT	Manufacturer
Fasteners	THILLAI ENGINEERING WORKS,	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	UNITY FORGE PRIVATE LIMITED	MARAIMLNGR	India	PERMANENT	Manufacturer
Fasteners	VETRIVEL FORGINGS,	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	SREE PAVITHRA INDUSTRIES,	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	MOD FORGE PVT.LIMITED	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	HARIHAR ALLOYS (P) LTD.	TRICHY	India	PERMANENT	Manufacturer
Fasteners	CHENNAI FORGE PRODUCTS PVT.LTD.,	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	VARSHA TECHNOLOGY	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	KEMS FORGINGS LIMITED	BANGALORE	India	PERMANENT	Manufacturer
Fasteners	K.C.S ENGINEERING WORKS	BHOPAL	India	PERMANENT	Manufacturer
Fasteners	LAKSHMI PRECISION SCREWS LTD.,	ROHTAK	India	PERMANENT	Manufacturer
Fasteners	PIONEER NUTS AND BOLTS PVT LTD	LUDHIANA	India	PERMANENT	Manufacturer
Fasteners	SUNDRAM FASTENERS LIMITED,	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	FORTUNE FASTENERS	ROHTAK	India	PERMANENT	Manufacturer
Fasteners	SAVETA ENGINEERING CO PVT LTD	SANGLI	India	PERMANENT	Manufacturer

Fasteners	Udehra Mechanical Works	AMRITSAR	India	PERMANENT	Manufacturer
Fasteners	K.C.S ENGINEERING WORKS	BHOPAL	India	PERMANENT	Manufacturer
Fasteners	INDUSTRIAL ENGINEERING CORPORATION	THANE	India	PERMANENT	Manufacturer
Fasteners	ASP PRIVATE LIMITED	CALCUTTA	India	PERMANENT	Manufacturer
Fasteners	DEEPAK FASTENERS LIMITED,	LUDHIANA	India	PERMANENT	Manufacturer
Fasteners	SANGAM FASTENERS PVT. LTD.,	HUBLI	India	PERMANENT	Manufacturer
Fasteners	SANGAM FASTENERS PVT. LTD.,	HUBLI	India	PERMANENT	Manufacturer
Fasteners	MEGA ENGINEERING PVT LTD.,	MUMBAI	India	PERMANENT	Manufacturer
Fasteners	Udehra Mechanical Works	AMRITSAR	India	PERMANENT	Manufacturer
Fasteners	PIONEER NUTS AND BOLTS PVT LTD	LUDHIANA	India	PERMANENT	Manufacturer
Fasteners	MEENA FASTENERS (P) LTD.,	TRICHY	India	PERMANENT	Manufacturer
Fasteners	K.C.S ENGINEERING WORKS	BHOPAL	India	PERMANENT	Manufacturer
Fasteners	LAKSHMI PRECISION SCREWS LTD.,	ROHTAK	India	PERMANENT	Manufacturer
Fasteners	PRESIDENT ENGG.WORKS,	MUMBAI	India	PERMANENT	Manufacturer
Fasteners	J.J.INDUSTRIES,	MUMBAI	India	PERMANENT	Manufacturer
Fasteners	INDUSTRIAL ENGINEERING CORPORATION	THANE	India	PERMANENT	Manufacturer
Fasteners	MEHTA TRADING COMPANY,	MUMBAI	India	PERMANENT	Trader
Fasteners	PANKAJ INTERNATIONAL,	LUDHIANA	India	PERMANENT	Manufacturer
Fasteners	ASP PRIVATE LIMITED	CALCUTTA	India	PERMANENT	Manufacturer
Fasteners	DEEPAK FASTENERS LIMITED,	LUDHIANA	India	PERMANENT	Manufacturer
Fasteners	K.C.S ENGINEERING WORKS	BHOPAL	India	PERMANENT	Manufacturer
Fasteners	KANNAPIRAN ENGINEERING INDUSTRIES	TRICHY	India	PERMANENT	Manufacturer
Fasteners	PIPE HANGERS AND SUPPORTS PVT. LTD,	PUDUKKOTTA	India	PERMANENT	Manufacturer
Fasteners	S&G ENGINEERS (P) LTD	FARIDABAD	India	PERMANENT	Manufacturer
Fasteners	PRIYAA BOILERS (P) LIMITED		India	PERMANENT	Manufacturer
Fasteners	VETRIVEL FORGINGS,	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	SEAM INDUSTRIES LIMITED,	NAGPUR	India	PERMANENT	Manufacturer

Fasteners	JMS ENGINEERING	COIMBATORE	India	PERMANENT	Manufacturer
Fasteners	SPRING SUPPORTS MANUFACTURING	CALCUTTA	India	PERMANENT	Manufacturer
Fasteners	AAA SUPPORTS PVT LTD.,	MUMBAI	India	PERMANENT	Manufacturer
Fasteners	TECHNO INDUSTRY	CALCUTTA	India	PERMANENT	Manufacturer
Fasteners	SHRI SARAVANA ENGG WORKS		India	PERMANENT	Manufacturer
Fasteners	UNITECH MACHINES LTD.,	SHAHARNPUR	India	PERMANENT	Manufacturer
Fasteners	PIONEER ENGG INDS		India	PERMANENT	Manufacturer
Fasteners	K. S. PIPE FITTINGS PVT.LTD	FARIDABAD	India	PERMANENT	Manufacturer
Fasteners	ASIAN INDUSTRIAL VALVES AND INSTRUM	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	PERFECT TOOL & DIE MAKERS PVT LTD.	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	TECHNO INDUSTRY	CALCUTTA	India	PERMANENT	Manufacturer
Fasteners	S.A.I.LUBE OIL SOLUTIONS,	CHENNAI	India	PERMANENT	Manufacturer
Fasteners	JMS ENGINEERING	COIMBATORE	India	PERMANENT	Manufacturer
Fasteners	SHRI SARAVANA ENGG WORKS		India	PERMANENT	Manufacturer
Packing Materials	WOODSPOT	JULLUNDAR	India	PERMANENT	Manufacturer
Packing Materials	M.R.ENGINEERING WORKS	SAHARANPUR	India	PERMANENT	Manufacturer
Packing Materials	Onkar Saw Mills	AMRITSAR	India	PERMANENT	Manufacturer
Packing Materials	Sewak Saw Mills	AMRITSAR	India	PERMANENT	Manufacturer
Packing Materials	Ravi Timber Traders	AMRITSAR	India	PERMANENT	Manufacturer
Packing Materials	Vision Trade solutionsPvt. Ltd.	AMRITSAR	India	PERMANENT	Manufacturer
Packing Materials	NEFAB INDIA PRIVATE LIMITED	GURGAON	India	PERMANENT	Manufacturer

Paints & Thinners	Rely Paints Pvt. Ltd.	AMRITSAR	India	PERMANENT	Manufacturer
Paints & Thinners	ARCOY INDUSTRIES (INDIA) PRIVATE LI	AMRITSAR	India	PERMANENT	Manufacturer
Paints & Thinners	AKZO NOBEL INDIA LTD.	BANGALORE	India	PERMANENT	Manufacturer
Paints & Thinners	Shalimar Paints Ltd.	AMRITSAR	India	PERMANENT	Manufacturer
Paints & Thinners	Kansai Nerolac Paints Ltd	CHANDIGARH	India	PERMANENT	Manufacturer
Paints & Thinners	Marigold Paints Private Limited	AHMEDABAD	India	PERMANENT	Manufacturer
Paints & Thinners	STAR PAINT & OIL INDUSTRIES	MUMBAI	India	PERMANENT	Manufacturer
Paints & Thinners	TITAN PAINTS & CHEMICALS LTD	COIMBATORE	India	PERMANENT	Manufacturer
Paints & Thinners	PASU MEENA PAINTS INDUSTRIES	TIRUPUVNAM	India	PERMANENT	Manufacturer
Paints & Thinners	WESTERN INDIA PAINT& COLOUR CO. (P)	CHENNAI	India	PERMANENT	Manufacturer
Paints & Thinners	CHEMECOAT PAINTS,	TRICHY	India	PERMANENT	Manufacturer
Paints & Thinners	SRI MEENAAKSHI PAINT INDUSTRIES	PUDUKKOTTA	India	PERMANENT	Manufacturer
Paints & Thinners	GRAUER & WEIL (INDIA) LTD.,	CHENNAI	India	PERMANENT	Manufacturer
Paints & Thinners	SUNDARAM PAINTS PVT LTD	THANJAVUR	India	PERMANENT	Manufacturer
Paints & Thinners	SHALIMAR PAINTS LTD.	CHENNAI	India	PERMANENT	Manufacturer
Paints & Thinners	NOVAA PAINTS	TRICHY	India	PERMANENT	Manufacturer
Paints & Thinners	KORROCOAT POLYMERS PVT LTD	PUNE	India	PERMANENT	Manufacturer
Paints & Thinners	HARLEQUIN PAINTS PVT LTD	KHOPOLI	India	PERMANENT	Manufacturer
Paints & Thinners	SHALIMAR PAINTS LTD.	CHENNAI	India	PERMANENT	Manufacturer

Paints & Thinners	HARLEQUIN PAINTS PVT LTD	KHOPOLI	India	PERMANENT	Manufacturer
Paints & Thinners	JOTUN INDIA PVT LTD	CHENNAI	India	PERMANENT	Manufacturer
Paints & Thinners	TITAN PAINTS & CHEMICALS LTD	COIMBATORE	India	PERMANENT	Manufacturer
Paints & Thinners	KORROCOAT POLYMERS PVT LTD	PUNE	India	PERMANENT	Manufacturer
Paints & Thinners	CARBOLINE INDIA PRIVATE LTD	CHENNAI	India	PERMANENT	Manufacturer
Paints & Thinners	POWER LIGHT PAINTS	TRICHY	India	PERMANENT	Manufacturer
Paints & Thinners	WESTERN INDIA PAINT& COLOUR CO. (P)	CHENNAI	India	PERMANENT	Manufacturer
Paints & Thinners	STAR PAINT & OIL INDUSTRIES	MUMBAI	India	PERMANENT	Manufacturer
Paints & Thinners	BERGER PAINTS INDIA LTD.,	CHENNAI	India	PERMANENT	Manufacturer
Paints & Thinners	ADVANCE PAINTS PVT LTD.,	CHENNAI	India	PERMANENT	Manufacturer
Paints & Thinners	RAMDEV RESINS PVT LTD	GANDHINAGR	India	PERMANENT	Manufacturer
Paints & Thinners	KANSAI NEROLAC PAINTS LIMITED,	CHENNAI	India	PERMANENT	Manufacturer
Paints & Thinners	SHALIMAR PAINTS LTD.	CHENNAI	India	PERMANENT	Manufacturer
Paints & Thinners	HARLEQUIN PAINTS PVT LTD	KHOPOLI	India	PERMANENT	Manufacturer
Paints & Thinners	CARBOLINE INDIA PRIVATE LTD	CHENNAI	India	PERMANENT	Manufacturer
Paints & Thinners	TITAN PAINTS & CHEMICALS LTD	COIMBATORE	India	PERMANENT	Manufacturer
Paints & Thinners	RAMDEV RESINS PVT LTD	GANDHINAGR	India	PERMANENT	Manufacturer
Paints & Thinners	BERGER PAINTS INDIA LTD.,	CHENNAI	India	PERMANENT	Manufacturer
Paints & Thinners	POWER LIGHT PAINTS	TRICHY	India	PERMANENT	Manufacturer

Paints & Thinners	STAR PAINT & OIL INDUSTRIES	MUMBAI	India	PERMANENT	Manufacturer
Paints & Thinners	ADVANCE PAINTS PVT LTD.,	CHENNAI	India	PERMANENT	Manufacturer
Paints & Thinners	ASIAN PAINTS PPG PRIVATE LTD.	CHENNAI	India	PERMANENT	Manufacturer
Paints & Thinners	JOTUN INDIA PVT LTD	CHENNAI	India	PERMANENT	Manufacturer
Paints & Thinners	KORROCOAT POLYMERS PVT LTD	PUNE	India	PERMANENT	Manufacturer
Paints & Thinners	KANSAI NEROLAC PAINTS LIMITED,	CHENNAI	India	PERMANENT	Manufacturer
Paints & Thinners	WESTERN INDIA PAINT& COLOUR CO. (P)	CHENNAI	India	PERMANENT	Manufacturer
Paints & Thinners	CARBOLINE INDIA PRIVATE LTD	CHENNAI	India	PERMANENT	Manufacturer
Paints & Thinners	SEVEN SEAS PAINTS PVT. LIMITED	NOIDA	India	PERMANENT	Manufacturer
Paints & Thinners	SHALIMAR PAINTS LTD.	CHENNAI	India	PERMANENT	Manufacturer
Paints & Thinners	BERGER PAINTS INDIA LTD.,	CHENNAI	India	PERMANENT	Manufacturer
Paints & Thinners	KORROCOAT POLYMERS PVT LTD	PUNE	India	PERMANENT	Manufacturer
Paints & Thinners	KANSAI NEROLAC PAINTS LIMITED,	CHENNAI	India	PERMANENT	Manufacturer
Paints & Thinners	GRAUER & WEIL (INDIA) LTD.,	CHENNAI	India	PERMANENT	Manufacturer
Paints & Thinners	RAMDEV RESINS PVT LTD	GANDHINAGR	India	PERMANENT	Manufacturer
Paints & Thinners	HARLEQUIN PAINTS PVT LTD	KHOPOLI	India	PERMANENT	Manufacturer
Paints & Thinners	ASIAN PAINTS PPG PRIVATE LTD.	CHENNAI	India	PERMANENT	Manufacturer
Paints & Thinners	STAR PAINT & OIL INDUSTRIES	MUMBAI	India	PERMANENT	Manufacturer
Paints & Thinners	POWER LIGHT PAINTS	TRICHY	India	PERMANENT	Manufacturer

Paints & Thinners	WESTERN INDIA PAINT& COLOUR CO. (P)	CHENNAI	India	PERMANENT	Manufacturer
Paints & Thinners	TITAN PAINTS & CHEMICALS LTD	COIMBATORE	India	PERMANENT	Manufacturer
Paints & Thinners	JOTUN INDIA PVT LTD	CHENNAI	India	PERMANENT	Manufacturer
Paints & Thinners	BERGER PAINTS INDIA LTD.,	CHENNAI	India	PERMANENT	Manufacturer
Paints & Thinners	HARLEQUIN PAINTS PVT LTD	KHOPOLI	India	PERMANENT	Manufacturer
Paints & Thinners	KORROCOAT POLYMERS PVT LTD	PUNE	India	PERMANENT	Manufacturer
Paints & Thinners	SHALIMAR PAINTS LTD.	CHENNAI	India	PERMANENT	Manufacturer
Paints & Thinners	RAMDEV RESINS PVT LTD	GANDHINAGR	India	PERMANENT	Manufacturer
Paints & Thinners	ASIAN PAINTS PPG PRIVATE LTD.	CHENNAI	India	PERMANENT	Manufacturer
Paints & Thinners	MEGA SHIELD COATING (P) LTD.,	MADURAI	India	PERMANENT	Manufacturer
Paints & Thinners	ADVANCE PAINTS PVT LTD.,	CHENNAI	India	PERMANENT	Manufacturer
Paints & Thinners	SEVEN SEAS PAINTS PVT. LIMITED	NOIDA	India	PERMANENT	Manufacturer
Paints & Thinners	CARBOLINE INDIA PRIVATE LTD	CHENNAI	India	PERMANENT	Manufacturer
Paints & Thinners	NOVAA PAINTS	TRICHY	India	PERMANENT	Manufacturer
Paints & Thinners	WESTERN INDIA PAINT& COLOUR CO. (P)	CHENNAI	India	PERMANENT	Manufacturer
Paints & Thinners	SRI MEENAAKSHI PAINT INDUSTRIES	PUDUKKOTTA	India	PERMANENT	Manufacturer
Paints & Thinners	POWER LIGHT PAINTS	TRICHY	India	PERMANENT	Manufacturer
Paints & Thinners	CHEMECOAT PAINTS,	TRICHY	India	PERMANENT	Manufacturer
Paints & Thinners	PASU MEENA PAINTS INDUSTRIES	TIRUPUVNAM	India	PERMANENT	Manufacturer

Paints & Thinners	GRAUER & WEIL (INDIA) LTD.,	CHENNAI	India	PERMANENT	Manufacturer
Paints & Thinners	SUNDARAM PAINTS PVT LTD	THANJAVUR	India	PERMANENT	Manufacturer
Paints & Thinners	KANSAI NEROLAC PAINTS LIMITED,	CHENNAI	India	PERMANENT	Manufacturer
Paints & Thinners	SHALIMAR PAINTS LTD.	CHENNAI	India	PERMANENT	Manufacturer
Paints & Thinners	KANSAI NEROLAC PAINTS LIMITED,	CHENNAI	India	PERMANENT	Manufacturer
Paints & Thinners	JOTUN INDIA PVT LTD	CHENNAI	India	PERMANENT	Manufacturer
Paints & Thinners	HARLEQUIN PAINTS PVT LTD	KHOPOLI	India	PERMANENT	Manufacturer
Paints & Thinners	POWER LIGHT PAINTS	TRICHY	India	PERMANENT	Manufacturer
Paints & Thinners	KORROCOAT POLYMERS PVT LTD	PUNE	India	PERMANENT	Manufacturer
Paints & Thinners	CHEMECOAT PAINTS,	TRICHY	India	PERMANENT	Manufacturer
Paints & Thinners	ADVANCE PAINTS PVT LTD.,	CHENNAI	India	PERMANENT	Manufacturer
Paints & Thinners	RAMDEV RESINS PVT LTD	GANDHINAGR	India	PERMANENT	Manufacturer
Paints & Thinners	WESTERN INDIA PAINT& COLOUR CO. (P)	CHENNAI	India	PERMANENT	Manufacturer
Paints & Thinners	TITAN PAINTS & CHEMICALS LTD	COIMBATORE	India	PERMANENT	Manufacturer
Paints & Thinners	GRAUER & WEIL (INDIA) LTD.,	CHENNAI	India	PERMANENT	Manufacturer
Paints & Thinners	ASIAN PAINTS PPG PRIVATE LTD.	CHENNAI	India	PERMANENT	Manufacturer
Paints & Thinners	GRAND POLYCOATS CO. PVT. LTD,	BARODA	India	PERMANENT	Manufacturer
Paints & Thinners	CARBOLINE INDIA PRIVATE LTD	CHENNAI	India	PERMANENT	Manufacturer
Paints & Thinners	BERGER PAINTS INDIA LTD.,	CHENNAI	India	PERMANENT	Manufacturer

Paints & Thinners	AKZO NOBEL INDIA LTD.	BANGALORE	India	PERMANENT	Manufacturer
Paints & Thinners	CHEMECOAT PAINTS,	TRICHY	India	PERMANENT	Manufacturer
Paints & Thinners	KORROCOAT POLYMERS PVT LTD	PUNE	India	PERMANENT	Manufacturer
Paints & Thinners	BERGER PAINTS INDIA LTD.,	CHENNAI	India	PERMANENT	Manufacturer
Paints & Thinners	POWER LIGHT PAINTS	TRICHY	India	PERMANENT	Manufacturer
Paints & Thinners	ASIAN PAINTS PPG PRIVATE LTD.	CHENNAI	India	PERMANENT	Manufacturer
Paints & Thinners	AKZO NOBEL INDIA LTD.	BANGALORE	India	PERMANENT	Manufacturer
Paints & Thinners	RAMDEV RESINS PVT LTD	GANDHINAGR	India	PERMANENT	Manufacturer
Paints & Thinners	GRAUER & WEIL (INDIA) LTD.,	CHENNAI	India	PERMANENT	Manufacturer
Paints & Thinners	KANSAI NEROLAC PAINTS LIMITED,	CHENNAI	India	PERMANENT	Manufacturer
Paints & Thinners	GRAND POLYCOATS CO. PVT. LTD,	BARODA	India	PERMANENT	Manufacturer
Paints & Thinners	TITAN PAINTS & CHEMICALS LTD	COIMBATORE	India	PERMANENT	Manufacturer
Paints & Thinners	SEVEN SEAS PAINTS PVT. LIMITED	NOIDA	India	PERMANENT	Manufacturer
Paints & Thinners	SHALIMAR PAINTS LTD.	CHENNAI	India	PERMANENT	Manufacturer
Paints & Thinners	JOTUN INDIA PVT LTD	CHENNAI	India	PERMANENT	Manufacturer
Paints & Thinners	WESTERN INDIA PAINT& COLOUR CO. (P)	CHENNAI	India	PERMANENT	Manufacturer
Paints & Thinners	ADVANCE PAINTS PVT LTD.,	CHENNAI	India	PERMANENT	Manufacturer
Paints & Thinners	CARBOLINE INDIA PRIVATE LTD	CHENNAI	India	PERMANENT	Manufacturer
Paints & Thinners	HARLEQUIN PAINTS PVT LTD	KHOPOLI	India	PERMANENT	Manufacturer

Paints & Thinners	HARLEQUIN PAINTS PVT LTD	KHOPOLI	India	PERMANENT	Manufacturer
Paints & Thinners	POWER LIGHT PAINTS	TRICHY	India	PERMANENT	Manufacturer
Paints & Thinners	RAMDEV RESINS PVT LTD	GANDHINAGR	India	PERMANENT	Manufacturer
Paints & Thinners	ASIAN PAINTS PPG PRIVATE LTD.	CHENNAI	India	PERMANENT	Manufacturer
Paints & Thinners	WESTERN INDIA PAINT& COLOUR CO. (P)	CHENNAI	India	PERMANENT	Manufacturer
Paints & Thinners	GRAND POLYCOATS CO. PVT. LTD,	BARODA	India	PERMANENT	Manufacturer
Paints & Thinners	SHALIMAR PAINTS LTD.	CHENNAI	India	PERMANENT	Manufacturer
Paints & Thinners	TITAN PAINTS & CHEMICALS LTD	COIMBATORE	India	PERMANENT	Manufacturer
Paints & Thinners	AKZO NOBEL INDIA LTD.	BANGALORE	India	PERMANENT	Manufacturer
Paints & Thinners	GRAUER & WEIL (INDIA) LTD.,	CHENNAI	India	PERMANENT	Manufacturer
Paints & Thinners	SEVEN SEAS PAINTS PVT. LIMITED	NOIDA	India	PERMANENT	Manufacturer
Paints & Thinners	BERGER PAINTS INDIA LTD.,	CHENNAI	India	PERMANENT	Manufacturer
Paints & Thinners	ADVANCE PAINTS PVT LTD.,	CHENNAI	India	PERMANENT	Manufacturer
Paints & Thinners	JOTUN INDIA PVT LTD	CHENNAI	India	PERMANENT	Manufacturer
Paints & Thinners	KANSAI NEROLAC PAINTS LIMITED,	CHENNAI	India	PERMANENT	Manufacturer
Paints & Thinners	CARBOLINE INDIA PRIVATE LTD	CHENNAI	India	PERMANENT	Manufacturer
Pipes	NAVRATNA METAL CORPN.,	MUMBAI	India	PERMANENT	Trader
Pipes	STEELMET INDUSTRIES,	MUMBAI	India	PERMANENT	Trader
Pipes	NAVNEET METAL CORPN.	MUMBAI	India	PERMANENT	Trader
Pipes	STERLING METAL DISTRIBUTORS,	MUMBAI	India	PERMANENT	Trader
Pipes	METAL TUBE INDUSTRIES	MUMBAI	India	PERMANENT	Trader
Pipes	KALPANA STEEL CENTRE	MUMBAI	India	PERMANENT	Trader
Pipes	SAKTHI HI-TECH CONTSTRN. (P) LTD		India	PERMANENT	Manufacturer

Pipes	SHRI SARAVANA ENGG WORKS		India	PERMANENT	Manufacturer
Pipes	BHARAT ENGG ENTERPRISES		India	PERMANENT	Manufacturer
Pipes	BALAMURUGAN ENGG. WORKS,	CHENNAI	India	PERMANENT	Manufacturer
Pipes	J.C INDUSTRIES	CHENNAI	India	PERMANENT	Manufacturer
Pipes	SREENIVASA ENGINEERING WORKS,	CHENNAI	India	PERMANENT	Manufacturer
Pipes	MUTHUKUMAR ENGG WORKS		India	PERMANENT	Manufacturer
Pipes	GOOD LUCK STEEL TUBES LTD	GAZIABAD	India	PERMANENT	Manufacturer
Pipes	JINDAL (INDIA) LIMITED,	CALCUTTA	India	PERMANENT	Manufacturer
Pipes	BHUSHAN STEEL LIMITED,	MUMBAI	India	PERMANENT	Manufacturer
Pipes	RATNAMANI METALS & TUBES LTD.,	AHMEDABAD	India	PERMANENT	Manufacturer
Pipes	MKK METAL SECTIONS PVT LTD	RANIPET	India	PERMANENT	Manufacturer
Pipes	SWASTIK PIPES LIMITED,	DELHI	India	PERMANENT	Manufacturer
Pipes	INDUS TUBES LTD	DELHI	India	PERMANENT	Manufacturer
Pipes	ADVANCE STEEL TUBES LTD	GAZIABAD	India	PERMANENT	Manufacturer
Pipes	HI-TECH PIPES LIMITED,	DELHI	India	PERMANENT	Manufacturer
Pipes	WELSPUN CORP LIMITED,	MUMBAI	India	PERMANENT	Manufacturer
Pipes	STEEL AUTHORITY OF INDIA LTD	CHENNAI	India	PERMANENT	Manufacturer
Pipes	GAURANG PRODUCTS PVT LTD	DELHI	India	PERMANENT	Manufacturer
Pipes	JCO GAS PIPE LTD.	DELHI	India	PERMANENT	Manufacturer
Pipes	MEGHA ENGINEERING	HYDERABAD	India	PERMANENT	Manufacturer
Pipes	WELSPUN CORP LIMITED,	MUMBAI	India	PERMANENT	Manufacturer
Pipes	RATNAMANI METALS & TUBES LTD.,	AHMEDABAD	India	PERMANENT	Manufacturer

Pipes	LALIT PIPES AND PIPES LIMITED	MUMBAI	India	PERMANENT	Manufacturer
Pipes	MAN INDUSTRIES (INDIA) LTD.	MUMBAI	India	PERMANENT	Manufacturer
Pipes	JINDAL (INDIA) LIMITED,	CALCUTTA	India	PERMANENT	Manufacturer
Pipes	STEEL AUTHORITY OF INDIA LTD	CHENNAI	India	PERMANENT	Manufacturer
Pipes	TOPWORTH PIPES & TUBES PVT.LTD.,	MUMBAI	India	PERMANENT	Manufacturer
Pipes	ESSAR STEEL INDIA LTD	HAZIRA	India	PERMANENT	Manufacturer
Pipes	CAPACITE STRUCTURES LTD.	MUMBAI	India	PERMANENT	Manufacturer
Pipes	SURYA GLOBAL STEEL TUBES LTD,	DELHI	India	PERMANENT	Manufacturer
Pipes	JINDAL SAW LTD.,	DELHI	India	PERMANENT	Manufacturer
Pipes	BHUSHAN STEEL LIMITED,	MUMBAI	India	PERMANENT	Manufacturer
Pipes	LALIT PIPES AND PIPES LIMITED	MUMBAI	India	PERMANENT	Manufacturer
Pipes	MAN INDUSTRIES (INDIA) LTD.	MUMBAI	India	PERMANENT	Manufacturer
Pipes	RATNAMANI METALS & TUBES LTD.,	AHMEDABAD	India	PERMANENT	Manufacturer
Pipes	JINDAL SAW LTD.,	DELHI	India	PERMANENT	Manufacturer
Pipes	ESSAR STEEL INDIA LTD	HAZIRA	India	PERMANENT	Manufacturer
Pipes	SWASTIK PIPES LIMITED,	DELHI	India	PERMANENT	Manufacturer
Pipes	GAURANG PRODUCTS PVT LTD	DELHI	India	PERMANENT	Manufacturer
Pipes	BHUSHAN STEEL LIMITED,	MUMBAI	India	PERMANENT	Manufacturer
Pipes	MKK METAL SECTIONS PVT LTD	RANIPET	India	PERMANENT	Manufacturer
Pipes	HI-TECH PIPES LIMITED,	DELHI	India	PERMANENT	Manufacturer
Pipes	JCO GAS PIPE LTD.	DELHI	India	PERMANENT	Manufacturer

Pipes	STEEL AUTHORITY OF INDIA LTD	CHENNAI	India	PERMANENT	Manufacturer
Pipes	RATNAMANI METALS & TUBES LTD.,	AHMEDABAD	India	PERMANENT	Manufacturer
Pipes	WELSPUN CORP LIMITED,	MUMBAI	India	PERMANENT	Manufacturer
Pipes	JINDAL (INDIA) LIMITED,	CALCUTTA	India	PERMANENT	Manufacturer
Pipes	RATNAMANI METALS & TUBES LTD.,	AHMEDABAD	India	PERMANENT	Manufacturer
Pipes	LALIT PIPES AND PIPES LIMITED	MUMBAI	India	PERMANENT	Manufacturer
Pipes	VALLOUREC TUBES FRANCE		France	PERMANENT	Manufacturer
Pipes	PRODUCTOS TUBULARES S.A.U		Spain	PERMANENT	Manufacturer
Pipes	METAL ONE CORPORATION,		Japan	PERMANENT	Foreign Agent
Pipes	TUBOS REUNIDOS INDUSTRIAL S.L.U.		Spain	PERMANENT	Manufacturer
Pipes	JIANGSU CHENGDE STEEL TUBE SHARE CO		China	PERMANENT	Manufacturer
Pipes	S.K.T.INTERNATIONAL TRADING (SHANG		China	PERMANENT	Foreign Agent
Pipes	RINGMILL SPA,		Italy	PERMANENT	Manufacturer
Pipes	YANGZHOU CHENGDE STEEL PIPE CO. LT		China	PERMANENT	Manufacturer
Pipes	YANGZHOU LONTRIN STEEL		China	PERMANENT	Manufacturer
Pipes	WYMAN-GORDON FORGINGS INC.		USA	PERMANENT	Manufacturer
Pipes	ZHEJIANG GROSS SEAMLESS STEEL		China	PERMANENT	Manufacturer
Pipes	HENGYANG STEEL TUBE GROUP INT'L		China	PERMANENT	Manufacturer
Pipes	TENARIS GLOBAL SERVICES,S.A.,		Uruguay	PERMANENT	Foreign Agent

Pipes	SUMITOMO CORPORATION ASIA & OCEANIA		Singapore	PERMANENT	Foreign Agent
Pipes	IBF S.P.A.		Italy	PERMANENT	Manufacturer
Pipes	SICHUAN SANZHOU SPECIAL STEEL		China	PERMANENT	Manufacturer
Pipes	BENTELER STEEL / TUBE GmbH		Germany	PERMANENT	Manufacturer
Pipes	JINDAL SAW LTD.,	NASIK	India	PERMANENT	Sales Office
Pipes	SICHUAN SANZHOU SPECIAL STEEL		China	PERMANENT	Manufacturer
Pipes	YANGZHOU LONTRIN STEEL		China	PERMANENT	Manufacturer
Pipes	BENTELER STEEL / TUBE GmbH		Germany	PERMANENT	Manufacturer
Pipes	JIANGXI HONGDU STEEL WORKS CO LTD		China	PERMANENT	Manufacturer
Pipes	HUBEI XINYEGANG STEEL CO LTD		China	PERMANENT	Manufacturer
Pipes	YANGZHOU CHENGDE STEEL PIPE CO. LT		China	PERMANENT	Manufacturer
Pipes	VALLOUREC TUBES FRANCE		France	PERMANENT	Manufacturer
Pipes	WYMAN-GORDON FORGINGS INC.		USA	PERMANENT	Manufacturer
Pipes	TENARIS GLOBAL SERVICES,S.A.,		Uruguay	PERMANENT	Foreign Agent
Pipes	ZHEJIANG GROSS SEAMLESS STEEL		China	PERMANENT	Manufacturer
Pipes	ISMT LIMITED,	PUNE	India	PERMANENT	Manufacturer
Pipes	TRANSWORLD FZE,		Utd.Arab Emir.	PERMANENT	Foreign Agent
Pipes	S.K.T.INTERNATIONAL TRADING (SHANG		China	PERMANENT	Foreign Agent
Pipes	RINGMILL SPA,		Italy	PERMANENT	Manufacturer
Pipes	HENGYANG STEEL TUBE GROUP INT'L		China	PERMANENT	Manufacturer

Pipes	PRODUCTOS TUBULARES S.A.U		Spain	PERMANENT	Manufacturer
Pipes	SUMITOMO CORPORATION ASIA & OCEANIA		Singapore	PERMANENT	Foreign Agent
Pipes	JIANGSU CHENGDE STEEL TUBE SHARE CO		China	PERMANENT	Manufacturer
Pipes	TUBOS REUNIDOS INDUSTRIAL S.L.U.		Spain	PERMANENT	Manufacturer
Pipes	METAL ONE CORPORATION,		Japan	PERMANENT	Foreign Agent
Pipes	IBF S.P.A.		Italy	PERMANENT	Manufacturer
Pipes	ZHEJIANG GROSS SEAMLESS STEEL		China	PERMANENT	Manufacturer
Pipes	SICHUAN SANZHOU SPECIAL STEEL		China	PERMANENT	Manufacturer
Pipes	YANGZHOU LONTRIN STEEL		China	PERMANENT	Manufacturer
Pipes	MAHARASHTRA SEAMLESS LTD.,	CHENNAI	India	PERMANENT	Manufacturer
Pipes	JIANGSU CHENGDE STEEL TUBE SHARE CO		China	PERMANENT	Manufacturer
Pipes	RINGMILL SPA,		Italy	PERMANENT	Manufacturer
Pipes	TUBOS REUNIDOS INDUSTRIAL S.L.U.		Spain	PERMANENT	Manufacturer
Pipes	ARCELORMITTAL TUBULAR PRODUCT ROMAN		Romania	PERMANENT	Manufacturer
Pipes	WYMAN-GORDON FORGINGS INC.		USA	PERMANENT	Manufacturer
Pipes	METAL ONE CORPORATION,		Japan	PERMANENT	Foreign Agent
Pipes	YANGZHOU CHENGDE STEEL PIPE CO. LT		China	PERMANENT	Manufacturer
Pipes	IBF S.P.A.		Italy	PERMANENT	Manufacturer
Pipes	VALLOUREC TUBES FRANCE		France	PERMANENT	Manufacturer

Pipes	ISMT LIMITED,	PUNE	India	PERMANENT	Manufacturer
Pipes	TRANSWORLD FZE,		Utd.Arab Emir.	PERMANENT	Foreign Agent
Pipes	S.K.T.INTERNATIONAL TRADING (SHANG		China	PERMANENT	Foreign Agent
Pipes	SUMITOMO CORPORATION ASIA & OCEANIA		Singapore	PERMANENT	Foreign Agent
Pipes	HEAVY METALS & TUBES LTD UNIT-III,	MEHASANA	India	PERMANENT	Manufacturer
Pipes	PRODUCTOS TUBULARES S.A.U		Spain	PERMANENT	Manufacturer
Pipes	HENGYANG STEEL TUBE GROUP INT'L		China	PERMANENT	Manufacturer
Pipes	HUBEI XINYEGANG STEEL CO LTD		China	PERMANENT	Manufacturer
Pipes	JIANGXI HONGDU STEEL WORKS CO LTD		China	PERMANENT	Manufacturer
Pipes	TENARIS GLOBAL SERVICES,S.A.,		Uruguay	PERMANENT	Foreign Agent
Pipes	BENTELER STEEL / TUBE GmbH		Germany	PERMANENT	Manufacturer
Pipes	JINDAL SAW LTD.,	NASIK	India	PERMANENT	Sales Office
Pipes	JINDAL SAW LTD.,	DELHI	India	PERMANENT	Manufacturer
Pipes	MEGHA ENGINEERING	HYDERABAD	India	PERMANENT	Manufacturer
Pipes	RATNAMANI METALS & TUBES LTD.,	AHMEDABAD	India	PERMANENT	Manufacturer
Pipes	CAPACITE STRUCTURES LTD.	MUMBAI	India	PERMANENT	Manufacturer
Pipes	ESSAR STEEL INDIA LTD	HAZIRA	India	PERMANENT	Manufacturer
Pipes	WELSPUN CORP LIMITED,	MUMBAI	India	PERMANENT	Manufacturer
Pipes	WELSPUN CORP LIMITED,	MUMBAI	India	PERMANENT	Manufacturer
Pipes	GAURANG PRODUCTS PVT LTD	DELHI	India	PERMANENT	Manufacturer
Pipes	MKK METAL SECTIONS PVT LTD	RANIPET	India	PERMANENT	Manufacturer
Pipes	VENKATESWARA CONDUITS PVT.LTD	CHENNAI	India	PERMANENT	Manufacturer
Pipes	TATA STEEL LIMITED.	CHENNAI	India	PERMANENT	Manufacturer
Pipes	SWASTIK PIPES LIMITED,	DELHI	India	PERMANENT	Manufacturer
Pipes	TOPWORTH PIPES & TUBES PVT.LTD.,	MUMBAI	India	PERMANENT	Manufacturer
Pipes	TAMILNADU STEEL TUBES LTD.	CHENNAI	India	PERMANENT	Manufacturer

Pipes	GOOD LUCK STEEL TUBES LTD	GAZIABAD	India	PERMANENT	Manufacturer
Pipes	RAVINDRA TUBES LIMITED,	DELHI	India	PERMANENT	Manufacturer
Pipes	APL APOLLO TUBES LIMITED,	DELHI	India	PERMANENT	Manufacturer
Pipes	ZENITH BIRLA (INDIA) LIMITED	MUMBAI	India	PERMANENT	Manufacturer
Pipes	INDUS TUBES LTD	DELHI	India	PERMANENT	Manufacturer
Pipes	SURYA ROSHNI LTD	DELHI	India	PERMANENT	Manufacturer
Pipes	HI-TECH PIPES LIMITED,	DELHI	India	PERMANENT	Manufacturer
Pipes	ADVANCE STEEL TUBES LTD	GAZIABAD	India	PERMANENT	Manufacturer
Pipes	HUADI STEEL GROUP CO. LTD.		China	PERMANENT	Manufacturer
Pipes	ROMAN CORPORATION		Japan	PERMANENT	Manufacturer
Pipes	REMI EDELSTAHL TUBULARS LIMITED,	MUMBAI	India	PERMANENT	Manufacturer
Pipes	SUMITOMO CORPORATION ASIA & OCEANIA		Singapore	PERMANENT	Foreign Agent
Pipes	PRAKASH STEELAGE LTD	MUMBAI	India	PERMANENT	Manufacturer
Pipes	TUBACEX TUBOS INOXIDABLES, S.A		Spain	PERMANENT	Manufacturer
Pipes	REMI EDELSTAHL TUBULARS LIMITED,	MUMBAI	India	PERMANENT	Manufacturer
Pipes	PRAKASH STEELAGE LTD	MUMBAI	India	PERMANENT	Manufacturer
Pipes	APEX TUBES PVT. LTD,	GURGAON	India	PERMANENT	Manufacturer
Pipes	RATNAMANI METALS & TUBES LTD.,	AHMEDABAD	India	PERMANENT	Manufacturer
Pipes	CHOKSI TUBE CO.LTD.	MUMBAI	India	PERMANENT	Manufacturer
Pipes	FLASH FORGE PVT LTD.,	VIZAG	India	PERMANENT	Manufacturer
Pipes	S&G ENGINEERS (P) LTD	FARIDABAD	India	PERMANENT	Manufacturer
Pipes	DEE DEVELOPMENT ENGINEERS LTD.,	FARIDABAD	India	PERMANENT	Manufacturer

Pipes	UNITECH MACHINES LTD.,	SHAHARNPUR	India	PERMANENT	Manufacturer
Pipes	S&G ENGINEERS (P) LTD	FARIDABAD	India	PERMANENT	Manufacturer
Pipes	DEE DEVELOPMENT ENGINEERS LTD.,	FARIDABAD	India	PERMANENT	Manufacturer
Pipes	UNITECH MACHINES LTD.,	SHAHARNPUR	India	PERMANENT	Manufacturer
Pipes	FLASH FORGE PVT LTD.,	VIZAG	India	PERMANENT	Manufacturer
Pipes	WELSPUN CORP LIMITED,	MUMBAI	India	PERMANENT	Manufacturer
Pipes	RATNAMANI METALS & TUBES LTD.,	AHMEDABAD	India	PERMANENT	Manufacturer
Pipes	LIAONING LARGE SCALE STEEL PIPE CO.		China	PERMANENT	Manufacturer
Pipes	JINDAL SAW LTD.,	DELHI	India	PERMANENT	Manufacturer
Pipes	JINDAL INDUSTRIES LTD.,	ROHTAK	India	PERMANENT	Manufacturer
Pipes	ESSAR STEEL INDIA LTD	HAZIRA	India	PERMANENT	Manufacturer
Pipes	JINDAL (INDIA) LIMITED,	CALCUTTA	India	PERMANENT	Manufacturer
Pipes	MAHARASHTRA SEAMLESS LTD.,	CHENNAI	India	PERMANENT	Manufacturer
Pipes	SURYA ROSHNI LTD	DELHI	India	PERMANENT	Manufacturer
Pipes	SEAH STEEL CORPORTAION		South Korea	PERMANENT	Manufacturer
Pipes	TOPWORTH PIPES & TUBES PVT.LTD.,	MUMBAI	India	PERMANENT	Manufacturer
Pipes	GAURANG PRODUCTS PVT LTD	DELHI	India	PERMANENT	Manufacturer
Pipes	BHUSHAN STEEL LIMITED,	MUMBAI	India	PERMANENT	Manufacturer
Pipes	SURYA GLOBAL STEEL TUBES LTD,	DELHI	India	PERMANENT	Manufacturer

Pipes	LALIT PIPES AND PIPES LIMITED	MUMBAI	India	PERMANENT	Manufacturer
Pipes	PSL LIMITED,	CHENNAI	India	PERMANENT	Manufacturer
Pipes	JINDAL PIPES LTD.	GURGAON	India	PERMANENT	Manufacturer
Pipes	MAN INDUSTRIES (INDIA) LTD.	MUMBAI	India	PERMANENT	Manufacturer
Pipes	TAMIL NADU STEEL TUBES LTD.	CHENNAI	India	PERMANENT	Sales Office
Pipes	TATA STEEL LIMITED.	CHENNAI	India	PERMANENT	Manufacturer
Pipes	SURYA ROSHNI LTD	DELHI	India	PERMANENT	Manufacturer
Pipes	GOOD LUCK STEEL TUBES LTD	GAZIABAD	India	PERMANENT	Manufacturer
Pipes	JINDAL INDUSTRIES LTD.,	ROHTAK	India	PERMANENT	Manufacturer
Pipes	NAVRATAN PIPE AND PROFILE LTD.,	JAIPUR	India	PERMANENT	Manufacturer
Pipes	GAURANG PRODUCTS PVT LTD	DELHI	India	PERMANENT	Manufacturer
Pipes	MKK METAL SECTIONS PVT LTD	RANIPET	India	PERMANENT	Manufacturer
Pipes	SWASTIK PIPES LIMITED,	DELHI	India	PERMANENT	Manufacturer
Pipes	JINDAL PIPES LTD.	GURGAON	India	PERMANENT	Manufacturer
Pipes	P.S.STEEL TUBES LTD, UNIT II	BHILAI	India	PERMANENT	Manufacturer

Pipes	RIDDHI STEEL & TUBES (P) LTD	AHMEDABAD	India	PERMANENT	Manufacturer
Pipes	NEZONE TUBES LIMITED,	CALCUTTA	India	PERMANENT	Manufacturer
Pipes	ZENITH BIRLA (INDIA) LIMITED	MUMBAI	India	PERMANENT	Manufacturer
Pipes	APL APOLLO TUBES LIMITED,	DELHI	India	PERMANENT	Manufacturer
Pipes	SAWARIA PIPES PRIVATE LIMITED,	SECNDRABAD	India	PERMANENT	Manufacturer
Pipes	CRIMSON METAL ENGINEERING CO.LTD.	CHENNAI	India	PERMANENT	Manufacturer
Pipes	WYMAN-GORDON FORGINGS INC.		USA	PERMANENT	Manufacturer
Pipes	METAL ONE CORPORATION,		Japan	PERMANENT	Foreign Agent
Pipes	SICHUAN SANZHOU SPECIAL STEEL		China	PERMANENT	Manufacturer
Pipes	S.K.T.INTERNATIONAL TRADING (SHANG		China	PERMANENT	Foreign Agent
Pipes	ZHEJIANG GROSS SEAMLESS STEEL		China	PERMANENT	Manufacturer
Pipes	YANGZHOU LONTRIN STEEL		China	PERMANENT	Manufacturer
Pipes	HENGYANG STEEL TUBE GROUP INT'L		China	PERMANENT	Manufacturer
Pipes	VALLOUREC TUBES FRANCE		France	PERMANENT	Manufacturer
Pipes	YANGZHOU CHENGDE STEEL PIPE CO. LT		China	PERMANENT	Manufacturer
Pipes	TUBOS REUNIDOS INDUSTRIAL S.L.U.		Spain	PERMANENT	Manufacturer
Pipes	PRODUCTOS TUBULARES S.A.U		Spain	PERMANENT	Manufacturer

Pipes	BENTELER STEEL / TUBE GmBH		Germany	PERMANENT	Manufacturer
Pipes	RINGMILL SPA,		Italy	PERMANENT	Manufacturer
Pipes	JIANGSU CHENGDE STEEL TUBE SHARE CO		China	PERMANENT	Manufacturer
Pipes	IBF S.P.A.		Italy	PERMANENT	Manufacturer
Pipes	SUMITOMO CORPORATION ASIA & OCEANIA		Singapore	PERMANENT	Foreign Agent
Pipes	TENARIS GLOBAL SERVICES,S.A.,		Uruguay	PERMANENT	Foreign Agent
Pipes	TRANSWORLD FZE,		Utd.Arab Emir.	PERMANENT	Foreign Agent
Pipes	HUBEI XINYEGANG STEEL CO LTD		China	PERMANENT	Manufacturer
Pipes	BENTELER STEEL / TUBE GmBH		Germany	PERMANENT	Manufacturer
Pipes	METAL ONE CORPORATION,		Japan	PERMANENT	Foreign Agent
Pipes	YANGZHOU CHENGDE STEEL PIPE CO. LT		China	PERMANENT	Manufacturer
Pipes	ISMT LIMITED,	PUNE	India	PERMANENT	Manufacturer
Pipes	HENGYANG STEEL TUBE GROUP INT'L		China	PERMANENT	Manufacturer
Pipes	IBF S.P.A.		Italy	PERMANENT	Manufacturer
Pipes	S.K.T.INTERNATIONAL TRADING (SHANG		China	PERMANENT	Foreign Agent
Pipes	VALLOUREC TUBES FRANCE		France	PERMANENT	Manufacturer
Pipes	SUMITOMO CORPORATION ASIA & OCEANIA		Singapore	PERMANENT	Foreign Agent
Pipes	TUBOS REUNIDOS INDUSTRIAL S.L.U.		Spain	PERMANENT	Manufacturer
Pipes	RINGMILL SPA,		Italy	PERMANENT	Manufacturer

Pipes	SICHUAN SANZHOU SPECIAL STEEL		China	PERMANENT	Manufacturer
Pipes	JINDAL SAW LTD.,	NASIK	India	PERMANENT	Sales Office
Pipes	JIANGSU CHENGDE STEEL TUBE SHARE CO		China	PERMANENT	Manufacturer
Pipes	TENARIS GLOBAL SERVICES,S.A.,		Uruguay	PERMANENT	Foreign Agent
Pipes	PRODUCTOS TUBULARES S.A.U		Spain	PERMANENT	Manufacturer
Pipes	YANGZHOU LONTRIN STEEL		China	PERMANENT	Manufacturer
Pipes	JIANGXI HONGDU STEEL WORKS CO LTD		China	PERMANENT	Manufacturer
Pipes	WYMAN-GORDON FORGINGS INC.		USA	PERMANENT	Manufacturer
Pipes	ZHEJIANG GROSS SEAMLESS STEEL		China	PERMANENT	Manufacturer
Pipes	BENTELER STEEL / TUBE GmBH		Germany	PERMANENT	Manufacturer
Pipes	METAL ONE CORPORATION,		Japan	PERMANENT	Foreign Agent
Pipes	YANGZHOU CHENGDE STEEL PIPE CO. LT		China	PERMANENT	Manufacturer
Pipes	VALLOUREC TUBES FRANCE		France	PERMANENT	Manufacturer
Pipes	TENARIS GLOBAL SERVICES,S.A.,		Uruguay	PERMANENT	Foreign Agent
Pipes	RINGMILL SPA,		Italy	PERMANENT	Manufacturer
Pipes	ARCELORMITTAL TUBULAR PRODUCT ROMAN		Romania	PERMANENT	Manufacturer
Pipes	JIANGXI HONGDU STEEL WORKS CO LTD		China	PERMANENT	Manufacturer
Pipes	ZHEJIANG GROSS SEAMLESS STEEL		China	PERMANENT	Manufacturer
Pipes	MAHARASHTRA SEAMLESS LTD.,	CHENNAI	India	PERMANENT	Manufacturer

Pipes	HENGYANG STEEL TUBE GROUP INT'L		China	PERMANENT	Manufacturer
Pipes	JIANGSU CHENGDE STEEL TUBE SHARE CO		China	PERMANENT	Manufacturer
Pipes	YANGZHOU LONTRIN STEEL		China	PERMANENT	Manufacturer
Pipes	TUBOS REUNIDOS INDUSTRIAL S.L.U.		Spain	PERMANENT	Manufacturer
Pipes	JINDAL SAW LTD.,	NASIK	India	PERMANENT	Sales Office
Pipes	SICHUAN SANZHOU SPECIAL STEEL		China	PERMANENT	Manufacturer
Pipes	HUBEI XINYEGANG STEEL CO LTD		China	PERMANENT	Manufacturer
Pipes	S.K.T.INTERNATIONAL TRADING (SHANG		China	PERMANENT	Foreign Agent
Pipes	HEAVY METALS & TUBES LTD UNIT-III,	MEHASANA	India	PERMANENT	Manufacturer
Pipes	ISMT LIMITED,	PUNE	India	PERMANENT	Manufacturer
Pipes	PRODUCTOS TUBULARES S.A.U		Spain	PERMANENT	Manufacturer
Pipes	WYMAN-GORDON FORGINGS INC.		USA	PERMANENT	Manufacturer
Pipes	SUMITOMO CORPORATION ASIA & OCEANIA		Singapore	PERMANENT	Foreign Agent
Pipes	IBF S.P.A.		Italy	PERMANENT	Manufacturer
Pipes	TRANSWORLD FZE,		Utd.Arab Emir.	PERMANENT	Foreign Agent
Pipes	TUBACEX TUBOS INOXIDABLES, S.A		Spain	PERMANENT	Manufacturer
Pipes	HUADI STEEL GROUP CO. LTD.		China	PERMANENT	Manufacturer
Pipes	PRODUCTOS TUBULARES S.A.U		Spain	PERMANENT	Manufacturer
Pipes	SALZGITTER MANESSMANN STAINLESS		Italy	PERMANENT	Manufacturer
Pipes	ZHEJIANG JIULI HI-TECH METALS Co. L		China	PERMANENT	Manufacturer

Pipes	JIANGSU WUJIN STAINLESS STEEL PIPE		China	PERMANENT	Manufacturer
Steel	JEETMULL JAICHANDLALL PVT LTD	CALCUTTA	India	PERMANENT	Manufacturer
Steel	TRUST IMPEXS	CHENNAI	India	PERMANENT	Indian Agent
Steel	CHANDAN STEEL LIMITED,	VALSAD	India	PERMANENT	Manufacturer
Steel	BHANSALI BRIGHT BARS PVT. LTD,	MUMBAI	India	PERMANENT	Manufacturer
Steel	NATIONAL WIRENETTING INDUSTRIES,	CALCUTTA	India	PERMANENT	Manufacturer
Steel	KIRAN WIRE NETTING CO.,	CHENNAI	India	PERMANENT	Sales Office
Steel	JEETMULL JAICHANDLALL (MADRAS)	CHENNAI	India	PERMANENT	Manufacturer
Steel	JEETMULL JAICHANDLALL (MADRAS)	CHENNAI	India	PERMANENT	Manufacturer
Steel	JEETMULL JAICHANDLALL PVT LTD	CALCUTTA	India	PERMANENT	Manufacturer
Steel	NATIONAL WIRENETTING INDUSTRIES,	CALCUTTA	India	PERMANENT	Manufacturer
Steel	KIRAN WIRE NETTING CO.,	CHENNAI	India	PERMANENT	Sales Office
Steel	VIKRANT FORGE LIMITED,	CALCUTTA	India	PERMANENT	Manufacturer
Steel	WESTERN INDIA FORGINGS LTD	PUNE	India	PERMANENT	Manufacturer
Steel	ISMT LIMITED,	PUNE	India	PERMANENT	Manufacturer
Steel	STAR WIRE(INDIA) LTD	FARIDABAD	India	PERMANENT	Manufacturer
Steel	STEEL AUTHORITY OF INDIA	CHENNAI	India	PERMANENT	Sales Office
Steel	ARCVAC FORGECAST PRIVATE LIMITED,	CALCUTTA	India	PERMANENT	Manufacturer
Steel	SUNFLAG IRON & STEEL CO.LTD.,	BHANDARARD	India	PERMANENT	Manufacturer
Steel	WESTERN INDIA FORGINGS LTD	PUNE	India	PERMANENT	Manufacturer
Steel	ISMT LIMITED,	PUNE	India	PERMANENT	Manufacturer
Steel	STAR WIRE(INDIA) LTD	FARIDABAD	India	PERMANENT	Manufacturer
Steel	SUNFLAG IRON & STEEL CO.LTD.,	BHANDARARD	India	PERMANENT	Manufacturer
Steel	ARCVAC FORGECAST PRIVATE LIMITED,	CALCUTTA	India	PERMANENT	Manufacturer
Steel	STEEL AUTHORITY OF INDIA	CHENNAI	India	PERMANENT	Sales Office
Steel	VIKRANT FORGE LIMITED,	CALCUTTA	India	PERMANENT	Manufacturer
Steel	Bharat Heavy Electricals Limited ,T	AMRITSAR	India	PERMANENT	Manufacturer
Steel	SAIL-VISL	DELHI	India	PERMANENT	Manufacturer
Steel	ISMT LIMITED,	PUNE	India	PERMANENT	Manufacturer
Steel	GRAPHITE INDIA LTD.,	BHVANESHWAR	India	PERMANENT	Manufacturer
Steel	Kumar Engineering Corporation	AMRITSAR	India	TRIAL	Manufacturer
Steel	MOD FORGE PVT.LIMITED	CHENNAI	India	PERMANENT	Manufacturer

Steel	KALYANI CARPENTER SPECIAL STEELS	PUNE	India	PERMANENT	Manufacturer
Steel	SUNFLAG IRON & STEEL CO.LTD.,	BHANDARARD	India	PERMANENT	Manufacturer
Steel	STAR WIRE(INDIA) LTD	FARIDABAD	India	PERMANENT	Manufacturer
Steel	ARCVAC FORGECAST PRIVATE LIMITED,	CALCUTTA	India	PERMANENT	Manufacturer
Steel	R.L.STEELS & ENERGY LTD.,	AURANGABAD	India	PERMANENT	Manufacturer
Steel	KALYANI CARPENTER SPECIAL STEELS	PUNE	India	PERMANENT	Manufacturer
Steel	ARCVAC FORGECAST PRIVATE LIMITED,	CALCUTTA	India	PERMANENT	Manufacturer
Steel	Vikrant Forge Limited	CALCUTTA	India	PERMANENT	Manufacturer
Steel	SUNFLAG IRON & STEEL CO.LTD.,	BHANDARARD	India	PERMANENT	Manufacturer
Steel	STAR WIRE(INDIA) LTD	FARIDABAD	India	PERMANENT	Manufacturer
Steel	ISMT LIMITED,	PUNE	India	PERMANENT	Manufacturer
Steel	Bharat Heavy Electricals Limited ,T	AMRITSAR	India	PERMANENT	Manufacturer
Steel	SAIL-VISL	DELHI	India	PERMANENT	Manufacturer
Steel	MOD FORGE PVT.LIMITED	CHENNAI	India	PERMANENT	Manufacturer
Steel	Kumar Engineering Corporation	AMRITSAR	India	TRIAL	Manufacturer
Steel	KALYANI CARPENTER SPECIAL STEELS	PUNE	India	PERMANENT	Manufacturer
Steel	STAR WIRE(INDIA) LTD	FARIDABAD	India	PERMANENT	Manufacturer
Steel	Bharat Heavy Electricals Limited ,T	AMRITSAR	India	PERMANENT	Manufacturer
Steel	Kumar Engineering Corporation	AMRITSAR	India	TRIAL	Manufacturer
Steel	MAHINDRA SANYO SPECIAL STEEL	RAIGARH	India	PERMANENT	Sales Office
Steel	LAXCON STEELS LTD	AHMEDABAD	India	PERMANENT	Manufacturer
Steel	VIKRANT FORGE LIMITED,	CALCUTTA	India	PERMANENT	Manufacturer
Steel	ARCVAC FORGECAST PRIVATE LIMITED,	CALCUTTA	India	PERMANENT	Manufacturer
Steel	Steel Authority of India Limited	AMRITSAR	India	PERMANENT	Sales Office
Steel	Steel Authority of India Limited	AMRITSAR	India	PERMANENT	Sales Office
Steel	STEEL AUTHORITY OF INDIA LTD	LUDHIANA	India	PERMANENT	Sales Office
Steel	Bharat Heavy Electricals Limited ,T	AMRITSAR	India	PERMANENT	Manufacturer
Steel	ARCVAC FORGECAST PRIVATE LIMITED,	CALCUTTA	India	Development	Manufacturer
Steel	KALYANI CARPENTER SPECIAL STEELS	PUNE	India	Development	Manufacturer
Steel	STAR WIRE(INDIA) LTD	FARIDABAD	India	PERMANENT	Manufacturer
Steel	BGH EDELSTAHL FREITAL GMBH		Germany	Development	Manufacturer
Steel	LAXCON STEELS LTD	AHMEDABAD	India	Development	Manufacturer
Steel	VIKRANT FORGE LIMITED,	CALCUTTA	India	PERMANENT	Manufacturer
Steel	BGH EDELSTAHL FREITAL GMBH		Germany	PERMANENT	Manufacturer

Steel	MAHER LIMITED		United Kingdom	PERMANENT	Trader
Steel	SPECIAL METALS WIGGIN LIMITED		United Kingdom	PERMANENT	Manufacturer
Steel	SALZGITTER MANNESMANN,		Germany	PERMANENT	Manufacturer
Steel	INDUSTEEL LOIRE		France	PERMANENT	Manufacturer
Steel	ACRONI.D.O.O,		Slovenia	PERMANENT	Manufacturer
Steel	INDUSTEEL BELGIUM		Belgium	PERMANENT	Manufacturer
Steel	KALYANI CARPENTER SPECIAL STEELS	PUNE	India	PERMANENT	Manufacturer
Steel	DEUTSCHE EDELSTAHLWERKE GMBH,		Germany	PERMANENT	Manufacturer
Steel	GLORIA MATERIAL TECHNOLOGY CORP,		Taiwan	PERMANENT	Manufacturer
Steel	ASCO INDUSTRIES SAS		France	PERMANENT	Manufacturer
Steel	TRUST IMPEXS	CHENNAI	India	PERMANENT	Indian Agent
Steel	VIKRANT FORGE LIMITED,	CALCUTTA	India	PERMANENT	Manufacturer
Steel	STAR WIRE(INDIA) LTD	FARIDABAD	India	PERMANENT	Manufacturer
Steel	DEUTSCHE EDELSTAHLWERKE GMBH,		Germany	PERMANENT	Manufacturer
Steel	CHANDAN STEEL LIMITED,	VALSAD	India	PERMANENT	Manufacturer
Steel	SUNFLAG IRON & STEEL CO.LTD.,	BHANDARARD	India	PERMANENT	Manufacturer
Steel	KALYANI CARPENTER SPECIAL STEELS	PUNE	India	PERMANENT	Manufacturer
Steel	LAXCON STEELS LTD	AHMEDABAD	India	PERMANENT	Manufacturer
Steel	MISHRA DHATU NIGAM LTD.,	HYDERABAD	India	PERMANENT	Manufacturer
Steel	BGH EDELSTAHL FREITAL GMBH		Germany	PERMANENT	Manufacturer
Steel	STAR WIRE(INDIA) LTD	FARIDABAD	India	Development	Manufacturer
Steel	BGH EDELSTAHL SIEGEN GMBH		Germany	PERMANENT	Manufacturer
Steel	BHARAT FORGE LIMITED	PUNE	India	Development	Manufacturer
Steel	BGH EDELSTAHL FREITAL GMBH		Germany	PERMANENT	Manufacturer
Steel	KUNJ FORGINGS P LTD	GAZIABAD	India	TRIAL	Manufacturer
Steel	KALYANI STEELS LTD	PUNE	India	PERMANENT	Manufacturer

Steel	STEEL AUTHORITY OF INDIA	CHENNAI	India	PERMANENT	Sales Office
Steel	ISMT LIMITED,	PUNE	India	PERMANENT	Manufacturer
Steel	DAYE SPECIAL STEEL CO.,LTD		China	PERMANENT	Manufacturer
Steel	RMG ALLOY STEEL LIMITED	AHMEDABAD	India	PERMANENT	Manufacturer
Steel	DAEWOO INTERNATIONAL CORPORATION		South Korea	PERMANENT	Foreign Agent
Steel	UNION STAHL GMBH,		Germany	PERMANENT	Foreign Agent
Steel	ESSAR STEEL INDIA LIMITED,	CHENNAI	India	PERMANENT	Manufacturer
Steel	UTTAM VALUE STEELS LTD	NASIK	India	PERMANENT	Manufacturer
Steel	JIANGYIN XINGCHENG SPECIAL STEEL		China	PERMANENT	Manufacturer
Steel	DILLINGER INTERNATIONAL		France	PERMANENT	Manufacturer
Steel	NLMK PLATE SALES SA		Belgium	PERMANENT	Manufacturer
Steel	INDUSTEEL BELGIUM		Belgium	PERMANENT	Manufacturer
Steel	INDUSTEEL LOIRE		France	PERMANENT	Manufacturer
Steel	JINDAL STEEL AND POWER LTD.,	ANGUL	India	TRIAL	Manufacturer
Steel	ACRONI.D.O.O,		Slovenia	PERMANENT	Manufacturer
Steel	SALZGITTER MANNESMANN,		Germany	PERMANENT	Manufacturer
Steel	HANWA CO.LTD.,		Japan	PERMANENT	Foreign Agent
Steel	STEEL AUTHORITY OF INDIA LTD	TRICHY	India	PERMANENT	Manufacturer
Steel	STEEL FORCE N.V		Belgium	PERMANENT	Foreign Agent

Steel	KUNJ FORGINGS P LTD	GAZIABAD	India	PERMANENT	Manufacturer
Steel	SUNFLAG IRON & STEEL CO.LTD.,	BHANDARARD	India	PERMANENT	Manufacturer
Steel	KALYANI CARPENTER SPECIAL STEELS	PUNE	India	PERMANENT	Manufacturer
Steel	ISMT LIMITED,	PUNE	India	PERMANENT	Manufacturer
Steel	ASCO INDUSTRIES SAS		France	PERMANENT	Manufacturer
Steel	ARCVAC FORGECAST PRIVATE LIMITED,	CALCUTTA	India	PERMANENT	Manufacturer
Steel	MAHINDRA SANYO SPECIAL STEEL	RAIGARH	India	PERMANENT	Manufacturer
Steel	VIKRANT FORGE LIMITED,	CALCUTTA	India	PERMANENT	Manufacturer
Steel	GRAPHITE INDIA LTD.,	BHVNESHWR	India	PERMANENT	Manufacturer
Steel	GLORIA MATERIAL TECHNOLOGY CORP,		Taiwan	PERMANENT	Manufacturer
Steel	STAR WIRE(INDIA) LTD	FARIDABAD	India	PERMANENT	Manufacturer
Steel	STEEL AUTHORITY OF INDIA	CHENNAI	India	PERMANENT	Sales Office
Steel	DEUTSCHE EDELSTAHLWERKE GMBH,		Germany	PERMANENT	Manufacturer
Steel	DILLINGER INTERNATIONAL		France	PERMANENT	Manufacturer
Steel	INDUSTEEL LOIRE		France	PERMANENT	Manufacturer
Steel	INDUSTEEL BELGIUM		Belgium	PERMANENT	Manufacturer
Steel	REINER BRACH GMBH & CO.KG		Germany	PERMANENT	Manufacturer
Steel	HANWA CO.LTD.,		Japan	PERMANENT	Foreign Agent
Steel	JINDAL STEEL AND POWER LTD.,	ANGUL	India	PERMANENT	Manufacturer
Steel	ESSAR STEEL INDIA LIMITED,	CHENNAI	India	PERMANENT	Manufacturer
Steel	STEEL AUTHORITY OF INDIA LTD	BHILAI	India	PERMANENT	Manufacturer
Steel	SALZGITTER MANNESMANN,		Germany	PERMANENT	Manufacturer
Steel	STEEL AUTHORITY OF INDIA LTD	BHILAI	India	PERMANENT	Manufacturer
Steel	INDUSTEEL LOIRE		France	PERMANENT	Manufacturer

Steel	INDUSTEEL BELGIUM		Belgium	PERMANENT	Manufacturer
Steel	SALZGITTER MANNESMANN,		Germany	PERMANENT	Manufacturer
Steel	JINDAL STEEL AND POWER LTD.,	ANGUL	India	PERMANENT	Manufacturer
Steel	DILLINGER INTERNATIONAL		France	PERMANENT	Manufacturer
Steel	JINDAL STEEL & POWER LIMITED,	CHENNAI	India	PERMANENT	Manufacturer
Steel	ESSAR STEEL INDIA LIMITED,	CHENNAI	India	PERMANENT	Manufacturer
Steel	JIANGYIN XINGCHENG SPECIAL STEEL		China	PERMANENT	Manufacturer
Steel	REINER BRACH GMBH & CO.KG		Germany	PERMANENT	Manufacturer
Steel	JSW STEEL LIMITED	CHENNAI	India	PERMANENT	Manufacturer
Steel	DAYE SPECIAL STEEL CO.,LTD		China	PERMANENT	Manufacturer
Steel	RMG ALLOY STEEL LIMITED	AHMEDABAD	India	PERMANENT	Manufacturer
Steel	ISMT LIMITED,	PUNE	India	PERMANENT	Manufacturer
Steel	KALYANI STEELS LTD	PUNE	India	PERMANENT	Manufacturer
Steel	STEEL AUTHORITY OF INDIA	CHENNAI	India	PERMANENT	Sales Office
Steel	JINDAL STEEL & POWER LIMITED,	CHENNAI	India	PERMANENT	Manufacturer
Steel	ADHUNIK METALIKS LTD.,	SURNDRNAGR	India	PERMANENT	Manufacturer
Steel	KANISHK STEEL INDUSTRIES Ltd.,	CHENNAI	India	PERMANENT	Manufacturer
Steel	CHENNAI UNITED METAL INDUSTRIES	CHENNAI	India	PERMANENT	Manufacturer
Steel	BEEKAY STEEL INDUSTRIES LTD.	KANCHIPURM	India	PERMANENT	Manufacturer
Steel	FERROMET STEELS PVT. LTD.	CHENNAI	India	PERMANENT	Manufacturer

Steel	HANWA CO.LTD.,		Japan	PERMANENT	Foreign Agent
Steel	STEEL AUTHORITY OF INDIA LTD	BHILAI	India	PERMANENT	Manufacturer
Steel	DILLINGER INTERNATIONAL		France	PERMANENT	Manufacturer
Steel	REINER BRACH GMBH & CO.KG		Germany	PERMANENT	Manufacturer
Steel	JIANGYIN XINGCHENG SPECIAL STEEL		China	TRIAL	Manufacturer
Steel	SALZGITTER MANNESMANN,		Germany	PERMANENT	Manufacturer
Steel	ESSAR STEEL INDIA LIMITED,	CHENNAI	India	PERMANENT	Manufacturer
Steel	QINGDAO INTERCONTINENTAL STEEL LTD.		Hong Kong	PERMANENT	Foreign Agent
Steel	DAEWOO INTERNATIONAL CORPORATION		South Korea	PERMANENT	Foreign Agent
Steel	TATA STEEL LIMITED	CHENNAI	India	PERMANENT	Manufacturer
Steel	JSW STEEL LTD.,	MUMBAI	India	PERMANENT	Manufacturer
Steel	JINDAL STEEL AND POWER LTD.,	ANGUL	India	PERMANENT	Manufacturer
Steel	ESSAR STEEL INDIA LIMITED,	CHENNAI	India	PERMANENT	Manufacturer
Steel	UTTAM VALUE STEELS LTD	NASIK	India	PERMANENT	Manufacturer
Steel	JSW STEEL LTD.	BELLARY	India	PERMANENT	Manufacturer
Steel	STEEL AUTHORITY OF INDIA LTD	BHILAI	India	PERMANENT	Manufacturer
Steel	JINDAL STEEL & POWER LIMITED,	CHENNAI	India	PERMANENT	Manufacturer
Steel	STEEL AUTHORITY OF INDIA LTD	ROURKELA	India	PERMANENT	Manufacturer

Steel	STEEL AUTHORITY OF INDIA LTD	BOKARO	India	PERMANENT	Manufacturer
Steel	JSW STEEL LTD.	BELLARY	India	PERMANENT	Manufacturer
Steel	STEEL AUTHORITY OF INDIA LTD	TRICHY	India	PERMANENT	Manufacturer
Steel	UTTAM VALUE STEELS LTD	NASIK	India	PERMANENT	Manufacturer
Steel	BHUSHAN STEEL LTD	CHENNAI	India	PERMANENT	Manufacturer
Steel	ESSAR STEEL INDIA LIMITED,	CHENNAI	India	PERMANENT	Manufacturer
Steel	MTC BUSINESS PVT LTD	CHENNAI	India	PERMANENT	Manufacturer
Steel	MAHAMAYA STEEL INDUSTRIES,	RAIPUR	India	PERMANENT	Manufacturer
Steel	SUJANA METAL PRODUCTS LTD,	VIZAG	India	PERMANENT	Manufacturer
Steel	RELIABLE SPONGE PVT.LTD.,	ROURKELA	India	PERMANENT	Manufacturer
Steel	JEEVAKA INDUSTRIES PVT LTD	HYDERABAD	India	PERMANENT	Manufacturer
Steel	TOPWORTH STEEL AND POWER PVT.LTD.,	DURG	India	PERMANENT	Manufacturer
Steel	NOBLE TECH INDUSTRIES PVT. LIMITED,	KANCHIPURM	India	PERMANENT	Manufacturer
Steel	MONNET ISPAT &ENERGY LIMITED	DELHI	India	PERMANENT	Manufacturer
Steel	PRIME ISPAT LIMITED,	RAIPUR	India	PERMANENT	Manufacturer
Steel	SKS ISPAT & POWER LTD,	DELHI	India	PERMANENT	Manufacturer
Steel	STEEL AUTHORITY OF INDIA LTD	BHILAI	India	PERMANENT	Manufacturer
Steel	BEEKAY STRUCTURAL STEELS.,	VIZAG	India	PERMANENT	Manufacturer
Steel	KHYATI ISPAT LTD	RAIPUR	India	PERMANENT	Manufacturer
Steel	NANDAN STEELS & POWER LTD.,	RAIPUR	India	PERMANENT	Manufacturer

Steel	FORTUNE METALIKS LIMITED	RAIPUR	India	PERMANENT	Manufacturer
Steel	SHRI BAJRANG ALLOYS LTD.	RAIPUR	India	PERMANENT	Manufacturer
Steel	K L STEELS (P) LTD,	GAZIABAD	India	PERMANENT	Manufacturer
Steel	JINDAL STEEL & POWER LIMITED,	CHENNAI	India	PERMANENT	Manufacturer
Steel	KARAMTARA ENGINEERING PVT LTD	MUMBAI	India	PERMANENT	Manufacturer
Steel	STEEL AUTHORITY OF INDIA LTD	DURGAPUR	India	PERMANENT	Manufacturer
Steel	STEELAUTHORITY OF INDIA LTD.,	CALCUTTA	India	PERMANENT	Manufacturer
Steel	VANDANA ISPAT LIMITED	RAIPUR	India	PERMANENT	Manufacturer
Steel	KANISHK STEEL INDUSTRIES Ltd.,	CHENNAI	India	PERMANENT	Manufacturer
Steel	MAHAMAYA STEEL INDUSTRIES,	RAIPUR	India	PERMANENT	Manufacturer
Steel	SHRI BAJRANG ALLOYS LTD.	RAIPUR	India	PERMANENT	Manufacturer
Steel	FORTUNE METALIKS LIMITED	RAIPUR	India	PERMANENT	Manufacturer
Steel	VANDANA ISPAT LIMITED	RAIPUR	India	PERMANENT	Manufacturer
Steel	NOBLE TECH INDUSTRIES PVT. LIMITED,	KANCHIPURM	India	PERMANENT	Manufacturer
Steel	GOYAL ENERGY & STEEL PVT LTD	RAIPUR	India	PERMANENT	Manufacturer
Steel	KARAMTARA ENGINEERING PVT LTD	MUMBAI	India	PERMANENT	Manufacturer
Steel	BEEKAY STRUCTURAL STEELS.,	VIZAG	India	PERMANENT	Manufacturer
Steel	SUJANA METAL PRODUCTS LTD,	VIZAG	India	PERMANENT	Manufacturer

Steel	VANDANA ROLLING MILLS LIMITED	RAIPUR	India	PERMANENT	Manufacturer
Steel	MTC BUSINESS PVT LTD	CHENNAI	India	PERMANENT	Manufacturer
Steel	SKS ISPAT & POWER LTD,	DELHI	India	PERMANENT	Manufacturer
Steel	FERROMET STEELS PVT. LTD.	CHENNAI	India	PERMANENT	Manufacturer
Steel	MONNET ISPAT &ENERGY LIMITED	DELHI	India	PERMANENT	Manufacturer
Steel	PRIME ISPAT LIMITED,	RAIPUR	India	PERMANENT	Manufacturer
Steel	TOPWORTH STEEL AND POWER PVT.LTD.,	DURG	India	PERMANENT	Manufacturer
Steel	STEEL AUTHORITY OF INDIA LTD	DURGAPUR	India	PERMANENT	Manufacturer
Steel	RELIABLE SPONGE PVT.LTD.,	ROURKELA	India	PERMANENT	Manufacturer
Steel	JEEVAKA INDUSTRIES PVT LTD	HYDERABAD	India	PERMANENT	Manufacturer
Steel	RASHTRIYA ISPAT NIGAM LIMITED	CHENNAI	India	PERMANENT	Sales Office
Steel	STEELAUTHORITY OF INDIA LTD.,	CALCUTTA	India	PERMANENT	Manufacturer
Steel	NANDAN STEELS & POWER LTD.,	RAIPUR	India	PERMANENT	Manufacturer
Steel	CHENNAI UNITED METAL INDUSTRIES	CHENNAI	India	PERMANENT	Manufacturer
Steel	MAHAVIR STEEL INDUSTRIES LTD.	MUMBAI	India	PERMANENT	Manufacturer
Steel	KHYATI ISPAT LTD	RAIPUR	India	PERMANENT	Manufacturer
Steel	JINDAL STEEL & POWER LIMITED,	CHENNAI	India	PERMANENT	Manufacturer
Steel	K L STEELS (P) LTD,	GAZIABAD	India	PERMANENT	Manufacturer
Steel	PUSHPAK STEEL INDUSTRIES PVT LTD.	PUNE	India	PERMANENT	Manufacturer

Steel	STEEL AUTHORITY OF INDIA LTD	BHILAI	India	PERMANENT	Manufacturer
Steel	CHENNAI UNITED METAL INDUSTRIES	CHENNAI	India	PERMANENT	Manufacturer
Steel	STEEL AUTHORITY OF INDIA LTD	BHILAI	India	PERMANENT	Manufacturer
Steel	KHYATI ISPAT LTD	RAIPUR	India	PERMANENT	Manufacturer
Steel	VANDANA ROLLING MILLS LIMITED	RAIPUR	India	PERMANENT	Manufacturer
Steel	K L STEELS (P) LTD,	GAZIABAD	India	PERMANENT	Manufacturer
Steel	GOYAL ENERGY & STEEL PVT LTD	RAIPUR	India	PERMANENT	Manufacturer
Steel	FORTUNE METALIKS LIMITED	RAIPUR	India	PERMANENT	Manufacturer
Steel	PRIME ISPAT LIMITED,	RAIPUR	India	PERMANENT	Manufacturer
Steel	PUSHPAK STEEL INDUSTRIES PVT LTD.	PUNE	India	PERMANENT	Manufacturer
Steel	NANDAN STEELS & POWER LTD.,	RAIPUR	India	PERMANENT	Manufacturer
Steel	VANDANA ISPAT LIMITED	RAIPUR	India	PERMANENT	Manufacturer
Steel	RASHTRIYA ISPAT NIGAM LIMITED	CHENNAI	India	PERMANENT	Sales Office
Steel	SKS ISPAT & POWER LTD,	DELHI	India	PERMANENT	Manufacturer
Steel	STEEL AUTHORITY OF INDIA LTD	DURGAPUR	India	PERMANENT	Manufacturer
Steel	MONNET ISPAT &ENERGY LIMITED	DELHI	India	PERMANENT	Manufacturer
Steel	JEEVAKA INDUSTRIES PVT LTD	HYDERABAD	India	PERMANENT	Manufacturer
Steel	TOPWORTH STEEL AND POWER PVT.LTD.,	DURG	India	PERMANENT	Manufacturer
Steel	RELIABLE SPONGE PVT.LTD.,	ROURKELA	India	PERMANENT	Manufacturer

Steel	SHRI BAJRANG ALLOYS LTD.	RAIPUR	India	PERMANENT	Manufacturer
Steel	STEELAUTHORITY OF INDIA LTD.,	CALCUTTA	India	PERMANENT	Manufacturer
Steel	KARAMTARA ENGINEERING PVT LTD	MUMBAI	India	PERMANENT	Manufacturer
Steel	BEEKAY STRUCTURAL STEELS.,	VIZAG	India	PERMANENT	Manufacturer
Steel	MAHAVIR STEEL INDUSTRIES LTD.	MUMBAI	India	PERMANENT	Manufacturer
Steel	JINDAL STEEL & POWER LIMITED,	CHENNAI	India	PERMANENT	Manufacturer
Steel	NOBLE TECH INDUSTRIES PVT. LIMITED,	KANCHIPURM	India	PERMANENT	Manufacturer
Steel	KANISHK STEEL INDUSTRIES Ltd.,	CHENNAI	India	PERMANENT	Manufacturer
Steel	MAHAMAYA STEEL INDUSTRIES,	RAIPUR	India	PERMANENT	Manufacturer
Steel	SUJANA METAL PRODUCTS LTD,	VIZAG	India	PERMANENT	Manufacturer
Steel	MTC BUSINESS PVT LTD	CHENNAI	India	PERMANENT	Manufacturer
Steel	KHYATI ISPAT LTD	RAIPUR	India	PERMANENT	Manufacturer
Steel	STEELAUTHORITY OF INDIA LTD.,	CALCUTTA	India	PERMANENT	Manufacturer
Steel	SIAM YAMATO STEEL CO. LTD.		Thailand	PERMANENT	Manufacturer
Steel	JINDAL STEEL & POWER LIMITED,	CHENNAI	India	PERMANENT	Manufacturer
Steel	ARCELOR MITTAL INTERNATIONAL LUXEMB		Germany	PERMANENT	Manufacturer
Steel	MAITHAN ISPAT LTD.	JAIPUR	India	PERMANENT	Manufacturer
Steel	SANGHVI FORGINGS & ENGINEERING LTD	BARODA	India	PERMANENT	Manufacturer
Steel	STAR WIRE(INDIA) LTD	FARIDABAD	India	PERMANENT	Manufacturer

Steel	KUNJ FORGINGS P LTD	GAZIABAD	India	PERMANENT	Manufacturer
Steel	VIKRANT FORGE LIMITED,	CALCUTTA	India	PERMANENT	Manufacturer
Steel	MAHINDRA SANYO SPECIAL STEEL	RAIGARH	India	PERMANENT	Manufacturer
Steel	BHUSHAN POWER & STEEL LIMITED	CHENNAI	India	PERMANENT	Manufacturer
Steel	ASCO INDUSTRIES SAS		France	PERMANENT	Manufacturer
Steel	SUNFLAG IRON & STEEL CO.LTD.,	BHANDARARD	India	PERMANENT	Manufacturer
Steel	STEEL AUTHORITY OF INDIA	CHENNAI	India	PERMANENT	Sales Office
Steel	GORADIA SPECIAL STEELS LTD	KHOPOLI	India	PERMANENT	Manufacturer
Steel	ARCVAC FORGECAST PRIVATE LIMITED,	CALCUTTA	India	PERMANENT	Manufacturer
Steel	ISMT LIMITED,	PUNE	India	PERMANENT	Manufacturer
Steel	STEEL AUTHORITY OF INDIA LTD	TRICHY	India	PERMANENT	Manufacturer
Steel	STAR WIRE(INDIA) LTD	FARIDABAD	India	PERMANENT	Manufacturer
Steel	MAHINDRA SANYO SPECIAL STEEL	RAIGARH	India	PERMANENT	Manufacturer
Steel	ISMT LIMITED,	PUNE	India	PERMANENT	Manufacturer
Steel	ADHUNIK METALIKS LTD.,	SURNDRNAGR	India	PERMANENT	Manufacturer
Steel	RASHTRIYA ISPAT NIGAM LIMITED	CHENNAI	India	PERMANENT	Sales Office
Steel	ARCVAC FORGECAST PRIVATE LIMITED,	CALCUTTA	India	PERMANENT	Manufacturer
Steel	GORADIA SPECIAL STEELS LTD	KHOPOLI	India	PERMANENT	Manufacturer
Steel	SUNFLAG IRON & STEEL CO.LTD.,	BHANDARARD	India	PERMANENT	Manufacturer
Steel	STEEL AUTHORITY OF INDIA	CHENNAI	India	PERMANENT	Sales Office
Steel	BHUSHAN POWER & STEEL LIMITED	CHENNAI	India	PERMANENT	Manufacturer
Steel	R.L.STEELS & ENERGY LTD.,	AURANGABAD	India	PERMANENT	Manufacturer
Steel	KHYATI ISPAT LTD	RAIPUR	India	PERMANENT	Manufacturer
Steel	STEEL AUTHORITY OF INDIA LTD	CHENNAI	India	PERMANENT	Manufacturer
Steel	BRG IRON & STEEL CO. PVT LTD	CALCUTTA	India	PERMANENT	Manufacturer
Steel	JINDAL STAINLESS (HISAR) LIMITED	CHENNAI	India	PERMANENT	Manufacturer
Steel	OUTOKUMPU STAINLESS AB		Sweden	PERMANENT	Manufacturer
Steel	ACRONI.D.O.O,		Slovenia	PERMANENT	Manufacturer

Steel	EVERSHINING INTERNATIONAL LIMITED		China	PERMANENT	Foreign Agent
Steel	JINDAL STAINLESS LIMITED.	JAIPUR	India	PERMANENT	Manufacturer
Steel	LAXCON STEELS LTD	AHMEDABAD	India	PERMANENT	Manufacturer
Steel	CHANDAN STEEL LIMITED,	VALSAD	India	PERMANENT	Manufacturer
Steel	DEUTSCHE EDELSTAHLWERKE GMBH,		Germany	PERMANENT	Manufacturer
Steel	MISHRA DHATU NIGAM LTD.,	HYDERABAD	India	PERMANENT	Manufacturer
Steel	KALYANI CARPENTER SPECIAL STEELS	PUNE	India	PERMANENT	Manufacturer
Steel	TRUST IMPEXS	CHENNAI	India	PERMANENT	Indian Agent
Steel	STAR WIRE(INDIA) LTD	FARIDABAD	India	PERMANENT	Manufacturer
Steel	JSW STEEL LTD.	BELLARY	India	PERMANENT	Manufacturer
Steel	SHYAM STEEL INDUSTRIES LTD	CALCUTTA	India	PERMANENT	Manufacturer
Steel	FORTUNE METALIKS LIMITED	RAIPUR	India	PERMANENT	Manufacturer
Steel	ELECTROSTEEL STEELS LTD.	CALCUTTA	India	PERMANENT	Manufacturer
Steel	SHRI BAJRANG POWER & ISPAT LTD.	RAIPUR	India	PERMANENT	Manufacturer
Steel	ANKIT METAL & POWER LTD.	CALCUTTA	India	PERMANENT	Manufacturer
Steel	TOPWORTH URJA & METALS LTD	NAGPUR	India	PERMANENT	Manufacturer
Steel	STEEL EXCHANGE INDIA LIMITED	VIZAG	India	PERMANENT	Manufacturer
Steel	SHYAM METALICS AND ENERGY LIMITED	CALCUTTA	India	PERMANENT	Manufacturer
Steel	SRMB SRIJAN LIMITED	CALCUTTA	India	PERMANENT	Manufacturer
Steel	KAMACHI SPONGE & POWER	CHENNAI	India	PERMANENT	Manufacturer
Steel	MONNET ISPAT &ENERGY LIMITED	DELHI	India	PERMANENT	Manufacturer

Steel	REAL ISPAT & POWER LTD.	RAIPUR	India	PERMANENT	Manufacturer
Steel	SHIVALI UDYOG (I) LIMITED	RAIPUR	India	PERMANENT	Manufacturer
Steel	MS AGARWAL FOUNDRIES PVT LTD.	HYDERABAD	India	PERMANENT	Manufacturer
Steel	SUJANA METAL PRODUCTS LTD,	VIZAG	India	PERMANENT	Manufacturer
Steel	VANDANA GLOBAL LTD	RAIPUR	India	PERMANENT	Manufacturer
Steel	JINDAL STEEL & POWER LIMITED,	CHENNAI	India	PERMANENT	Manufacturer
Steel	RELIABLE SPONGE PVT.LTD.,	ROURKELA	India	PERMANENT	Manufacturer
Steel	STEEL AUTHORITY OF INDIA LTD	BHILAI	India	PERMANENT	Manufacturer
Steel	STEEL AUTHORITY OF INDIA LTD	DURGAPUR	India	PERMANENT	Manufacturer
Steel	RASHTRIYA ISPAT NIGAM LIMITED	CHENNAI	India	PERMANENT	Sales Office
Steel	KANISHK STEEL INDUSTRIES Ltd.,	CHENNAI	India	PERMANENT	Manufacturer
Steel	RAMA POWER & STEEL PVT LTD	SATNA	India	PERMANENT	Manufacturer
Steel	ANJANI STEELS LIMITED	DELHI	India	PERMANENT	Manufacturer
Steel	BMM ISPAT LTD	CHENNAI	India	PERMANENT	Manufacturer
Tubes	AKSHAR PRECISION TUBES PVT. LTD.,	BARODA	India	PERMANENT	Manufacturer
Tubes	WUXI SHIJIA HEAT ENERGY EQUIPMENT C		China	PERMANENT	Manufacturer
Tubes	SSTP		India	PERMANENT	Manufacturer
Tubes	Bhandari Foils and Tubes Ltd.	AMRITSAR	India	PERMANENT	Manufacturer
Tubes	GAURANG PRODUCTS PVT LTD	DELHI	India	PERMANENT	Manufacturer
Tubes	Bharat Heavy Electricals Limited ,T	AMRITSAR	India	PERMANENT	Manufacturer
Tubes	Tube India	AMRITSAR	India	PERMANENT	Trader
Tubes	Scorodite Stainless India (Pvt.) L	AMRITSAR	India	PERMANENT	Manufacturer

Tubes	INDUSTRIAL METAL CORPORATION.	MUMBAI	India	PERMANENT	Manufacturer
Tubes	JIANGYIN JIEDE METAL MATERIAL		China	PERMANENT	Manufacturer
Tubes	AHMEDABAD STRIPS P. LTD.,	AHMEDABAD	India	PERMANENT	Manufacturer
Tubes	GULDE KALTWALZWERK GMBH & CO.KG		Germany	PERMANENT	Manufacturer
Tubes	SHANGHAI CHANGQIANG POWER CO LTD.		China	TRIAL	Manufacturer
Tubes	TUBE PRODUCTS OF INDIA,	CHENNAI	India	PERMANENT	Manufacturer
Tubes	AHMEDABAD STRIPS P. LTD.,	AHMEDABAD	India	PERMANENT	Manufacturer
Tubes	INNOVENTIVE INDUSTRIES LIMITED,	PUNE	India	PERMANENT	Manufacturer
Tubes	GULDE KALTWALZWERK GMBH & CO.KG		Germany	PERMANENT	Manufacturer
Tubes	OTTO WOLFF HANDELSGESELLSCHAFT MBH		Germany	PERMANENT	Manufacturer
Tubes	APL APOLLO TUBES LIMITED,	DELHI	India	PERMANENT	Manufacturer
Tubes	BHUSHAN POWER & STEEL LIMITED,	CHANDIGARH	India	PERMANENT	Manufacturer
Tubes	TATA STEEL LIMITED.	CHENNAI	India	PERMANENT	Manufacturer
Tubes	ZENITH BIRLA (INDIA) LIMITED	MUMBAI	India	PERMANENT	Manufacturer
Tubes	MKK METAL SECTIONS PVT LTD	RANIPET	India	PERMANENT	Manufacturer
Tubes	NEZONE TUBES LIMITED,	CALCUTTA	India	PERMANENT	Manufacturer
Tubes	CAPARO ENGINEERING INDIA PVT. LTD.,	CHENNAI	India	PERMANENT	Manufacturer
Tubes	P.S.STEEL TUBES LTD, UNIT II	BHILAI	India	PERMANENT	Manufacturer
Tubes	TUBE PRODUCTS OF INDIA,	CHENNAI	India	PERMANENT	Manufacturer
Tubes	SAWARIA PIPES PRIVATE LIMITED,	SECNDRABAD	India	PERMANENT	Manufacturer
Tubes	NAVRATAN PIPE AND PROFILE LTD.,	JAIPUR	India	PERMANENT	Manufacturer
Tubes	RIDDHI STEEL & TUBES (P) LTD	AHMEDABAD	India	PERMANENT	Manufacturer
Tubes	JINDAL PIPES LTD.	GURGAON	India	PERMANENT	Manufacturer
Tubes	CRIMSON METAL ENGINEERING CO.LTD.	CHENNAI	India	PERMANENT	Manufacturer
Tubes	JOTINDRA STEEL & TUBES LTD.	FARIDABAD	India	PERMANENT	Manufacturer
Tubes	SWASTIK PIPES LIMITED,	DELHI	India	PERMANENT	Manufacturer
Tubes	TUBOS REUNIDOS INDUSTRIAL S.L.U.		Spain	PERMANENT	Manufacturer
Tubes	SUMITOMO CORPORATION ASIA & OCEANIA		Singapore	PERMANENT	Foreign Agent
Tubes	BENTELER STEEL / TUBE GmbH		Germany	PERMANENT	Manufacturer

Tubes	SSTP		India	PERMANENT	Manufacturer
Tubes	TENARIS GLOBAL SERVICES,S.A.,		Uruguay	PERMANENT	Foreign Agent
Tubes	SALZGITTER MANESSMANN PRECISION		France	PERMANENT	Manufacturer
Tubes	TENARIS GLOBAL SERVICES,S.A.,		Uruguay	PERMANENT	Foreign Agent
Tubes	JINDAL SAW LTD.,	NASIK	India	PERMANENT	Sales Office
Tubes	HEAVY METALS & TUBES LTD UNIT-III,	MEHASANA	India	TRIAL	Manufacturer
Tubes	METAL ONE CORPORATION,		Japan	PERMANENT	Foreign Agent
Tubes	YANGZHOU LONTRIN STEEL		China	PERMANENT	Manufacturer
Tubes	TUBOS REUNIDOS INDUSTRIAL S.L.U.		Spain	PERMANENT	Manufacturer
Tubes	JIANGXI HONGDU STEEL WORKS CO LTD		China	PERMANENT	Manufacturer
Tubes	CHANGZHOU CHANGBAO PRECISION &		China	PERMANENT	Manufacturer
Tubes	JIANGSU CHENGDE STEEL TUBE SHARE CO		China	PERMANENT	Manufacturer
Tubes	SUMITOMO CORPORATION ASIA & OCEANIA		Singapore	PERMANENT	Foreign Agent
Tubes	VALLOUREC TUBES FRANCE		France	PERMANENT	Manufacturer
Tubes	BENTELER STEEL / TUBE GmbH		Germany	PERMANENT	Manufacturer
Tubes	ISMT LIMITED,	PUNE	India	PERMANENT	Manufacturer
Tubes	BAOSHAN IRON & STEEL CO LTD.		China	PERMANENT	Manufacturer
Tubes	HANGZHOU COGENERATION (HONG KONG)		Hong Kong	TRIAL	Foreign Agent
Tubes	HENGYANG STEEL TUBE GROUP INT'L		China	PERMANENT	Manufacturer
Tubes	BAOSHAN IRON & STEEL CO LTD.		China	PERMANENT	Manufacturer
Tubes	HEAVY METALS & TUBES LTD UNIT-III,	MEHASANA	India	PERMANENT	Manufacturer
Tubes	HANGZHOU COGENERATION (HONG KONG)		Hong Kong	TRIAL	Foreign Agent
Tubes	SSTP		India	PERMANENT	Manufacturer
Tubes	HENGYANG STEEL TUBE GROUP INT'L		China	PERMANENT	Manufacturer
Tubes	MAHARASHTRA SEAMLESS LTD.,	CHENNAI	India	PERMANENT	Manufacturer

Tubes	ROHWERK MAXUTTE GmbH		Germany	TRIAL	Manufacturer
Tubes	SUMITOMO CORPORATION ASIA & OCEANIA		Singapore	PERMANENT	Foreign Agent
Tubes	BENTELER STEEL / TUBE GmbH		Germany	PERMANENT	Manufacturer
Tubes	YANGZHOU LONTRIN STEEL		China	PERMANENT	Manufacturer
Tubes	JIANGSU CHENGDE STEEL TUBE SHARE CO		China	PERMANENT	Manufacturer
Tubes	TENARIS GLOBAL SERVICES,S.A.,		Uruguay	PERMANENT	Foreign Agent
Tubes	CHANGZHOU CHANGBAO PRECISION &		China	PERMANENT	Manufacturer
Tubes	ISMT LIMITED,	PUNE	India	PERMANENT	Manufacturer
Tubes	JINDAL SAW LTD.,	NASIK	India	PERMANENT	Sales Office
Tubes	JIANGXI HONGDU STEEL WORKS CO LTD		China	PERMANENT	Manufacturer
Tubes	TUBOS REUNIDOS INDUSTRIAL S.L.U.		Spain	PERMANENT	Manufacturer
Tubes	VALLOUREC TUBES FRANCE		France	PERMANENT	Manufacturer
Tubes	IL SHIN STEEL INTERNATIONAL CO.,		South Korea	PERMANENT	Foreign Agent
Tubes	HUADI STEEL GROUP CO. LTD.		China	PERMANENT	Manufacturer
Tubes	CHANDAN STEEL LIMITED,	VALSAD	India	PERMANENT	Manufacturer
Tubes	TUBACEX TUBOS INOXIDABLES, S.A		Spain	PERMANENT	Manufacturer
Tubes	METAL ONE CORPORATION,		Japan	PERMANENT	Foreign Agent
Tubes	JIANGSU WUJIN STAINLESS STEEL PIPE		China	PERMANENT	Manufacturer
Tubes	ZHEJIANG JIULI HI-TECH METALS Co. L		China	PERMANENT	Manufacturer
Tubes	SALZGITTER MANESSMANN STAINLESS		Italy	PERMANENT	Manufacturer
Tubes	SUMITOMO CORPORATION ASIA & OCEANIA		Singapore	PERMANENT	Foreign Agent
Tubes	BENTELER STEEL / TUBE GmbH		Germany	PERMANENT	Manufacturer
Tubes	TENARIS GLOBAL SERVICES,S.A.,		Uruguay	PERMANENT	Foreign Agent
Tubes	METAL ONE CORPORATION,		Japan	PERMANENT	Foreign Agent
Tubes	JIANGSU CHENGDE STEEL TUBE SHARE CO		China	PERMANENT	Manufacturer

Tubes	SUMITOMO CORPORATION ASIA & OCEANIA		Singapore	PERMANENT	Foreign Agent
Tubes	YANGZHOU LONTRIN STEEL		China	PERMANENT	Manufacturer
Tubes	VALLOUREC TUBES FRANCE		France	PERMANENT	Manufacturer
Tubes	CHANGZHOU CHANGBAO PRECISION &		China	PERMANENT	Manufacturer
Tubes	TUBOS REUNIDOS INDUSTRIAL S.L.U.		Spain	PERMANENT	Manufacturer
Welding Consumables	KANEMATSU TRADING CORPORATION		Japan	PERMANENT	Foreign Agent
Welding Consumables	ESAB INDIA LTD	CHENNAI	India	PERMANENT	Manufacturer
Welding Consumables	TAPADIA ENGINEERS & TRADERS P.LTD.	RAIPUR	India	PERMANENT	Manufacturer
Welding Consumables	NDT FLUXES.	KUMKARI	India	PERMANENT	Manufacturer
Welding Consumables	TAPADIA ENGINEERS & TRADERS P.LTD.	RAIPUR	India	PERMANENT	Manufacturer
Welding Consumables	LINCOLN ELECTRIC FRANCE S.A.		France	PERMANENT	Manufacturer
Welding Consumables	Ador Welding Limited	DELHI	India	PERMANENT	Manufacturer
Welding Consumables	D&H SECHERON ELECTRODES PVT LTD.	INDORE	India	PERMANENT	Manufacturer
Welding Consumables	D & H INDIA LIMITED	AMRITSAR	India	PERMANENT	Manufacturer
Welding Consumables	ESAB INDIA LTD.	AMRITSAR	India	PERMANENT	Manufacturer
Welding Consumables	HONAVAR ELECTRODES PVT LTD	MUMBAI	India	PERMANENT	Manufacturer
Welding Consumables	MAILAM INDIA LIMITED	PONDICHERY	India	PERMANENT	Manufacturer
Welding Consumables	M/s Modi Arc Electrodes Co.	AMRITSAR	India	PERMANENT	Manufacturer
Welding Consumables	Bharat Heavy Electricals Limited ,T	AMRITSAR	India	PERMANENT	Manufacturer
Welding Consumables	Bharat Heavy Electricals Limited ,T	AMRITSAR	India	PERMANENT	Manufacturer

Welding Consumables	Bharat Heavy Electricals Limited ,T	AMRITSAR	India	PERMANENT	Manufacturer
Welding Consumables	Bharat Heavy Electricals Limited ,T	AMRITSAR	India	PERMANENT	Manufacturer
Welding Consumables	D&H SECHERON ELECTRODES PVT LTD.	INDORE	India	PERMANENT	Manufacturer
Welding Consumables	NOUVEAUX INDUSTRIES (P) LTD.,	TRICHY	India	PERMANENT	Manufacturer
Welding Consumables	ADOR WELDING LIMITED	MUMBAI	India	PERMANENT	Manufacturer
Welding Consumables	ANITA FLUXES ALLOY SPECIALITY	BANGALORE	India	PERMANENT	Manufacturer
Welding Consumables	VOESTALPINE BOHLER WELDING		Germany	PERMANENT	Manufacturer
Welding Consumables	METRODE PRODUCTS LIMITED,		United Kingdom	PERMANENT	Manufacturer
Welding Consumables	VOESTALPINE BOHLER WELDING		Germany	PERMANENT	Manufacturer
Welding Consumables	KANEMATSU TRADING CORPORATION		Japan	PERMANENT	Foreign Agent
Welding Consumables	METRODE PRODUCTS LIMITED,		United Kingdom	PERMANENT	Manufacturer
Welding Consumables	ESAB INDIA LTD	CHENNAI	India	PERMANENT	Manufacturer
Welding Consumables	KANEMATSU TRADING CORPORATION		Japan	PERMANENT	Foreign Agent
Welding Consumables	SPECIAL METALS WELDING PRODUCTS		USA	PERMANENT	Manufacturer
Welding Consumables	KANEMATSU TRADING CORPORATION		Japan	PERMANENT	Foreign Agent
Welding Consumables	SATKUL ENTERPRISES LTD.		India	PERMANENT	Indian Agent
Welding Consumables	METRODE PRODUCTS LIMITED,		United Kingdom	PERMANENT	Manufacturer
Welding Consumables	VOESTALPINE BOHLER WELDING		Germany	PERMANENT	Manufacturer

Welding Consumables	GEE LIMITED,	MUMBAI	India	PERMANENT	Manufacturer
Welding Consumables	D&H SECHERON ELECTRODES PVT LTD.	INDORE	India	PERMANENT	Manufacturer
Welding Consumables	Arya Engineering		India	PERMANENT	Indian Agent
Welding Consumables	KANEMATSU TRADING CORPORATION		Japan	PERMANENT	Foreign Agent
Welding Consumables	METRODE PRODUCTS LIMITED,		United Kingdom	PERMANENT	Manufacturer
Welding Consumables	METRODE PRODUCTS LIMITED,		United Kingdom	PERMANENT	Manufacturer
Welding Consumables	VENUS WIRE INDUSTRIES PVT LTD	MUMBAI	India	PERMANENT	Manufacturer
Welding Consumables	KANEMATSU TRADING CORPORATION		Japan	PERMANENT	Foreign Agent
Welding Consumables	AIR LIQUIDE WELDING FRANCE,		France	PERMANENT	Manufacturer
Welding Consumables	ADOR FONTECH LIMITED,	BANGALORE	India	Development	Manufacturer
Welding Consumables	VOESTALPINE BOHLER WELDING		Germany	PERMANENT	Manufacturer
Welding Consumables	METRODE PRODUCTS LIMITED,		United Kingdom	PERMANENT	Manufacturer
Welding Consumables	KANEMATSU TRADING CORPORATION		Japan	PERMANENT	Foreign Agent
Welding Consumables	AIR LIQUIDE WELDING FRANCE,		France	PERMANENT	Manufacturer
Welding Consumables	AIR LIQUIDE WELDING FRANCE,		France	PERMANENT	Manufacturer
Welding Consumables	VOESTALPINE BOHLER WELDING		Germany	PERMANENT	Manufacturer
Welding Consumables	METRODE PRODUCTS LIMITED,		United Kingdom	PERMANENT	Manufacturer
Welding Consumables	D&H INDIA LIMITED	INDORE	India	PERMANENT	Manufacturer
Welding Consumables	MANTEK WIRES	COIMBATORE	India	PERMANENT	Manufacturer

Welding Consumables	WELD EXCEL INDIA LTD.,	LUDHIANA	India	PERMANENT	Manufacturer
Welding Consumables	ALPHA ARC PVT LTD	GAZIABAD	India	PERMANENT	Manufacturer
Welding Consumables	K.M.CROWN WELDING CONSUMABLES PVT.,	INDORE	India	PERMANENT	Manufacturer
Welding Consumables	SRI DHARAANI STEEL,	SIVAKASI	India	PERMANENT	Manufacturer
Welding Consumables	MODI ARC ELECTRODES CO.	GAZIABAD	India	PERMANENT	Manufacturer
Welding Consumables	ROYAL WELDING WIRES PVT. LTD.,	KANCHIPURM	India	PERMANENT	Manufacturer
Welding Consumables	MURLI ELECTRODE PVT. LTD,	NAGPUR	India	PERMANENT	Manufacturer
Welding Consumables	CALCUTTA ELECTRODES PVT. LTD.,	RAIPUR	India	PERMANENT	Manufacturer
Welding Consumables	JAGSHAAN INDUSTRIES	NAGPUR	India	PERMANENT	Manufacturer
Welding Consumables	RAAJRATNA ELECTRODES LTD	AHMEDABAD	India	PERMANENT	Manufacturer
Welding Consumables	ADOR WELDING LIMITED	MUMBAI	India	PERMANENT	Manufacturer
Welding Consumables	ANAND ARC LTD.,	CHENNAI	India	PERMANENT	Manufacturer
Welding Consumables	ESAB INDIA LTD	CHENNAI	India	PERMANENT	Manufacturer
Welding Consumables	EVERSHINE WIRES	TRICHY	India	PERMANENT	Manufacturer
Welding Consumables	MARUTI WELD PRIVATE LIMITED,	DELHI	India	PERMANENT	Manufacturer
Welding Consumables	NALLI ARC INDUSTRIE,	ERODE	India	PERMANENT	Manufacturer
Welding Consumables	NOUVEAUX INDUSTRIES (P) LTD.,	TRICHY	India	PERMANENT	Manufacturer
Welding Consumables	RASI ELECTRODES LTD.,	CHENNAI	India	PERMANENT	Manufacturer
Welding Consumables	STANDARD WIRE PRODUCTS	CHENNAI	India	PERMANENT	Manufacturer

Welding Consumables	VOLTARC ELECTRODES (P) LTD,	TIRUPATHI	India	PERMANENT	Manufacturer
Welding Consumables	WIRE AND WIRE PRODUCTS	CHENNAI	India	PERMANENT	Manufacturer
Welding Consumables	WELDFAST ELECTRODES PVT LTD,	NAGPUR	India	PERMANENT	Manufacturer
Welding Consumables	KLINWELD WIRES PVT. LTD.,	MUMBAI	India	PERMANENT	Manufacturer
Welding Consumables	NATIONAL ENGINEERING ENTERPRISES,	JAMSHEDPUR	India	PERMANENT	Manufacturer
Welding Consumables	D&H SECHERON ELECTRODES PVT LTD.	INDORE	India	PERMANENT	Manufacturer
Welding Consumables	PRASHANTH CYLINDERS PVT. LTD.,	BANGALORE	India	PERMANENT	Manufacturer
Welding Consumables	PRECISION DRAWEL PVT., LTD.,	NAGPUR	India	PERMANENT	Manufacturer
Welding Consumables	GEE LIMITED,	MUMBAI	India	PERMANENT	Manufacturer
Welding Consumables	CLASSIC ELECTRODES (INDIA) LTD.,	CALCUTTA	India	PERMANENT	Manufacturer
Welding Consumables	MODI HITECH INDIA LTD.,	DELHI	India	PERMANENT	Manufacturer
Welding Consumables	PRECISION WELDARC LTD,	CALCUTTA	India	PERMANENT	Manufacturer
Welding Consumables	ROYAL ARC ELECTRODES LIMITED	MUMBAI	India	PERMANENT	Manufacturer
Welding Consumables	UNIQUE WELDING PRODUCTS PVT.LTD.,	V.VIDNAGAR	India	PERMANENT	Manufacturer
Welding Consumables	M W WIRETECK PVT. LTD.	DELHI	India	PERMANENT	Manufacturer
Welding Consumables	MAILAM INDIA LIMITED	PONDICHERY	India	PERMANENT	Manufacturer
Welding Consumables	WELD ALLOY PRODUCTS,	NOIDA	India	PERMANENT	Manufacturer
Welding Consumables	B&H ELECTRODES PVT. LTD,	CHANDIGARH	India	PERMANENT	Manufacturer
Welding Consumables	ATHARVE WELDING TECHNOLOGIES (INDIA	SHOLAPUR	India	PERMANENT	Manufacturer

Welding Consumables	MAGNARC ELECTRODES PVT.LTD.,	VIZAG	India	PERMANENT	Manufacturer
Welding Consumables	SHAKUNT ENTERPRISES PRIVATE LIMITED	LUDHIANA	India	PERMANENT	Manufacturer
Welding Consumables	VARUN ELECTRODES PVT. LTD.,	PANIPAT	India	PERMANENT	Manufacturer
Welding Consumables	DAYACHAND ENGINEERING INDUSTRIES	MEERUT	India	PERMANENT	Manufacturer
Welding Consumables	VEEPEES INDIA,		India	PERMANENT	Indian Agent
Welding Consumables	KANEMATSU TRADING CORPORATION		Japan	PERMANENT	Foreign Agent
Welding Consumables	VEEPEES INDIA,		India	PERMANENT	Indian Agent
Welding Consumables	SATKUL ENTERPRISES LTD.		India	PERMANENT	Indian Agent
Welding Consumables	METRODE PRODUCTS LIMITED,		United Kingdom	PERMANENT	Manufacturer
Welding Consumables	VOESTALPINE BOHLER WELDING		Germany	PERMANENT	Manufacturer
Welding Consumables	METRODE PRODUCTS LIMITED,		United Kingdom	PERMANENT	Manufacturer
Welding Consumables	KANEMATSU TRADING CORPORATION		Japan	PERMANENT	Foreign Agent
Welding Consumables	VOESTALPINE BOHLER WELDING		Germany	PERMANENT	Manufacturer
Welding Consumables	AIR LIQUIDE WELDING FRANCE,		France	PERMANENT	Manufacturer
Welding Consumables	METRODE PRODUCTS LIMITED,		United Kingdom	PERMANENT	Manufacturer
Welding Consumables	ESAB INDIA LTD	CHENNAI	India	PERMANENT	Manufacturer
Welding Consumables	KANEMATSU TRADING CORPORATION		Japan	PERMANENT	Foreign Agent
Welding Consumables	VOESTALPINE BOHLER WELDING		Germany	PERMANENT	Manufacturer
Welding Consumables	METRODE PRODUCTS LIMITED,		United Kingdom	PERMANENT	Manufacturer

Welding Consumables	VOESTALPINE BOHLER WELDING		Germany	PERMANENT	Manufacturer
Welding Consumables	D&H SECHERON ELECTRODES PVT LTD.	INDORE	India	PERMANENT	Manufacturer
Welding Consumables	ANITA FLUXES ALLOY SPECIALITY	BANGALORE	India	PERMANENT	Manufacturer
Welding Consumables	ADOR WELDING LIMITED	MUMBAI	India	PERMANENT	Manufacturer
Welding Consumables	NOUVEAUX INDUSTRIES (P) LTD.,	TRICHY	India	PERMANENT	Manufacturer
Welding Consumables	D&H INDIA LIMITED	INDORE	India	PERMANENT	Manufacturer
Welding Consumables	RAAJRATNA ELECTRODES LTD	AHMEDABAD	India	PERMANENT	Manufacturer
Welding Consumables	PRECISION WELDARC LTD,	CALCUTTA	India	PERMANENT	Manufacturer
Welding Consumables	K.M.CROWN WELDING CONSUMABLES PVT.,	INDORE	India	PERMANENT	Manufacturer
Welding Consumables	SUN ENTERPRISES	THANJAVUR	India	PERMANENT	Manufacturer
Welding Consumables	ROYAL WELDING WIRES PVT. LTD.,	KANCHIPURM	India	PERMANENT	Manufacturer
Welding Consumables	RUPA INDUSTRIES,	SECNDRABAD	India	PERMANENT	Manufacturer
Welding Consumables	OSCAR AUTO FLUX,	TRICHY	India	PERMANENT	Manufacturer
Welding Consumables	A V WELDTECH PVT.LTD.,	NAGPUR	India	PERMANENT	Manufacturer
Welding Consumables	JAGSHAAN INDUSTRIES	NAGPUR	India	PERMANENT	Manufacturer
Welding Consumables	SUN AUTO WELD INDUSTRIES,	TRICHY	India	PERMANENT	Manufacturer
Welding Consumables	ESAB INDIA LTD	CHENNAI	India	PERMANENT	Manufacturer
Welding Consumables	ANAND ARC LTD.,	CHENNAI	India	PERMANENT	Manufacturer
Welding Consumables	RENUKA FLUXES COMPANY,	SALEM	India	PERMANENT	Manufacturer

Welding Consumables	SUBMER FLUX TECHNOLOGIES,	TRICHY	India	PERMANENT	Manufacturer
Welding Consumables	VOLTARC ELECTRODES (P) LTD,	TIRUPATHI	India	PERMANENT	Manufacturer
Welding Consumables	TAPADIA ENGINEERS & TRADERS P.LTD.	RAIPUR	India	PERMANENT	Manufacturer
Welding Consumables	NOUVEOFLUX CHEMICAL COMPANY	TRICHY	India	PERMANENT	Manufacturer
Welding Consumables	THERMIT ALLOYS (P) LTD,	SHIMOGA	India	PERMANENT	Manufacturer
Welding Consumables	WELMET TECHNOLOGIES PVT. LTD.,	NAGPUR	India	PERMANENT	Manufacturer
Welding Consumables	SUPER WELD PRODUCTS	TRICHY	India	PERMANENT	Manufacturer
Welding Consumables	S.CHEMS & ALLIED PRODUCERS PVT LIMI	MUMBAI	India	PERMANENT	Manufacturer
Welding Consumables	R.M.H.CHEMICAL INDUSTRIES	TRICHY	India	PERMANENT	Manufacturer
Welding Consumables	MANTEK WELDAIDFLUX CO.	TRICHY	India	PERMANENT	Manufacturer
Welding Consumables	LAKSHMI CHEMICAL INDUSTRIES	TRICHY	India	PERMANENT	Manufacturer
Welding Consumables	ADOR WELDING LIMITED	MUMBAI	India	PERMANENT	Manufacturer
Welding Consumables	METRODE PRODUCTS LIMITED,		United Kingdom	PERMANENT	Manufacturer
Welding Consumables	VOESTALPINE BOHLER WELDING		Germany	PERMANENT	Manufacturer
Welding Consumables	KANEMATSU TRADING CORPORATION		Japan	PERMANENT	Foreign Agent
Welding Consumables	AIR LIQUIDE WELDING FRANCE,		France	PERMANENT	Manufacturer
Welding Consumables	NIPPON STEEL & SUMIKIN BUSSAN		Japan	PERMANENT	Channel Partner
Welding Consumables	I.A.BARNES & CO. LTD,		United Kingdom	PERMANENT	Foreign Agent
Welding Consumables	VOESTALPINE BOHLER WELDING		Germany	PERMANENT	Manufacturer

Welding Consumables	KANEMATSU TRADING CORPORATION		Japan	PERMANENT	Foreign Agent
Welding Consumables	METRODE PRODUCTS LIMITED,		United Kingdom	PERMANENT	Manufacturer
Welding Consumables	MARUTHI ELECTRODES (P) LTD.,	BANGALORE	India	PERMANENT	Manufacturer
Welding Consumables	ADOR WELDING LIMITED	MUMBAI	India	PERMANENT	Manufacturer
Welding Consumables	HONAVAR ELECTRODES PVT. LTD.,	MUMBAI	India	PERMANENT	Manufacturer
Welding Consumables	D&H SECHERON ELECTRODES PVT LTD.	INDORE	India	PERMANENT	Manufacturer
Welding Consumables	INDUSTRIA NAZIONALE ELETTRODI S.p.A		Italy	PERMANENT	Manufacturer
Welding Consumables	HONAVAR ELECTRODES PVT. LTD.,	MUMBAI	India	Development	Manufacturer
Welding Consumables	GEE LIMITED,	MUMBAI	India	PERMANENT	Manufacturer
Welding Consumables	ADOR WELDING LIMITED	MUMBAI	India	PERMANENT	Manufacturer
Welding Consumables	METRODE PRODUCTS LIMITED,		United Kingdom	PERMANENT	Manufacturer
Welding Consumables	ESAB INDIA LTD	CHENNAI	India	PERMANENT	Manufacturer
Welding Consumables	I.A.BARNES & CO. LTD,		United Kingdom	PERMANENT	Foreign Agent
Welding Consumables	KANEMATSU TRADING CORPORATION		Japan	PERMANENT	Foreign Agent
Welding Consumables	MARUTHI ELECTRODES (P) LTD.,	BANGALORE	India	PERMANENT	Manufacturer
Welding Consumables	D&H SECHERON ELECTRODES PVT LTD.	INDORE	India	PERMANENT	Manufacturer
Welding Consumables	MARUTHI ELECTRODES (P) LTD.,	BANGALORE	India	PERMANENT	Manufacturer
Welding Consumables	HONAVAR ELECTRODES PVT. LTD.,	MUMBAI	India	Development	Manufacturer
Welding Consumables	KANEMATSU TRADING CORPORATION		Japan	PERMANENT	Foreign Agent

Welding Consumables	VOESTALPINE BOHLER WELDING		Germany	PERMANENT	Manufacturer
Welding Consumables	ADOR WELDING LIMITED	MUMBAI	India	PERMANENT	Manufacturer
Welding Consumables	METRODE PRODUCTS LIMITED,		United Kingdom	PERMANENT	Manufacturer
Welding Consumables	INDUSTRIA NAZIONALE ELETTRODI S.p.A		Italy	PERMANENT	Manufacturer
Welding Consumables	D&H SECHERON ELECTRODES PVT LTD.	INDORE	India	PERMANENT	Manufacturer
Welding Consumables	I.A.BARNES & CO. LTD,		United Kingdom	PERMANENT	Foreign Agent
Welding Consumables	VOESTALPINE BOHLER WELDING		Germany	PERMANENT	Manufacturer
Welding Consumables	KANEMATSU TRADING CORPORATION		Japan	PERMANENT	Foreign Agent
Welding Consumables	METRODE PRODUCTS LIMITED,		United Kingdom	PERMANENT	Manufacturer
Welding Consumables	GEE LIMITED,	MUMBAI	India	PERMANENT	Manufacturer
Welding Consumables	ADOR FONTECH LIMITED,	BANGALORE	India	Development	Manufacturer
Welding Consumables	MARUTHI ELECTRODES (P) LTD.,	BANGALORE	India	PERMANENT	Manufacturer
Welding Consumables	KANEMATSU TRADING CORPORATION		Japan	PERMANENT	Foreign Agent
Welding Consumables	METRODE PRODUCTS LIMITED,		United Kingdom	PERMANENT	Manufacturer
Welding Consumables	ADOR FONTECH LIMITED,	BANGALORE	India	Development	Manufacturer
Welding Consumables	VOESTALPINE BOHLER WELDING		Germany	PERMANENT	Manufacturer
Welding Consumables	KANEMATSU TRADING CORPORATION		Japan	PERMANENT	Foreign Agent
Welding Consumables	METRODE PRODUCTS LIMITED,		United Kingdom	PERMANENT	Manufacturer
Welding Consumables	AIR LIQUIDE WELDING FRANCE,		France	PERMANENT	Manufacturer

Welding Consumables	VOESTALPINE BOHLER WELDING		Germany	PERMANENT	Manufacturer
Welding Consumables	NIPPON STEEL & SUMIKIN BUSSAN		Japan	PERMANENT	Channel Partner
Welding Consumables	METRODE PRODUCTS LIMITED,		United Kingdom	PERMANENT	Manufacturer
Welding Consumables	VOESTALPINE BOHLER WELDING		Germany	PERMANENT	Manufacturer
Welding Consumables	NIPPON STEEL & SUMIKIN BUSSAN		Japan	PERMANENT	Channel Partner
Welding Consumables	VOESTALPINE BOHLER WELDING		Germany	PERMANENT	Manufacturer
Welding Consumables	KANEMATSU TRADING CORPORATION		Japan	Development	Foreign Agent
Welding Consumables	D&H SECHERON ELECTRODES PVT LTD.	INDORE	India	PERMANENT	Manufacturer
Welding Consumables	WELDFAST ELECTRODES PVT LTD,	NAGPUR	India	PERMANENT	Manufacturer
Welding Consumables	MODI ARC ELECTRODES CO.	GAZIABAD	India	PERMANENT	Manufacturer
Welding Consumables	VIJEY ELECTRODES AND WIRES PVT.	CHENNAI	India	PERMANENT	Manufacturer
Welding Consumables	HONAVAR ELECTRODES PVT. LTD.,	MUMBAI	India	PERMANENT	Manufacturer
Welding Consumables	ROYAL ARC ELECTRODES LIMITED	MUMBAI	India	PERMANENT	Manufacturer
Welding Consumables	RAJ KESARI ELECTRODES,	UDAIPUR	India	PERMANENT	Manufacturer
Welding Consumables	MANTEK ELECTRODS PRIVATE LTD,	TRICHY	India	PERMANENT	Manufacturer
Welding Consumables	RAJ KESARI ELECTRODES,	UDAIPUR	India	PERMANENT	Manufacturer
Welding Consumables	MARUTI WELD PRIVATE LIMITED,	DELHI	India	PERMANENT	Manufacturer
Welding Consumables	VIJEY ELECTRODES AND WIRES PVT.	CHENNAI	India	PERMANENT	Manufacturer
Welding Consumables	WELDFAST ELECTRODES PVT LTD,	NAGPUR	India	PERMANENT	Manufacturer

Welding Consumables	D&H SECHERON ELECTRODES PVT LTD.	INDORE	India	PERMANENT	Manufacturer
Welding Consumables	MAILAM INDIA LIMITED	PONDICHERY	India	PERMANENT	Manufacturer
Welding Consumables	HONAVAR ELECTRODES PVT. LTD.,	MUMBAI	India	PERMANENT	Manufacturer
Welding Consumables	MODI HITECH INDIA LTD.,	DELHI	India	PERMANENT	Manufacturer
Welding Consumables	GEE LIMITED,	MUMBAI	India	PERMANENT	Manufacturer
Welding Consumables	ROYAL ARC ELECTRODES LIMITED	MUMBAI	India	Development	Manufacturer
Welding Consumables	MODI ARC ELECTRODES CO.	GAZIABAD	India	PERMANENT	Manufacturer
Welding Consumables	MARUTI WELD PRIVATE LIMITED,	DELHI	India	PERMANENT	Manufacturer
Welding Consumables	MANTEK ELECTRODS PRIVATE LTD,	TRICHY	India	Development	Manufacturer
Welding Consumables	MODI HITECH INDIA LTD.,	DELHI	India	PERMANENT	Manufacturer
Welding Consumables	ROYAL ARC ELECTRODES LIMITED	MUMBAI	India	PERMANENT	Manufacturer
Welding Consumables	WELDFAST ELECTRODES PVT LTD,	NAGPUR	India	PERMANENT	Manufacturer
Welding Consumables	HONAVAR ELECTRODES PVT. LTD.,	MUMBAI	India	PERMANENT	Manufacturer
Welding Consumables	MAILAM INDIA LIMITED	PONDICHERY	India	PERMANENT	Manufacturer
Welding Consumables	VIJEY ELECTRODES AND WIRES PVT.	CHENNAI	India	PERMANENT	Manufacturer
Welding Consumables	MODI ARC ELECTRODES CO.	GAZIABAD	India	PERMANENT	Manufacturer
Welding Consumables	D&H INDIA LIMITED	INDORE	India	PERMANENT	Manufacturer
Welding Consumables	D&H SECHERON ELECTRODES PVT LTD.	INDORE	India	PERMANENT	Manufacturer
Welding Consumables	GEE LIMITED,	MUMBAI	India	PERMANENT	Manufacturer

Welding Consumables	VOESTALPINE BOHLER WELDING		Germany	PERMANENT	Manufacturer
Welding Consumables	AIR LIQUIDE WELDING FRANCE,		France	PERMANENT	Manufacturer
Welding Consumables	METRODE PRODUCTS LIMITED,		United Kingdom	PERMANENT	Manufacturer
Welding Consumables	KANEMATSU TRADING CORPORATION		Japan	PERMANENT	Foreign Agent
Welding Consumables	MAILAM INDIA LIMITED	PONDICHERY	India	Development	Manufacturer
Welding Consumables	VOESTALPINE BOHLER WELDING		Germany	PERMANENT	Manufacturer
Welding Consumables	METRODE PRODUCTS LIMITED,		United Kingdom	PERMANENT	Manufacturer
Welding Consumables	B&H ELECTRODES PVT. LTD,	CHANDIGARH	India	PERMANENT	Manufacturer
Welding Consumables	BALAJI ELECTRODES	COIMBATORE	India	PERMANENT	Manufacturer
Welding Consumables	IDEAL ELECTRODES	COIMBATORE	India	PERMANENT	Manufacturer
Welding Consumables	RUKHMANI ELECTRODES PVT.LTD.,	CALCUTTA	India	PERMANENT	Manufacturer
Welding Consumables	BRIGHT WELD TECHNOLOGIES	COIMBATORE	India	PERMANENT	Manufacturer
Welding Consumables	RAAJRATNA ELECTRODES LTD	AHMEDABAD	India	PERMANENT	Manufacturer
Welding Consumables	SPECTRA SUPER ALLOYS LTD,	JAMSHEDPUR	India	PERMANENT	Manufacturer
Welding Consumables	WELDCOM ELECTRODES PVT.LTD.,	SURAT	India	PERMANENT	Manufacturer
Welding Consumables	MICRO WELD (INDIA)	LUDHIANA	India	PERMANENT	Manufacturer
Welding Consumables	SOLARC WELD RODS,	TRICHY	India	PERMANENT	Manufacturer
Welding Consumables	RASI ELECTRODES LTD.,	CHENNAI	India	PERMANENT	Manufacturer
Welding Consumables	ATHARVE WELDING TECHNOLOGIES (INDIA	SHOLAPUR	India	PERMANENT	Manufacturer

Welding Consumables	GEE LIMITED,	MUMBAI	India	PERMANENT	Manufacturer
Welding Consumables	MAGNARC ELECTRODES PVT.LTD.,	VIZAG	India	PERMANENT	Manufacturer
Welding Consumables	COSMOS ELECTRODES PVT., LTD,	INDORE	India	PERMANENT	Manufacturer
Welding Consumables	MODI HITECH INDIA LTD.,	DELHI	India	PERMANENT	Manufacturer
Welding Consumables	SUPERON SCHWEISSTECHNIK INDIA LTD.,	GURGAON	India	PERMANENT	Manufacturer
Welding Consumables	D&H SECHERON ELECTRODES PVT LTD.	INDORE	India	PERMANENT	Manufacturer
Welding Consumables	WELDALL ELECTRODES (INDIA)	NAGPUR	India	PERMANENT	Manufacturer
Welding Consumables	WELD ALLOY PRODUCTS,	NOIDA	India	PERMANENT	Manufacturer
Welding Consumables	ALPHA FLUX & ELETRODES,	TRICHY	India	PERMANENT	Manufacturer
Welding Consumables	D&H INDIA LIMITED	INDORE	India	PERMANENT	Manufacturer
Welding Consumables	ORION WIRE MANUFACTURING CO.,	BARAUCH	India	PERMANENT	Manufacturer
Welding Consumables	EUREKA SYSTEMS AND ELECTRODES P.LTD	COIMBATORE	India	PERMANENT	Manufacturer
Welding Consumables	ESAB INDIA LTD	CHENNAI	India	PERMANENT	Manufacturer
Welding Consumables	ORANGE ELECTRODES INDUSTRIES,	THANE	India	PERMANENT	Manufacturer
Welding Consumables	WELDCRAFT PRIVATE LIMITED,	BANGALORE	India	PERMANENT	Manufacturer
Welding Consumables	MIGLANI ENGINEERS	HARDWAR	India	PERMANENT	Manufacturer
Welding Consumables	SHIELDARC EQUIPMENTS PVT. LTD,	CALCUTTA	India	PERMANENT	Manufacturer
Welding Consumables	SUN ENTERPRISES	THANJAVUR	India	PERMANENT	Manufacturer
Welding Consumables	AARYA ELECTRODES PVT.LTD.	AGRA	India	PERMANENT	Manufacturer

Welding Consumables	MAILAM INDIA LIMITED	PONDICHERY	India	PERMANENT	Manufacturer
Welding Consumables	ALPHA ARC PVT LTD	GAZIABAD	India	PERMANENT	Manufacturer
Welding Consumables	KOLLIPARA ELECTRODES PVT.LTD.,	KRISHNA	India	PERMANENT	Manufacturer
Welding Consumables	VALENCY COMPOUNDS SERVICES PVT LTD	AHAMDNAGAR	India	PERMANENT	Manufacturer
Welding Consumables	NUCOR WELD(INDIA)PVT.LTD.,	BANGALORE	India	PERMANENT	Manufacturer
Welding Consumables	MARUTHI ELECTRODES (P) LTD.,	BANGALORE	India	PERMANENT	Manufacturer
Welding Consumables	RAJ KESARI ELECTRODES,	UDAIPUR	India	PERMANENT	Manufacturer
Welding Consumables	MEGA WELD TECHNOLOGIES,	COIMBATORE	India	PERMANENT	Manufacturer
Welding Consumables	ABIRAMI ELECTRODES,	COIMBATORE	India	PERMANENT	Manufacturer
Welding Consumables	BAGHERWAL ELECTRODES PVT.LTD.,	INDORE	India	PERMANENT	Manufacturer
Welding Consumables	CALCUTTA ELECTRODES PVT. LTD.,	RAIPUR	India	PERMANENT	Manufacturer
Welding Consumables	VARUN ELECTRODES PVT. LTD.,	PANIPAT	India	PERMANENT	Manufacturer
Welding Consumables	ROYAL ARC ELECTRODES LIMITED	MUMBAI	India	PERMANENT	Manufacturer
Welding Consumables	SRI RENGAS ELECTRODES (P) LTD,	TRICHY	India	PERMANENT	Manufacturer
Welding Consumables	ADOR WELDING LIMITED	MUMBAI	India	PERMANENT	Manufacturer
Welding Consumables	MANTEK ELECTRODS PRIVATE LTD,	TRICHY	India	PERMANENT	Manufacturer
Welding Consumables	MARUTI WELD PRIVATE LIMITED,	DELHI	India	PERMANENT	Manufacturer
Welding Consumables	ELMARC ELECTRODES PVT. LTD.,	CHENNAI	India	PERMANENT	Manufacturer
Welding Consumables	CLASSIC ELECTRODES (INDIA) LTD.,	CALCUTTA	India	PERMANENT	Manufacturer

Welding Consumables	SUNDEEP ELECTRODES PVT. LTD.,	GAZIABAD	India	PERMANENT	Manufacturer
Welding Consumables	HONAVAR ELECTRODES PVT. LTD.,	MUMBAI	India	PERMANENT	Manufacturer
Welding Consumables	MODI ARC ELECTRODES CO.	GAZIABAD	India	PERMANENT	Manufacturer
Welding Consumables	SETH ELECTRODES PVT. LTD.,	DELHI	India	PERMANENT	Manufacturer
Welding Consumables	MALU ELECTRODES PVT.LIMITED	NAGPUR	India	PERMANENT	Manufacturer
Welding Consumables	SRI VARSHA ELECTRODES,	CHENNAI	India	PERMANENT	Manufacturer
Welding Consumables	V.N.C.ELECTRODEES,	KARUR	India	PERMANENT	Manufacturer
Welding Consumables	K.M.CROWN WELDING CONSUMABLES PVT.,	INDORE	India	PERMANENT	Manufacturer
Welding Consumables	NIVETHA ELECTRODES,	TRICHY	India	PERMANENT	Manufacturer
Welding Consumables	P.R.Industries	KOTA	India	PERMANENT	Manufacturer
Welding Consumables	ROYAL WELDING WIRES PVT. LTD.,	KANCHIPURM	India	PERMANENT	Manufacturer
Welding Consumables	FUSION ENGG. PRODUCTS LTD.,	JAMSHEDPUR	India	PERMANENT	Manufacturer
Welding Consumables	ASOKAA ALLOYS	COIMBATORE	India	PERMANENT	Manufacturer
Welding Consumables	WELDFAST ELECTRODES PVT LTD,	NAGPUR	India	PERMANENT	Manufacturer
Welding Consumables	VOLTARC ELECTRODES (P) LTD,	TIRUPATHI	India	PERMANENT	Manufacturer
Welding Consumables	ACCURATE WELDARC PVT LTD	RAIPUR	India	PERMANENT	Manufacturer
Welding Consumables	ANAND ARC LTD.,	CHENNAI	India	PERMANENT	Manufacturer
Welding Consumables	K.M.CROWN WELDING CONSUMABLES PVT.,	INDORE	India	PERMANENT	Manufacturer
Welding Consumables	D&H INDIA LIMITED	INDORE	India	PERMANENT	Manufacturer

Welding Consumables	ADOR WELDING LIMITED	MUMBAI	India	PERMANENT	Manufacturer
Welding Consumables	HONAVAR ELECTRODES PVT. LTD.,	MUMBAI	India	PERMANENT	Manufacturer
Welding Consumables	WELD EXCEL INDIA LTD.,	LUDHIANA	India	PERMANENT	Manufacturer
Welding Consumables	SRI RENGHA ELECTRODES (P) LTD,	TRICHY	India	PERMANENT	Manufacturer
Welding Consumables	MANTEK ELECTRODS PRIVATE LTD,	TRICHY	India	PERMANENT	Manufacturer
Welding Consumables	D&H SECHERON ELECTRODES PVT LTD.	INDORE	India	PERMANENT	Manufacturer
Welding Consumables	MODI ARC ELECTRODES CO.	GAZIABAD	India	PERMANENT	Manufacturer
Welding Consumables	VIJEY ELECTRODES AND WIRES PVT.	CHENNAI	India	Development	Manufacturer
Welding Consumables	ESAB INDIA LTD	CHENNAI	India	PERMANENT	Manufacturer
Welding Consumables	VARUN ELECTRODES PVT. LTD.,	PANIPAT	India	PERMANENT	Manufacturer
Welding Consumables	ROYAL WELDING WIRES PVT. LTD.,	KANCHIPURM	India	PERMANENT	Manufacturer
Welding Consumables	SUNDEEP ELECTRODES PVT. LTD.,	GAZIABAD	India	PERMANENT	Manufacturer
Welding Consumables	AARYA ELECTRODES PVT.LTD.	AGRA	India	PERMANENT	Manufacturer
Welding Consumables	MAILAM INDIA LIMITED	PONDICHERY	India	PERMANENT	Manufacturer
Welding Consumables	MODI HITECH INDIA LTD.,	DELHI	India	PERMANENT	Manufacturer
Welding Consumables	WELDALL ELECTRODES (INDIA)	NAGPUR	India	Development	Manufacturer
Welding Consumables	RAJ KESARI ELECTRODES,	UDAIPUR	India	PERMANENT	Manufacturer
Welding Consumables	RASI ELECTRODES LTD.,	CHENNAI	India	PERMANENT	Manufacturer
Welding Consumables	ROYAL ARC ELECTRODES LIMITED	MUMBAI	India	PERMANENT	Manufacturer

Welding Consumables	WELDFAST ELECTRODES PVT LTD,	NAGPUR	India	PERMANENT	Manufacturer
Welding Consumables	VOLTARC ELECTRODES (P) LTD,	TIRUPATHI	India	PERMANENT	Manufacturer
Welding Consumables	WELD ALLOY PRODUCTS,	NOIDA	India	PERMANENT	Manufacturer
Welding Consumables	THIRUMALA ELECTRODES CO.,	TRICHY	India	PERMANENT	Manufacturer
Welding Consumables	KOLLIPARA ELECTRODES PVT.LTD.,	KRISHNA	India	PERMANENT	Manufacturer
Welding Consumables	MARUTHI ELECTRODES (P) LTD.,	BANGALORE	India	PERMANENT	Manufacturer
Welding Consumables	MALU ELECTRODES PVT.LIMITED	NAGPUR	India	Development	Manufacturer
Welding Consumables	SAITRON ENGINEERS PVT. LTD,	NAGPUR	India	PERMANENT	Manufacturer
Welding Consumables	GEE LIMITED,	MUMBAI	India	PERMANENT	Manufacturer
Welding Consumables	MARUTI WELD PRIVATE LIMITED,	DELHI	India	PERMANENT	Manufacturer
Welding Consumables	B&H ELECTRODES PVT. LTD,	CHANDIGARH	India	PERMANENT	Manufacturer
Welding Consumables	SUPERON SCHWEISSTECHNIK INDIA LTD.,	GURGAON	India	PERMANENT	Manufacturer
Welding Consumables	FUSION ENGG. PRODUCTS LTD.,	JAMSHEDPUR	India	PERMANENT	Manufacturer
Welding Consumables	NUCOR WELD(INDIA)PVT.LTD.,	BANGALORE	India	PERMANENT	Manufacturer
Welding Consumables	COSMOS ELECTRODES PVT., LTD,	INDORE	India	PERMANENT	Manufacturer
Welding Consumables	MAILAM INDIA LIMITED	PONDICHERY	India	PERMANENT	Manufacturer
Welding Consumables	D&H INDIA LIMITED	INDORE	India	PERMANENT	Manufacturer
Welding Consumables	GEE LIMITED,	MUMBAI	India	PERMANENT	Manufacturer
Welding Consumables	ADOR WELDING LIMITED	MUMBAI	India	Development	Manufacturer

Welding Consumables	VIJEY ELECTRODES AND WIRES PVT.	CHENNAI	India	PERMANENT	Manufacturer
Welding Consumables	HONAVAR ELECTRODES PVT. LTD.,	MUMBAI	India	PERMANENT	Manufacturer
Welding Consumables	D&H SECHERON ELECTRODES PVT LTD.	INDORE	India	PERMANENT	Manufacturer
Welding Consumables	MODI ARC ELECTRODES CO.	GAZIABAD	India	PERMANENT	Manufacturer
Welding Consumables	ROYAL ARC ELECTRODES LIMITED	MUMBAI	India	Development	Manufacturer
Welding Consumables	WELDCRAFT PRIVATE LIMITED,	BANGALORE	India	PERMANENT	Manufacturer
Welding Consumables	V.N.C.ELECTRODEES,	KARUR	India	PERMANENT	Manufacturer
Welding Consumables	ROYAL WELDING WIRES PVT. LTD.,	KANCHIPURM	India	PERMANENT	Manufacturer
Welding Consumables	ANAND ARC LTD.,	CHENNAI	India	PERMANENT	Manufacturer
Welding Consumables	WELD ALLOY PRODUCTS,	NOIDA	India	PERMANENT	Manufacturer
Welding Consumables	MANTEK ELECTRODS PRIVATE LTD,	TRICHY	India	PERMANENT	Manufacturer
Welding Consumables	ROYAL ARC ELECTRODES LIMITED	MUMBAI	India	PERMANENT	Manufacturer
Welding Consumables	MARUTI WELD PRIVATE LIMITED,	DELHI	India	PERMANENT	Manufacturer
Welding Consumables	RASI ELECTRODES LTD.,	CHENNAI	India	PERMANENT	Manufacturer

Welding Consumables	GEE LIMITED,	MUMBAI	India	PERMANENT	Manufacturer
Welding Consumables	D&H INDIA LIMITED	INDORE	India	PERMANENT	Manufacturer
Welding Consumables	FUSION ENGG. PRODUCTS LTD.,	JAMSHEDPUR	India	PERMANENT	Manufacturer
Welding Consumables	MODI ARC ELECTRODES CO.	GAZIABAD	India	PERMANENT	Manufacturer
Welding Consumables	MAILAM INDIA LIMITED	PONDICHERY	India	PERMANENT	Manufacturer
Welding Consumables	HONAVAR ELECTRODES PVT. LTD.,	MUMBAI	India	PERMANENT	Manufacturer
Welding Consumables	D&H SECHERON ELECTRODES PVT LTD.	INDORE	India	PERMANENT	Manufacturer
Welding Consumables	ESAB INDIA LTD	CHENNAI	India	PERMANENT	Manufacturer
Welding Consumables	COSMOS ELECTRODES PVT., LTD,	INDORE	India	PERMANENT	Manufacturer
Welding Consumables	MODI HITECH INDIA LTD.,	DELHI	India	PERMANENT	Manufacturer
Welding Consumables	KOLLIPARA ELECTRODES PVT.LTD.,	KRISHNA	India	PERMANENT	Manufacturer
Welding Consumables	NUCOR WELD(INDIA)PVT.LTD.,	BANGALORE	India	PERMANENT	Manufacturer
Welding Consumables	SUPERON SCHWEISSTECHNIK INDIA LTD.,	GURGAON	India	PERMANENT	Manufacturer

Welding Consumables	K.M.CROWN WELDING CONSUMABLES PVT.,	INDORE	India	PERMANENT	Manufacturer
Welding Consumables	VARUN ELECTRODES PVT. LTD.,	PANIPAT	India	PERMANENT	Manufacturer
Welding Consumables	SUNDEEP ELECTRODES PVT. LTD.,	GAZIABAD	India	PERMANENT	Manufacturer
Welding Consumables	WELDFAST ELECTRODES PVT LTD,	NAGPUR	India	PERMANENT	Manufacturer
Welding Consumables	WELD EXCEL INDIA LTD.,	LUDHIANA	India	PERMANENT	Manufacturer
Welding Consumables	THIRUMALA ELECTRODES CO.,	TRICHY	India	PERMANENT	Manufacturer
Welding Consumables	RAJ KESARI ELECTRODES,	UDAIPUR	India	PERMANENT	Manufacturer
Welding Consumables	SRI RENGAL ELECTRODES (P) LTD,	TRICHY	India	PERMANENT	Manufacturer
Welding Consumables	VOLTARC ELECTRODES (P) LTD,	TIRUPATHI	India	PERMANENT	Manufacturer
Welding Consumables	MARUTHI ELECTRODES (P) LTD.,	BANGALORE	India	PERMANENT	Manufacturer
Welding Consumables	MAGNA ENGINEERING	VIJAYAWADA	India	PERMANENT	Manufacturer
Welding Consumables	SAITRON ENGINEERS PVT. LTD,	NAGPUR	India	PERMANENT	Manufacturer
Welding Consumables	ALPHA FLUX & ELETRODES,	TRICHY	India	PERMANENT	Manufacturer

Welding Consumables	CLASSIC ELECTRODES (INDIA) LTD.,	CALCUTTA	India	PERMANENT	Manufacturer
Welding Consumables	MAGNARC ELECTRODES PVT.LTD.,	VIZAG	India	PERMANENT	Manufacturer
Welding Consumables	THE INDIAN SEEL & WIRE PRODUCTS LTD	JAMSHEDPUR	India	PERMANENT	Manufacturer
Welding Consumables	RUKHMANI ELECTRODES PVT.LTD.,	CALCUTTA	India	PERMANENT	Manufacturer
Welding Consumables	RAAJRATNA ELECTRODES LTD	AHMEDABAD	India	PERMANENT	Manufacturer
Welding Consumables	MALU ELECTRODES PVT.LIMITED	NAGPUR	India	PERMANENT	Manufacturer
Welding Consumables	ADOR WELDING LIMITED	MUMBAI	India	PERMANENT	Manufacturer
Welding Consumables	ALPHA ARC PVT LTD	GAZIABAD	India	PERMANENT	Manufacturer
Welding Consumables	EUREKA SYSTEMS AND ELECTRODES P.LTD	COIMBATORE	India	PERMANENT	Manufacturer
Welding Consumables	BAGHERWAL ELECTRODES PVT.LTD.,	INDORE	India	PERMANENT	Manufacturer
Welding Consumables	MURLI ELECTRODE PVT. LTD,	NAGPUR	India	PERMANENT	Manufacturer
Welding Consumables	SPECTRA SUPER ALLOYS LTD,	JAMSHEDPUR	India	PERMANENT	Manufacturer
Welding Consumables	SOLARC WELD RODS,	TRICHY	India	PERMANENT	Manufacturer

Welding Consumables	CALCUTTA ELECTRODES PVT. LTD.,	RAIPUR	India	PERMANENT	Manufacturer
Welding Consumables	VIJEY ELECTRODES AND WIRES PVT.	CHENNAI	India	PERMANENT	Manufacturer
Welding Consumables	TIEN TAI ELECTRODE CO., LTD,		Taiwan	PERMANENT	Manufacturer
Welding Consumables	VEEPEES INDIA,		India	PERMANENT	Indian Agent
Welding Consumables	KANEMATSU TRADING CORPORATION		Japan	PERMANENT	Foreign Agent
Welding Consumables	SATKUL ENTERPRISES LTD.		India	PERMANENT	Indian Agent
Welding Consumables	ROYAL ARC ELECTRODES LIMITED	MUMBAI	India	PERMANENT	Manufacturer
Welding Consumables	HYUNDAI WELDING CO. LTD.,		South Korea	PERMANENT	Manufacturer
Welding Consumables	THE SHANGHAI LINCOLN ELECTRIC		China	PERMANENT	Manufacturer
Welding Consumables	KANEMATSU TRADING CORPORATION		Japan	PERMANENT	Foreign Agent
Welding Consumables	SATKUL ENTERPRISES LTD.		India	PERMANENT	Indian Agent
Welding Consumables	Arya Engineering		India	Development	Indian Agent
Welding Consumables	VOESTALPINE BOHLER WELDING		Germany	PERMANENT	Manufacturer
Welding Consumables	KANEMATSU TRADING CORPORATION		Japan	PERMANENT	Foreign Agent
Welding Consumables	KISWEL LTD.,		South Korea	PERMANENT	Manufacturer
Welding Consumables	SATKUL ENTERPRISES LTD.		India	Development	Indian Agent
Welding Consumables	TIEN TAI ELECTRODE CO., LTD,		Taiwan	PERMANENT	Manufacturer
Welding Consumables	ESAB INDIA LTD	CHENNAI	India	PERMANENT	Manufacturer

Welding Consumables	VEEPEES INDIA,		India	PERMANENT	Indian Agent
Welding Consumables	KANEMATSU TRADING CORPORATION		Japan	PERMANENT	Foreign Agent
Welding Consumables	HYUNDAI WELDING CO. LTD.,		South Korea	PERMANENT	Manufacturer
Welding Consumables	METRODE PRODUCTS LIMITED,		United Kingdom	PERMANENT	Manufacturer
Welding Consumables	SATKUL ENTERPRISES LTD.		India	PERMANENT	Indian Agent
Welding Consumables	TIEN TAI ELECTRODE CO., LTD,		Taiwan	PERMANENT	Manufacturer
Welding Consumables	SATKUL ENTERPRISES LTD.		India	PERMANENT	Indian Agent
Welding Consumables	ESAB INDIA LTD	CHENNAI	India	PERMANENT	Manufacturer
Welding Consumables	TIEN TAI ELECTRODE CO., LTD,		Taiwan	PERMANENT	Manufacturer
Welding Consumables	KANEMATSU TRADING CORPORATION		Japan	PERMANENT	Foreign Agent
Welding Consumables	VEEPEES INDIA,		India	PERMANENT	Indian Agent
Welding Consumables	THE SHANGHAI LINCOLN ELECTRIC		China	PERMANENT	Manufacturer
Welding Consumables	HYUNDAI WELDING CO. LTD.,		South Korea	PERMANENT	Manufacturer
Welding Consumables	KANEMATSU TRADING CORPORATION		Japan	PERMANENT	Foreign Agent
Welding Consumables	VEEPEES INDIA,		India	PERMANENT	Indian Agent
Welding Consumables	TIEN TAI ELECTRODE CO., LTD,		Taiwan	PERMANENT	Manufacturer
Welding Consumables	WEARTECH INTL INC		USA	PERMANENT	Manufacturer
Welding Consumables	GEE LIMITED,	MUMBAI	India	PERMANENT	Manufacturer

Welding Consumables	KENNAMETAL STELLITE		USA	PERMANENT	Manufacturer
Welding Consumables	Arya Engineering		India	Development	Indian Agent
Welding Consumables	MAILAM INDIA LIMITED	PONDICHERY	India	Development	Manufacturer
Welding Consumables	HONAVAR ELECTRODES PVT. LTD.,	MUMBAI	India	PERMANENT	Manufacturer
Welding Consumables	D&H SECHERON ELECTRODES PVT LTD.	INDORE	India	PERMANENT	Manufacturer
Welding Consumables	VOESTALPINE BOHLER WELDING		Germany	PERMANENT	Manufacturer
Welding Consumables	SPECIAL METALS WELDING PRODUCTS		USA	PERMANENT	Manufacturer
Welding Consumables	GEE LIMITED,	MUMBAI	India	PERMANENT	Manufacturer
Welding Consumables	SPECIAL METALS WELDING PRODUCTS		USA	PERMANENT	Manufacturer
Welding Consumables	METRODE PRODUCTS LIMITED,		United Kingdom	PERMANENT	Manufacturer
Welding Consumables	AIR LIQUIDE WELDING FRANCE,		France	PERMANENT	Manufacturer
Welding Consumables	MAILAM INDIA LIMITED	PONDICHERY	India	PERMANENT	Manufacturer
Welding Consumables	D&H SECHERON ELECTRODES PVT LTD.	INDORE	India	PERMANENT	Manufacturer
Welding Consumables	ESAB INDIA LTD	CHENNAI	India	PERMANENT	Manufacturer
Welding Consumables	MODI ARC ELECTRODES CO.	GAZIABAD	India	PERMANENT	Manufacturer
Welding Consumables	D&H SECHERON ELECTRODES PVT LTD.	INDORE	India	PERMANENT	Manufacturer
Welding Consumables	ESAB INDIA LTD	CHENNAI	India	PERMANENT	Manufacturer
Welding Consumables	D&H SECHERON ELECTRODES PVT LTD.	INDORE	India	PERMANENT	Manufacturer
Welding Consumables	ROYAL ARC ELECTRODES LIMITED	MUMBAI	India	Development	Manufacturer

Welding Consumables	ESAB INDIA LTD	CHENNAI	India	PERMANENT	Manufacturer
Welding Consumables	MAILAM INDIA LIMITED	PONDICHERY	India	PERMANENT	Manufacturer
Welding Consumables	HONAVAR ELECTRODES PVT. LTD.,	MUMBAI	India	PERMANENT	Manufacturer
Welding Consumables	MODI ARC ELECTRODES CO.	GAZIABAD	India	PERMANENT	Manufacturer
Welding Consumables	ESAB INDIA LTD	CHENNAI	India	PERMANENT	Manufacturer
Welding Consumables	D&H SECHERON ELECTRODES PVT LTD.	INDORE	India	PERMANENT	Manufacturer
Welding Consumables	ESAB INDIA LTD	CHENNAI	India	PERMANENT	Manufacturer
Welding Consumables	D&H SECHERON ELECTRODES PVT LTD.	INDORE	India	PERMANENT	Manufacturer
Welding Consumables	ROYAL ARC ELECTRODES LIMITED	MUMBAI	India	PERMANENT	Manufacturer
Welding Consumables	D&H SECHERON ELECTRODES PVT LTD.	INDORE	India	PERMANENT	Manufacturer
Welding Consumables	ESAB INDIA LTD	CHENNAI	India	PERMANENT	Manufacturer
Welding Consumables	MODI HITECH INDIA LTD.,	DELHI	India	PERMANENT	Manufacturer
Welding Consumables	GEE LIMITED,	MUMBAI	India	PERMANENT	Manufacturer
Welding Consumables	MARUTI WELD PRIVATE LIMITED,	DELHI	India	PERMANENT	Manufacturer
Welding Consumables	MODI ARC ELECTRODES CO.	GAZIABAD	India	PERMANENT	Manufacturer
Welding Consumables	HONAVAR ELECTRODES PVT. LTD.,	MUMBAI	India	PERMANENT	Manufacturer
Welding Consumables	D&H SECHERON ELECTRODES PVT LTD.	INDORE	India	PERMANENT	Manufacturer
Welding Consumables	ROYAL ARC ELECTRODES LIMITED	MUMBAI	India	Development	Manufacturer
Welding Consumables	ESAB INDIA LTD	CHENNAI	India	PERMANENT	Manufacturer

Welding Consumables	MAILAM INDIA LIMITED	PONDICHERY	India	PERMANENT	Manufacturer
Welding Consumables	VOESTALPINE BOHLER WELDING NORDIC		Sweden	PERMANENT	Manufacturer
Welding Consumables	AB SANDVIK PROCESS SYSTEM,		Sweden	PERMANENT	Manufacturer
Welding Consumables	GEE LIMITED,	MUMBAI	India	PERMANENT	Indian Agent
Welding Consumables	ZIRCAST LTD	BANGALORE	India	PERMANENT	Manufacturer
Welding Consumables	GEE LIMITED,	MUMBAI	India	PERMANENT	Indian Agent
Welding Consumables	WEARTECH INTL INC		USA	PERMANENT	Manufacturer
Welding Consumables	GEE LIMITED,	MUMBAI	India	PERMANENT	Indian Agent
Welding Consumables	WEARTECH INTL INC		USA	PERMANENT	Manufacturer
Welding Consumables	KENNAMETAL STELLITE		USA	PERMANENT	Manufacturer
Welding Consumables	ZIRCAST LTD	BANGALORE	India	PERMANENT	Manufacturer
Welding Consumables	HOGANAS BELGIUM SA		Belgium	PERMANENT	Manufacturer
Welding Consumables	WEARTECH INTL INC		USA	PERMANENT	Manufacturer
Welding Consumables	VOESTALPINE BOHLER WELDING		Germany	PERMANENT	Manufacturer
Welding Consumables	SANWA DIAMOND TOOLS PVT LTD,	MANDIYA	India	PERMANENT	Manufacturer
Welding Consumables	ALCONIX CORPORATION		Japan	PERMANENT	Foreign Agent
Welding Consumables	KENNAMETAL STELLITE		USA	PERMANENT	Manufacturer
Welding Consumables	KENNAMETAL STELLITE		USA	PERMANENT	Manufacturer
Welding Consumables	WEARTECH INTL INC		USA	PERMANENT	Manufacturer

Welding Consumables	HOGANAS BELGIUM SA		Belgium	PERMANENT	Manufacturer
Welding Consumables	K.M.CROWN WELDING CONSUMABLES PVT.,	INDORE	India	PERMANENT	Manufacturer
Welding Consumables	SUN ENTERPRISES	THANJAVUR	India	PERMANENT	Manufacturer
Welding Consumables	RAAJRATNA ELECTRODES LTD	AHMEDABAD	India	PERMANENT	Manufacturer
Welding Consumables	RUPA INDUSTRIES,	SECNDRABAD	India	PERMANENT	Manufacturer
Welding Consumables	D&H INDIA LIMITED	INDORE	India	PERMANENT	Manufacturer
Welding Consumables	MAILAM INDIA LIMITED	PONDICHERY	India	PERMANENT	Manufacturer
Welding Consumables	WELMET TECHNOLOGIES PVT. LTD.,	NAGPUR	India	PERMANENT	Manufacturer
Welding Consumables	D&H SECHERON ELECTRODES PVT LTD.	INDORE	India	PERMANENT	Manufacturer
Welding Consumables	T.M.INDUSTRIES,	RAIPUR	India	PERMANENT	Manufacturer
Welding Consumables	ANAND ARC LTD.,	CHENNAI	India	PERMANENT	Manufacturer
Welding Consumables	VOLTARC ELECTRODES (P) LTD,	TIRUPATHI	India	PERMANENT	Manufacturer
Welding Consumables	RASI ELECTRODES LTD.,	CHENNAI	India	PERMANENT	Manufacturer
Welding Consumables	NOUVEAUX INDUSTRIES (P) LTD.,	TRICHY	India	PERMANENT	Manufacturer
Welding Consumables	WIRE AND WIRE PRODUCTS	CHENNAI	India	PERMANENT	Manufacturer
Welding Consumables	PRECISION WELDARC LTD,	CALCUTTA	India	PERMANENT	Manufacturer
Welding Consumables	NALLI ARC INDUSTRIE,	ERODE	India	PERMANENT	Manufacturer
Welding Consumables	MANTEK WIRES	COIMBATORE	India	PERMANENT	Manufacturer
Welding Consumables	JAGSHAAN INDUSTRIES	NAGPUR	India	PERMANENT	Manufacturer

Welding Consumables	ESAB INDIA LTD	CHENNAI	India	PERMANENT	Manufacturer
Welding Consumables	ADOR WELDING LIMITED	MUMBAI	India	PERMANENT	Manufacturer
Welding Consumables	EVERSHINE WIRES	TRICHY	India	PERMANENT	Manufacturer
Welding Consumables	A V WELDTECH PVT.LTD.,	NAGPUR	India	PERMANENT	Manufacturer
Welding Consumables	SUN WIRES.	TRICHY	India	PERMANENT	Manufacturer
Welding Consumables	VOESTALPINE BOHLER WELDING		Germany	PERMANENT	Manufacturer
Welding Consumables	KANEMATSU TRADING CORPORATION		Japan	PERMANENT	Foreign Agent
Welding Consumables	VEEPEES INDIA,		India	PERMANENT	Indian Agent
Welding Consumables	ESAB INDIA LTD	CHENNAI	India	PERMANENT	Trader
Welding Consumables	KANEMATSU TRADING CORPORATION		Japan	PERMANENT	Foreign Agent
Welding Consumables	ADOR FONTECH LIMITED,	BANGALORE	India	PERMANENT	Manufacturer
Welding Consumables	KISWEL LTD.,		South Korea	PERMANENT	Manufacturer
Welding Consumables	KANEMATSU TRADING CORPORATION		Japan	PERMANENT	Foreign Agent
Welding Consumables	ADOR FONTECH LIMITED,	BANGALORE	India	PERMANENT	Manufacturer
Welding Consumables	KISWEL LTD.,		South Korea	PERMANENT	Manufacturer
Welding Consumables	KANEMATSU TRADING CORPORATION		Japan	PERMANENT	Foreign Agent
Welding Consumables	VOESTALPINE BOHLER WELDING		Germany	PERMANENT	Manufacturer
Welding Consumables	I.A.BARNES & CO. LTD,		United Kingdom	PERMANENT	Foreign Agent
Welding Consumables	VEEPEES INDIA,		India	PERMANENT	Indian Agent

Welding Consumables	LINCOLN ELECTRIC FRANCE S.A.		France	PERMANENT	Manufacturer
Welding Consumables	INDUSTRIA NAZIONALE ELETTRODI S.p.A		Italy	PERMANENT	Manufacturer
Welding Consumables	KANEMATSU TRADING CORPORATION		Japan	PERMANENT	Foreign Agent
Welding Consumables	VOESTALPINE BOHLER WELDING		Germany	PERMANENT	Manufacturer
Welding Consumables	KANEMATSU TRADING CORPORATION		Japan	PERMANENT	Foreign Agent
Welding Consumables	VOESTALPINE BOHLER WELDING		Germany	PERMANENT	Manufacturer
Welding Consumables	ESAB INDIA LTD	CHENNAI	India	PERMANENT	Manufacturer
Welding Consumables	NOUVEAUX INDUSTRIES (P) LTD.,	TRICHY	India	PERMANENT	Manufacturer
Welding Consumables	WIRE AND WIRE PRODUCTS	CHENNAI	India	PERMANENT	Manufacturer
Welding Consumables	MAILAM INDIA LIMITED	PONDICHERY	India	PERMANENT	Manufacturer
Welding Consumables	D&H SECHERON ELECTRODES PVT LTD.	INDORE	India	PERMANENT	Manufacturer
Welding Consumables	ADOR WELDING LIMITED	MUMBAI	India	PERMANENT	Manufacturer
Welding Consumables	ESAB INDIA LTD	CHENNAI	India	PERMANENT	Manufacturer
Welding Consumables	KANEMATSU TRADING CORPORATION		Japan	PERMANENT	Foreign Agent
Welding Consumables	AIR LIQUIDE WELDING FRANCE,		France	PERMANENT	Manufacturer
Welding Consumables	VOESTALPINE BOHLER WELDING		Germany	PERMANENT	Manufacturer
Welding Consumables	METRODE PRODUCTS LIMITED,		United Kingdom	PERMANENT	Manufacturer
Welding Consumables	D&H SECHERON ELECTRODES PVT LTD.	INDORE	India	PERMANENT	Manufacturer
Welding Consumables	GEE LIMITED,	MUMBAI	India	PERMANENT	Manufacturer

Welding Consumables	GEE LIMITED,	MUMBAI	India	PERMANENT	Manufacturer
Welding Consumables	D&H SECHERON ELECTRODES PVT LTD.	INDORE	India	PERMANENT	Manufacturer
Welding Consumables	D&H SECHERON ELECTRODES PVT LTD.	INDORE	India	PERMANENT	Manufacturer
Welding Consumables	ESAB INDIA LTD	CHENNAI	India	PERMANENT	Manufacturer
Welding Consumables	MANTEK ELECTRODS PRIVATE LTD,	TRICHY	India	PERMANENT	Manufacturer
Welding Consumables	ADOR WELDING LIMITED	MUMBAI	India	PERMANENT	Manufacturer
Welding Consumables	MAILAM INDIA LIMITED	PONDICHERY	India	PERMANENT	Manufacturer
Welding Consumables	NOUVEAUX INDUSTRIES (P) LTD.,	TRICHY	India	PERMANENT	Manufacturer
Welding Consumables	WELMET TECHNOLOGIES PVT. LTD.,	NAGPUR	India	PERMANENT	Manufacturer
Welding Consumables	KANEMATSU TRADING CORPORATION		Japan	PERMANENT	Foreign Agent
Welding Consumables	JAGSHAAN INDUSTRIES	NAGPUR	India	PERMANENT	Manufacturer
Welding Consumables	NALLI ARC INDUSTRIE,	ERODE	India	PERMANENT	Manufacturer
Welding Consumables	WIRE AND WIRE PRODUCTS	CHENNAI	India	PERMANENT	Manufacturer
Welding Consumables	VOESTALPINE BOHLER WELDING		Germany	PERMANENT	Manufacturer
Welding Consumables	K.M.CROWN WELDING CONSUMABLES PVT.,	INDORE	India	PERMANENT	Manufacturer

SECTION IX:

QUALITY WORK INSTRUCTIONS & QUALITY DOCUMENTS

**The bidders are advised to follow BHEL quality standards and procedures.
The sample / typical standard quality plans for Basket frames are listed below:**

CATEGORY	STANDARD QUALITY PLAN (SQP) Latest revision	QUALITY CONTROL PROCEDURE (QCP) Latest revision	STANDARD INSPECTION PROCEDURE (SIP) latest revision	RAW MATERIAL TDC Latest revision	PRQA	REFERENCE QUALITY PLAN	SPECIAL PAINTING SCHEME
Basket frames fabrication	SQP:APH:107	NA	NA	TDC:RTA:407	PRQA:590		NA



Ranipet

QUALITY ASSURANCE
M/S BHEL / BAP / RANIPET
TAMIL NADU-632 406

STANDARD QUALITY PLAN
ITEM/SUBSYSTEM:
**Heating Element Basket
Assembly**

Doc. No SQP :APH : 107
Rev No 00
Date 18 10 02
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SL NO	COMPONENT & OPERATION	CHARACTERISTICS	TYPE OF CHECK	QUANTUM OF CHECK	REFERENCE DOCUMENTS	ACCEPTANCE NORMS	FORMAT OF RECORDS	AGENCY Y M B	REMARKS
1.0	RAW MATERIAL Sheets /Coil IS 513GrDD CORTEN A (or) EQUIVALENT Flats, plates & Rods to IS 2062 or Corten A	Chemical and Mechanical Properties	Chemical & Mechanical	As per TDC/ melt wise	Respective specification	Material	TC	P V	Material are taken to stock after verification of TC
2.0	In Process Control	WELDERS ARE QUALIFIED TO AWS D1.1 and PROCEDURES ARE PRE QUALIFIED.							
2.1	Welding								
2.1.1	Weld Quality	Weld finish & size	Visual	100%	Refer note 1.0 to 1.4		Records	P W	10 % Random surveillance check by QC
2.2	Basket Dimension	Measurement	Go/No go check	10%	Refer note 2.0 to 2.3.3		Records	P W	and 100 % by Task Performer
2.3	Identification & preservation	Proper Preservation identification &	Visual	100%	Refer note 3.0 to 6.0		---	P W	(Sub Contractor)

LEGENDS:

M - MANUFACTURER / SUBCONTRACTOR , B - BHEL
P - PERFORM , V - VERIFICATION,
W - WITNESS , T C - TEST CERTIFICATE
DR - DIMENSIONAL REPORT.

Prepared By *San V*
Reviewed By QA *B. Srinivasulu*
QC *Murugan*
OP & C *Sridharan*

APPROVED BY : *H. H. H.*
(Head QA)

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Sl NO	COMPONENT & OPERATION	CHARACTERISTICS	TYPE OF CHECK	QUANTUM OF CHECK	REFERENCE DOCUMENT S	ACCEPTAN CE NORMS	FORMAT OF RECORDS	AGENCY		REMARKS
								M	B	
1	2	3	4	5	6	7	8 ⁹	9		
3.0	Basket Assembly (With Elements)									
3.1	Elements	No. of pairs	Verification of No. of Pairs	100% (See Remarks)	As per drawing / contract / PO Ref. Note 7.0 & 8.0		Record	P	W	10% Random surveillance check by QC and 100% by task performers
4.0	Basket assembly	1 Dimensional measurement	Go gauge / Visual	100%	As per drawing / contract / & Note 9 & 10)		Record	P	W	
		2 Weight	Measurement	Random	-Do-		Record	P	W	
		3 weld Quality	Visual	100 %	(Ref. Note 1.1, & 1.2)		--	P	W	
5.0	Final inspection									
5.1	Identification & preservation	Proper preservation & identification	Visual	100 %	(Ref notes 5.0 , 6.0 & 11.0 12.0)		--	P	W	

1.0 Welding

- 1.1 All welds shall be examined visually for defects like cracks, crater, and fillet size shall be checked with fillet gauges.
- 1.2 For Carbon steels E6013 electrodes can be used for all welding in baskets where thickness of the items is ≤ 20 mm and for thickness above 20 mm E7018 electrodes only shall be used. For other material respective WPS to be followed for selection of electrode.
- 1.3 Fabricator shall use suitable fixture for assembly and welding to ensure dimensional stability of baskets. Proper welding sequence to be adopted to avoid / to minimize distortion. Distortion if any is to be corrected to meet drawing requirement
- 1.4 All the bends in the sheet metal are to be free from cracks on the line of bend at the ends to avoid cracking. Bending shall be done perpendicular to the rolling direction (rolling direction is along the length of the sheet).

2.0 Inspection Tolerance

- 2.1 Ensure following for material preparation & fabrication. The width of flats shall be within ± 1 mm. Inside gap between holding bars shall be with in -0 to $+1$ mm of inside dimension given in drawing.
- 2.2 Dimensions are to be checked by gauge and recorded at top, middle & bottom.
- 2.3 Full fabricated baskets are to be checked with go and no go gauges. The dimensions of gauge is as follows:
 - 2.3.1 For 'go gauge' the dimensions shall be -2 to -3 mm of nominal dimensions of the baskets.
 - 2.3.2 For 'no go gauge' the dimensions shall be $+0$ to -1 mm of nominal dimensions of the baskets.
 - 2.3.3 Go and No go gauges shall be identified by punching / paint stenciling of the drawing number of the corresponding basket.
- 3.0 Cleaning**
 - 3.1 All baskets shall be thoroughly cleaned of weld slag, spatters, and rust before painting.
- 4.0 Painting**
 - 4.1 The cleaned basket shall be painted as per PRQA : 590 latest revision.

5.0 Identification

Stenciling shall be carried out outside of the basket face and outside of the cover so that the identification is visible even after filling the element. The baskets are to be identified with following details:

- | | | | |
|----|---|----|-------------------------------------|
| a) | WO No. | d) | Sub-contractor code : as applicable |
| b) | Drawing No. | e) | IR No.: as applicable |
| c) | Type of baskets (to be punched (punch size 12) & stenciled) | | |

6.0 Transportation

6.1 Finished baskets shall be transported to BHEL carefully to avoid any damages.

7.0 ELEMENTS shall be made from coils of the specified width and thickness.

8.0 No. of pairs of the elements shall be in line with the drawing / PO requirements.

9.0 The finished basket shall be inspected with go and no go gauges, the tolerance for the 'go gauges' shall be - 0 to + 1 mm of nominal size of the baskets. Baskets do not answer to the gauge shall not be accepted.

9.1 Gauge shall be inserted to the baskets at both ends to a length of 50 mm.

10.0 Wt of Basket Assembly shall be -2% to +8% of the GMS weight (or) As per P O Specification

11.0 Preservation

11.1 The basket assembly shall be dipped in rust preventive fluid. Refer PRQA 590 Latest. It shall be ensured that heating elements are completely coated with rust preventive oil. Take out the baskets and allow sufficient drain time.

11.2 Visually check to see uniform rust preventive coating in all heating element area.

12.0 Packing (for heating elements which are sent to site as separate DU)

12.1 The basket assembly shall be packed in wood / steel crates as per packing plan.

12.2 If wooden box are used for packing, ensure the following:

- The box shall be made without any gap in any side and shall be lined on the inside with polythene bonded Hessian cloth.
- Silica gel packets shall be placed inside in the every container.
- After nailing down the top cover, the corner shall be closed by polythene bonded Hessian cloth.
- The baskets shall be placed inside the wooden box and supported from all sides to avoid movement by providing wooden logs.

12.3 Steel crates are used for packing, the above points are not applicable except silica gel packets inside the every container.

	Technical Delivery Condition For Carbon steel Plates	Doc Ref:	TDC:RTA:407
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1.0 Scope

- 1.1 This TDC specifies the requirements for supply of Plates to material specification ASTM A515 Gr.65./Gr70

2.0 Chemical & Mechanical Properties:

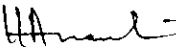
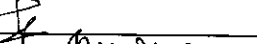
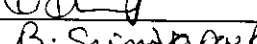
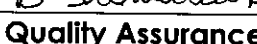
- 2.1 These shall be as per specification.

3.0 Supply Condition

- 3.1 If the plates are supplied in gas cut condition, plate thickness above 50mm shall be preheated to 100deg.C before gas cutting.
- 3.2 Repair by fusion welding is prohibited.
- 3.3 The out of flatness shall be within 5mm/meter.
- 3.4 The steel shall be fully killed.

4.0 Non destructive Testing & Acceptance

- 4.1 All the plates shall be ultrasonically tested and accepted as per ASTM 435.

Prepared by 	Reviewed by	Signature	Approved by  (Head/QA)
	Engg(APH)		
	Purchase		
	MPL		
	QC/proc.		
	QA		
Issued by Quality Assurance			

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5.0 Marking

5.1 Each plate shall be hard stamped and bordered with white paint with the following information:

- | | |
|--------------------|---------------------------|
| a. P O No.& Date | c. Specification |
| b. Size & Quantity | d. Melt number |
| | e. Maker's identification |

6.0 Test Certificates

6.1 TC shall be in English and it shall contain

- | | |
|-------------------------------|---|
| a. PO No. & Date | f. Chemical composition-
melt wise |
| b. TDC Number | g. Mechanical properties-
melt wise |
| c. Specification & Grade | h. Ultrasonic Test Report-HT
batchwise |
| d. Drawing no (If applicable) | |
| e. Number & weight | |

7.0 BHEL reserves the right to carry out tests and reject the items wherever non conformance to the contract is noticed.

Rev.No	Date	Changes made
00	26 02 02	TDC RTA 007 /REV 02 is revised and renumbered as TDC RTA 407/REV 00
01	10 05 02	TDC totally reviewed and revised