



**BHARAT HEAVY ELECTRICALS LIMITED**

CORPORATE RESEARCH & DEVELOPMENT DIVISION

VIKASNAGAR, HYDERABAD - 500 093, INDIA

PHONES: 23774494 (EXCHANGE)

DIRECT: 23882104/23882204/  
23778474/23776772

FAX : 91 40 23770698

RD:DP:MPX:F-04

## ENQUIRY

To - Enquiry No: 350805581 Enq Date: 22-DEC-08 Due Date: 15-JAN-09 Delivery By:

Pin -

Email :

Attn .

PLEASE SUBMIT YOUR QUOTATION IN SEALED COVER SUPERSCRIBED WITH ENQUIRY NO, ENQUIRY DATE AND DUE DATE SUBJECT TO OUR TERMS AND CONDITIONS ENCLOSED, FOR THE FOLLOWING MATERIALS SO AS TO REACH US ON OR BEFORE THE DUE DATE BY 12 NOON. THE TENDERS WILL BE OPENED AT 2 PM ON THE SAME DAY

PLEASE GIVE REFERENCE OF ENQ NUMBER , ENQ .DATE AND DUE DATE IN ALL YOUR CORRESPONDENCE FOR PROMPT ACTION. IN CASE IF YOU ARE NOT MAKING THE OFFER PLEASE POST A REGRET LETTER AND RETURN THE DOCUMENTS.

| SL NO | DESCRIPTION / SPECIFICATION   | UNIT | QTY |
|-------|---|------|-----|
| 1     | SA HOUSING AS PER ENCLOSED SPECIFICATIONS AND DRAWINGS.<br>MATERIAL : SS-304L | NO   | 9   |

Please submit your offer in Two parts as per enclosed "General Terms and Conditions of enquiry & Contract for the purchase of Goods/ Services" in separate sealed covers as detailed below:

- 1) First cover shall contain a) Technical & Commercial bid, b) Compliance Statement, c) Un-priced Price bid, i.e. a copy of the Price bid with the price(s) columns left blank.
- 2) Second Cover containing Price bid.

If the Price bid is found to be different from the un-Priced Price bid in any way, the offer will be rejected.

Note:

- 1) Unsigned offer(s) are liable for rejection.
- 2) Taxes & Duties quoted will be taken for cost evaluation & order placement and no change will be entertained later except in the case of changes made by the Government.
- 3) Changes in Taxes and Duties because of the changes in Turnover etc. will be to the supplier's account.
- 4) In case any Taxes/duties exempted, a self declaration for the same may be attached to the offer.

AS WE ARE ENGAGED IN R&D ACTIVITY "C" FORM WILL NOT BE ISSUED

Yours faithfully  
for

BHARAT HEAVY ELECTRICALS LTD

PLEASE FILL UP THE ENCLOSED VENDOR REGISTRATION FORM AND SEND IT ALONG WITH YOUR QUOTATION. OTHERWISE YOUR QUOTATION WILL NOT BE CONSIDERED. (IGNORE THIS IF YOU HAVE ALREADY SUBMITTED THIS FORM)

MS JEEVAN JYOTI GS  
Sr Manager

**Email: jeevan@bhelrnd.co.in**

|          |  |         |               |
|----------|--|---------|---------------|
| PSGSG108 | <b>Process Specifications<br/>for<br/>SA Housing</b> | Drg.No. | RD 99 320 000 |
|          |  | Date    | 15.11.08      |
|          |  | Product | GSM-145       |

**1.0 APPLICATION:**

SA housing (drg No. RD 99 320 000) is an enclosure for a gas insulated switchgear equipment. The gas pressure in this metal enclosure is maintained at 0.55 MPa. This leak tight assembly shall meet following specification.

**2.0 SPECIFICATIONS:**

**2.1 Material :** Low Carbon Austenetic stainless steel confirming to AISI-304 .

**2.2** Standard seamless or ERW (straight/ spiral) tubular sections shall be used for construction, where ever applicable in design. Fabricated / drawn sections can be used for other areas not confirming to standard pipe schedules.

4 No. of BRACKETS @ 90° WITH 185.0x270.0 PCU

SECTION A-A'

SECTION B-B'

|    |                 |       |
|----|-----------------|-------|
| 02 | TOP PLATE ASSY. | RD 99 |
| 01 | ENCLOSURE ASSY. | RD 99 |

|             |               |           |
|-------------|---------------|-----------|
| Page<br>1/4 | PSGSG-108.doc | Signature |
|-------------|---------------|-----------|

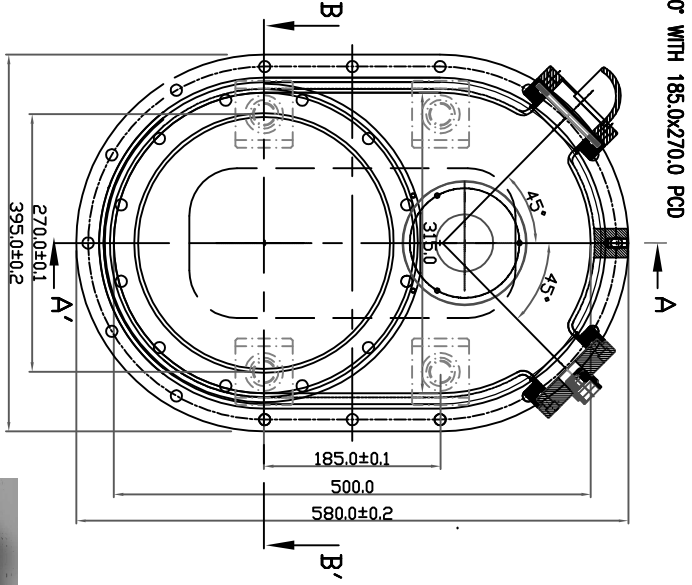
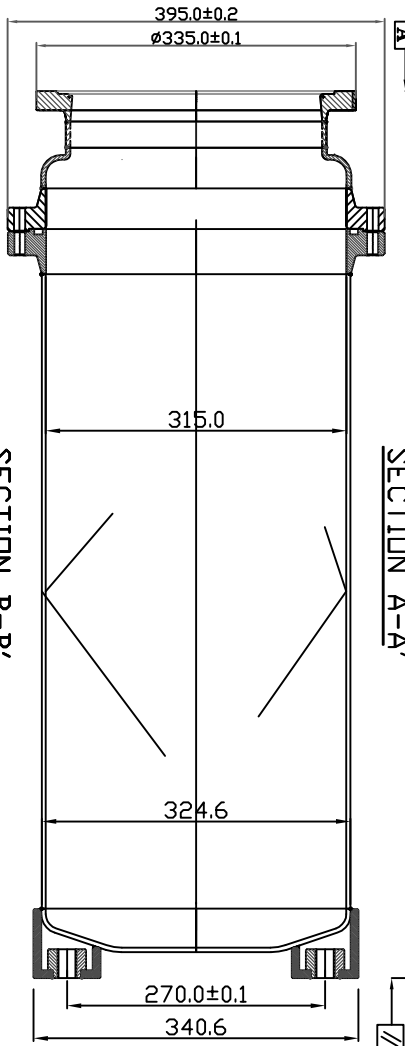
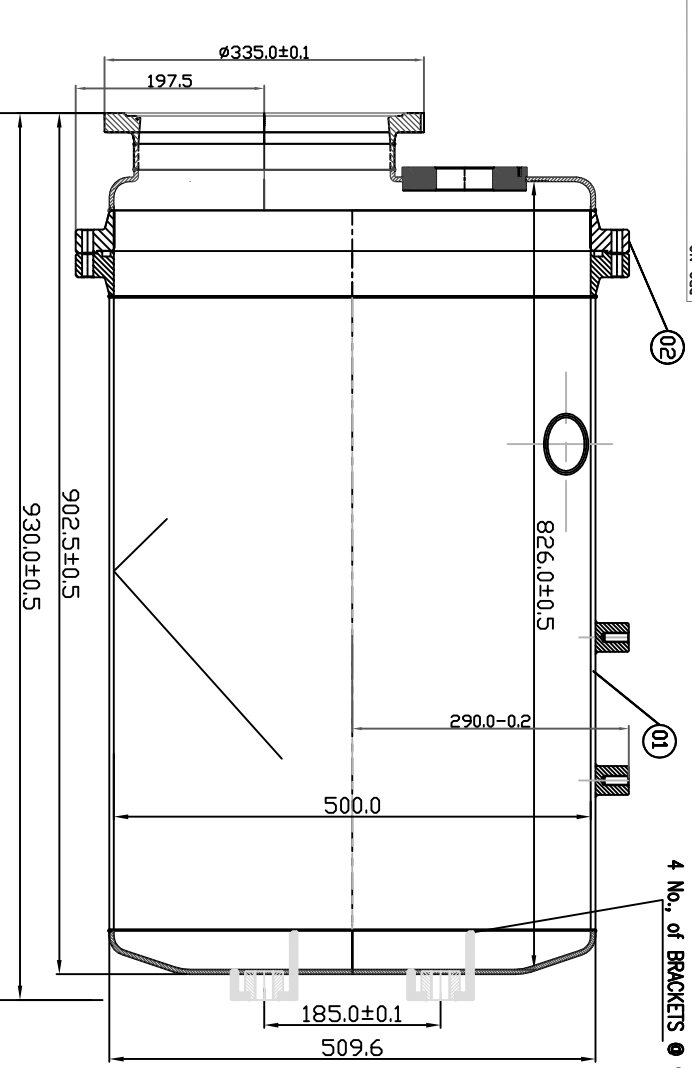
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|---------------------|--|------------------|---------------|
| PSGSG108            | <b>Process Specifications<br/>for<br/>SA Housing</b>   | Drg.No.          | RD 99 320 000 |
|                     |  | Date             | 15.11.08      |
|                     |  |                  |               |
|                     |  | Product          | GSM-145       |
| <b>2.3</b>          | Drawn profiles, to size, only shall be used for direct welding with the flanges. No smithy is allowed for formation/ matching of profiles in view of defect inception. Pipe and flanges shall be TIG / MIG welded with suitable SS electrode.  |                  |               |
| <b>2.4</b>          | The welded sections shall be sized as per drawing and verified /tested using Dye Penetration (D.P.) technique or x-ray at all stages of welding. Inside edges/weld shall be fused to obtain near smooth weld surface.  |                  |               |
| <b>2.5</b>          | The flanges shall be manufactured to drawings and welded as per instructions to the shells maintaining parallelism of faces and perpendicularity as prescribed. The flange sealing surfaces shall be polished to RA 0.8 or better and the bolting holes shall be machined fine, using jig borer/ CNC milling, and shall have uniform chamfer. The tolerances, wherever not mentioned in the drawing, shall be within 0.1°. Any sharp corners shall be removed as per the drawing. Wherever not specified in the drawing, a chamfer of 0.5x45° shall be provided at the sharp corners and edges |                  |               |
| <b>2.6</b>          | The top and bottom flanges shall be welded co-axial in the limits of manufacturing drawing.  |                  |               |
| <b>2.7</b>          | Weld splatter, if any, shall be removed by chipping or grinding on completion of the weld.   |                  |               |
| <b>2.8</b>          | Dye penetration report shall be generated and submitted to BHEL.   |                  |               |
| <b>2.9</b>          | The tested assembly should be cleaned, degreased and prepared for pressure test. The assembly shall be tested at 0.85 bar pressure for 4 hours and pressure drop shall be recorded and communicated to BHEL. In case of  |                  |               |
| <b>Page<br/>2/4</b> | <b>PSGSG-108.doc</b>   | <b>Signature</b> |               |

|                     |  |         |               |
|---------------------|--|---------|---------------|
| PSGSG108            | <b>Process Specifications<br/>for<br/>SA Housing</b>   | Drg.No. | RD 99 320 000 |
|                     |  | Date    | 15.11.08      |
|                     |  |         |               |
|                     |  | Product | GSM-145       |
|                     | <p>pressure drop a course leak check shall be performed. The leak shall be rectified and the test repeated to satisfaction. Components indicating drop in pressure during this test will not be accepted. The arrangement shall be kept at 11 bar for 15 minutes prior to this test to verify pressure withstanding capabilities specified in drawing.</p> <p><b>2.10</b> Component shall be electro chemical polished on the inside surface. Supplier shall be preferably equipped with this facility and executed similar jobs in the past.</p> <p><b>2.11</b> The assemblies further shall be sandblasted on the outer surface and powder coated (&gt; 50 Micron) to shade as specified on drawing. During this operation all flanges shall be masked at the sealing surfaces and at the rim.</p> <p><b>2.12</b> The dimensional checks and the leak test shall be carried out in presence of BHEL inspector. It is preferable to have first stage inspection after assembling the first module at supplier's works.</p> <p><b>2.13</b> The accepted component shall be packed in wooden boxes with suitable covers on the flanges to prevent transit damages. A thick polyethylene cover shall be used to seal to component from ingress of moisture and water. For transit time higher than a week, adequate quantity of moisture absorbent shall also be placed with the component.</p> <p><b>2.14</b> Following certificates shall be furnished for acceptance of the component:</p> <p>2.15.1 Material source certificate,<br/> 2.15.2 Material test certificate ,<br/> 2.15.3 Stage wise DP / X-ray tests<br/> 2.15.4 Pressure drop test and pressure withstand test report</p> |         |               |
| <b>Page<br/>3/4</b> | PSGSG-108.doc  |         | Signature     |

|                       |  |         |               |
|-----------------------|--|---------|---------------|
| PSGSG108              | <b>Process Specifications<br/>for<br/>SA Housing</b>   | Drg.No. | RD 99 320 000 |
|                       |  | Date    | 15.11.08      |
|                       |  |         |               |
|                       |  | Product | GSM-145       |
|                       | <p>2.15.5 Electro-polishing schedule</p> <p>A certified copy of above documents shall be sent along with the delivery note.</p> <p><b>2.15</b> Components / fittings required for pressure test shall be arranged by supplier only.</p> <p><b>2.16</b> <b>Qualifying Requirements:</b></p> <p>The supplier shall be of International repute with proven record and should have supplied similar enclosures. The supplier must submit along with the technical bid the references of supplies made so far.</p> <p><b>2.17</b> <b>Performance Guarantee :</b></p> <p>Supplier shall provide Guarantee certificate for the equipment to ensure reliability of the equipment for a period of not less than 12 months from the date of dispatch.</p> <p><b>2.18</b> <b>Any Other information:</b></p> <p>In case of doubts please contact BHEL for clarifications. Supplier can furnish any other/additional information, considering overall requirements.</p> |         |               |
| <b>Page<br/>4 / 4</b> | PSGSG-108.doc  |         | Signature     |

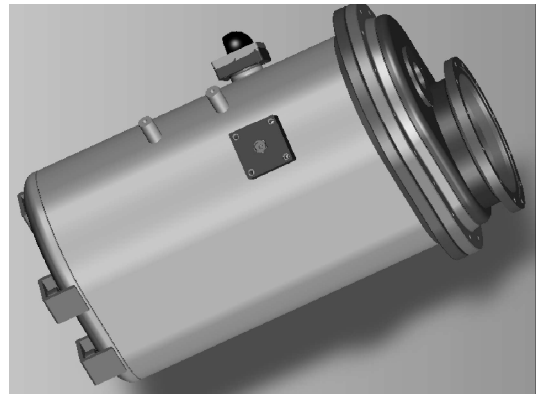
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|               |                |               |
|---------------|----------------|---------------|
| INVENTORY NO. | SIGN. AND DATE | REF. DRG. NO. |
|---------------|----------------|---------------|



4 No. of BRACKETS @ 90° WITH 185.0x270.0 PCD

- NOTE:**
1. PIPE AND FLANGE TO BE TIG / MIG WELDING WITH SUITABLE SS ELECTRODE
  2. THE ROOT SHOULD BE HOMOGENEOUS AND CONTINUOUS (FULL WELDING).
  3. THE ASSY. TO BE LEAK TESTED USING WSLD WITH HELIUM TO 10E-8 TLS - 1
  4. PRESSURE TEST AT 11.0 BAR FOR 15 MINUTS (AIR/N<sub>2</sub>)
  5. TESTED ASSEMBLIES TO BE DEGREASED.
  6. SAND BLASTED AND POWDER COATED ON OUTSIDE.
  7. SUPPORT BRACKETS SHALL BE WELDED TO ENCLOSURE ASSY.



| VAR. NO. | REMARKS         | VAR. ITEM NO. | DESCRIPTION | REV. | DRAWING NO.   | ITND. | MATL. CODE | MATL. SPECN. | A | UNIT | QTY. | REV. |
|----------|-----------------|---------------|-------------|------|---------------|-------|------------|--------------|---|------|------|------|
| 02       | TOP PLATE ASSY. |               |             |      | RD 99 320 300 |       | SS-304 L   |              |   |      | 01   |      |
| 01       | ENCLOSURE ASSY. |               |             |      | RD 99 320 200 |       | SS-304 L   |              |   |      | 01   |      |

TYPE OF PRODUCT: **GSM-145**

NAME OF CUSTOMER: **BHARAT HEAVY ELECTRICALS LTD. HYDERABAD**

DEPT (GSO) GRADE OF TOL. DIM. C/M/F: **CODE 35**

SCALE: **NTS**

WEIGHT(KG):

DRN: **RD 99 320 000**

KS NO: **01.02.02**

MM NO: **01.02.02**

HS MIN: **01.02.02**

REF. TO: **RD 99 320 000**

DATE: **01.02.02**

CARD CODE: **RD 99 320 000**

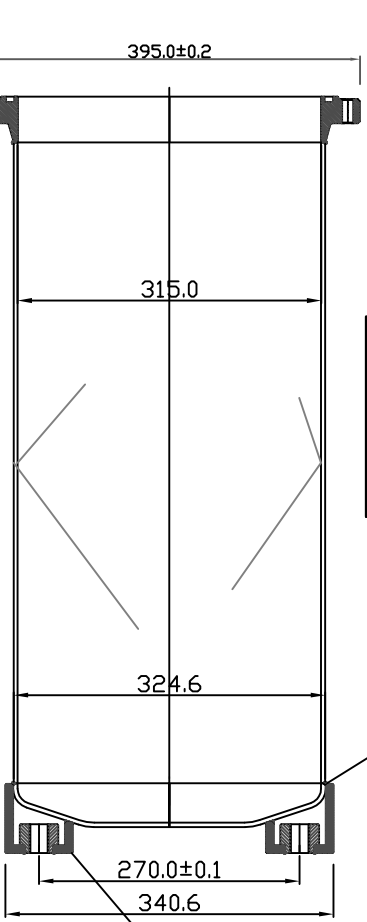
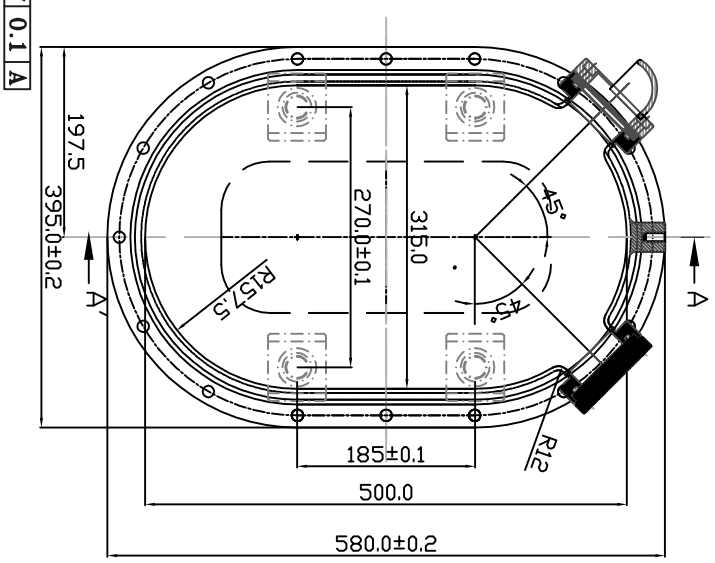
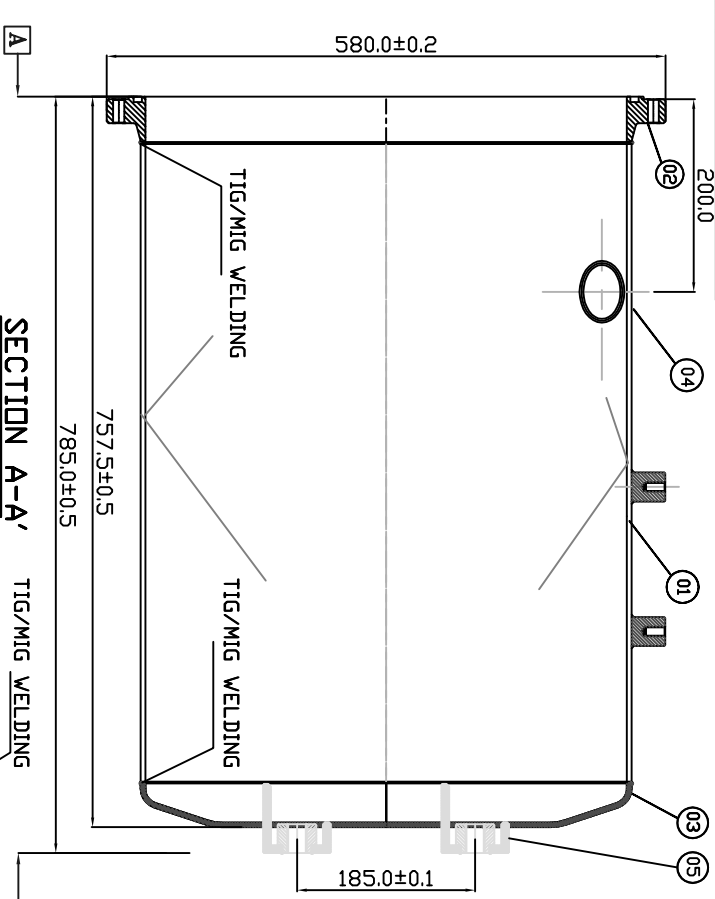
DRAWING NO.: **RD 99 320 000**

SHEET NO.: **1**

NO. OF SHEETS: **10**

| REV. | DATE | ALTERED | CHECKED | REV. | DATE | ALTERED | CHECKED |
|------|------|---------|---------|------|------|---------|---------|
| ZONE |      |         |         | ZONE |      |         |         |
|      |      |         |         |      |      |         |         |

FINAL ON 04/12/08

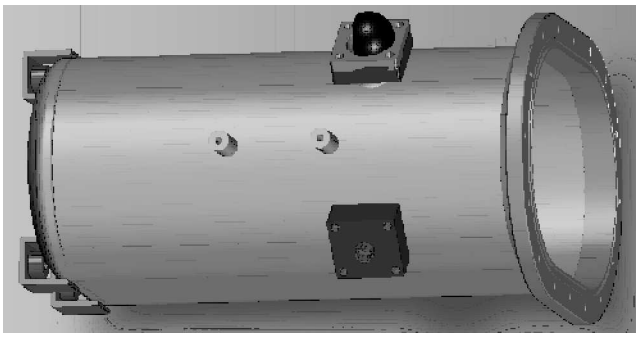
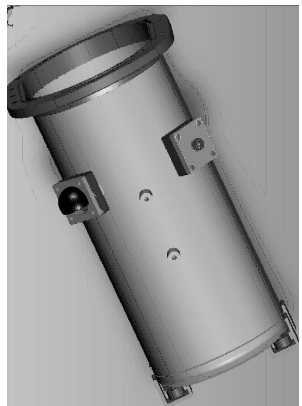


4 No. of BRACKETS @ 90° WITH 185.0x270.0 PCD

**NOTE:**  
**SECTION B-B'**

1. PIPE AND FLANGE TO BE TIG / MIG WELDING WITH SUITABLE SS ELECTRODE
2. THE ROOT SHOULD BE HOMOGENEOUS, UNIFORM AND CONTINUOUS (FULL WELDING).
3. THE ASSY. TO BE LEAK TESTED USING MSLD WITH HELIUM TO 10E-8 TLS - 1
4. PRESSURE TEST AT 11.0 BAR FOR 15 MINUTS (AIR/N<sub>2</sub>)
5. TESTED ASSEMBLIES TO BE DEGREASED.
6. SAND BLASTED AND POWDER COATED ON OUTSIDE.
7. SUPPRT BRACKETS SHALL BE WELDED TO ENCLOSURE ASSY.

| VAR NO | REMARKS           | VAR NO        | DESCRIPTION | QTY | DRAWING NO. | UNIT | UNIT WT. | QTY. | REV. |
|--------|-------------------|---------------|-------------|-----|-------------|------|----------|------|------|
| 05     | BRACKET           | RD 99 320 700 | SS-304L     | 04  |             |      |          |      |      |
| 04     | RUPTURE DISK ASSY | RD 99 320 600 | SS-304L     | 01  |             |      |          |      |      |
| 03     | DISH              | RD 99 320 203 | SS-304L     | 01  |             |      |          |      |      |
| 02     | FLANGE            | RD 99 320 202 | SS-304L     | 01  |             |      |          |      |      |
| 01     | PIPE              | RD 99 320 201 | SS-304L     | 01  |             |      |          |      |      |



|                   |                   |             |                   |
|-------------------|-------------------|-------------|-------------------|
| REV. / DATE       | ALTERED / CHECKED | REV. / DATE | ALTERED / CHECKED |
| ZONE              |                   | ZONE        |                   |
| FINAL DN 04/12/08 |                   |             |                   |

|            |          |       |            |
|------------|----------|-------|------------|
| DEFINITION | GRADE OF | SCALE | WEIGHT(KG) |
| GSM145     | SS304    | NIS   |            |

|                 |                               |                 |                               |
|-----------------|-------------------------------|-----------------|-------------------------------|
| TYPE OF PRODUCT | NAME OF CUSTOMER              | TYPE OF PRODUCT | NAME OF CUSTOMER              |
| ENCLOSURE ASSY. | BHARAT HEAVY ELECTRICALS LTD. | ENCLOSURE ASSY. | BHARAT HEAVY ELECTRICALS LTD. |
|                 | HYDERABAD                     |                 | HYDERABAD                     |

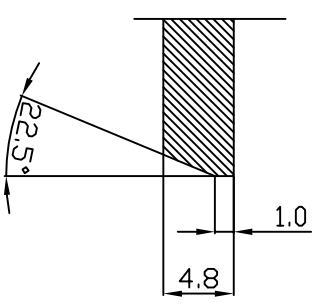
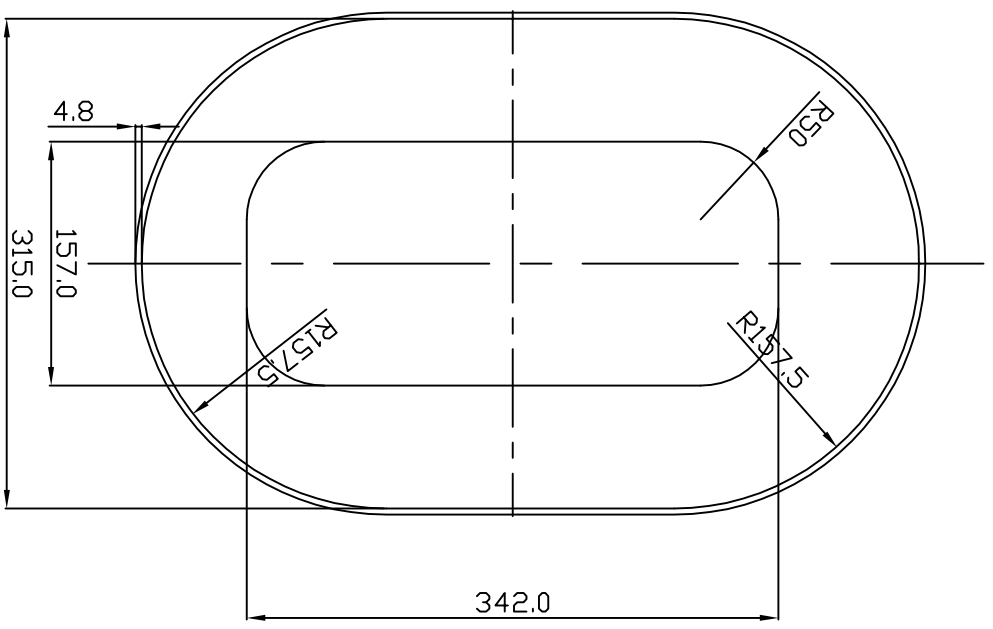
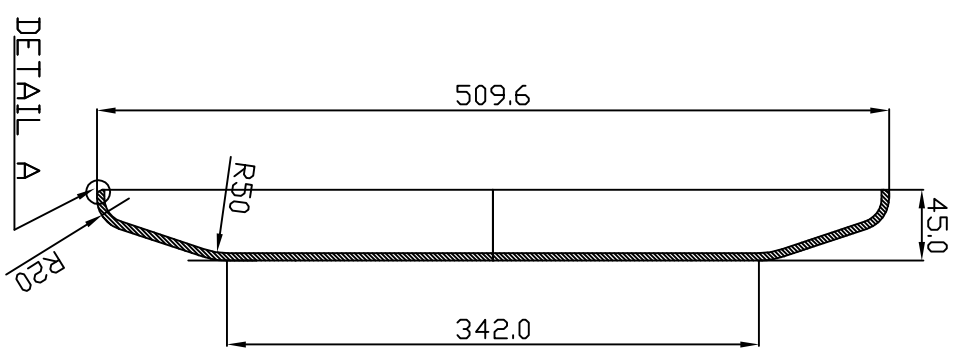
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| DRW. NO.      | NAME   | SIGN. | DATE     |
| RD 99 320 000 | MS RAO |       | 01/02/02 |
| RD 99 320 001 | MS RAO |       | 01/02/02 |
| RD 99 320 002 | MS RAO |       | 01/02/02 |
| RD 99 320 003 | MS RAO |       | 01/02/02 |
| RD 99 320 004 | MS RAO |       | 01/02/02 |
| RD 99 320 005 | MS RAO |       | 01/02/02 |
| RD 99 320 006 | MS RAO |       | 01/02/02 |
| RD 99 320 007 | MS RAO |       | 01/02/02 |
| RD 99 320 008 | MS RAO |       | 01/02/02 |
| RD 99 320 009 | MS RAO |       | 01/02/02 |
| RD 99 320 010 | MS RAO |       | 01/02/02 |





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INVENTORY NO. SIGN. AND DATE REF. DRG. NO.



| VAR. NO | REMARKS | VAR. ITEM NO. | DESCRIPTION | ES | DRAWING NO. | VAR. | ITNDL. | MATL. CODE | A | UNIT | V.T. | NO. OF |
|---------|---------|---------------|-------------|----|-------------|------|--------|------------|---|------|------|--------|
|         |         | 01            |             |    |             |      | SS-304 |            |   |      | 01   |        |

| REV.              | DATE | ALTERED | CHECKED | REV. | DATE | ALTERED | CHECKED |
|-------------------|------|---------|---------|------|------|---------|---------|
|                   |      |         |         |      |      |         |         |
| FINAL DN 04/12/08 |      |         |         |      |      |         |         |

**TYPE OF PRODUCT**  
**NAME OF CUSTOMER**  
**GSM**

**BHARAT HEAVY ELECTRICALS LTD.**  
 HYDERABAD

DEPT. (GRADE OF)  
 CODE 35  
 C/M/F

SCALE  
 NTS

WEIGHT(KG)

DRN KS RAO  
 CHD MM RAO  
 APPD HS JAIN

NAME  
 DATE  
 01.02.02

REF. TO  
 RD 99 320 200

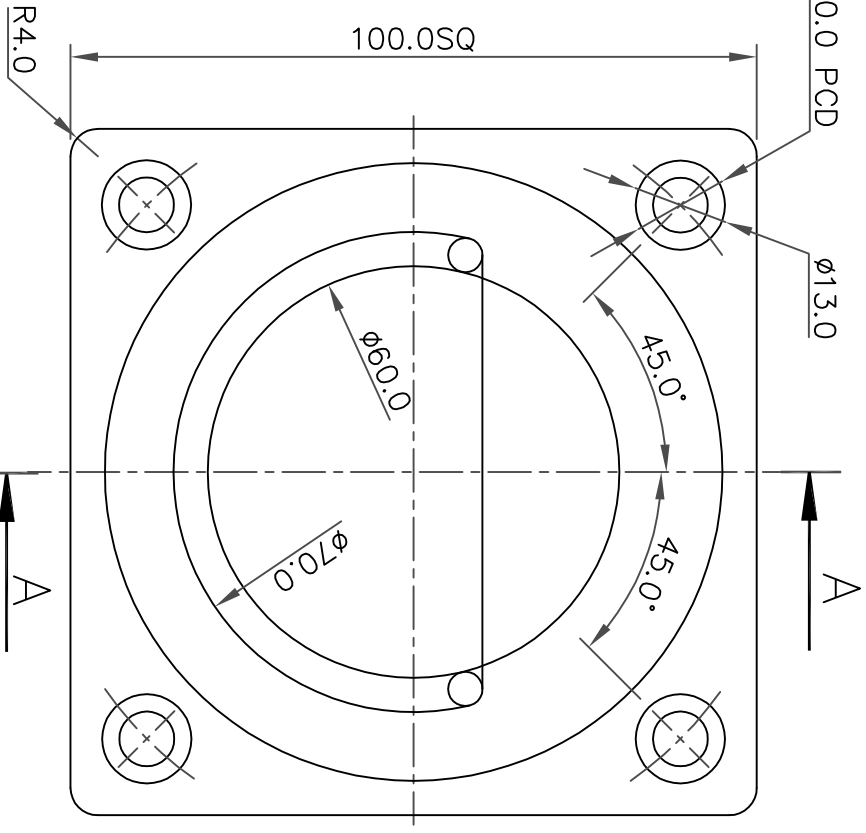
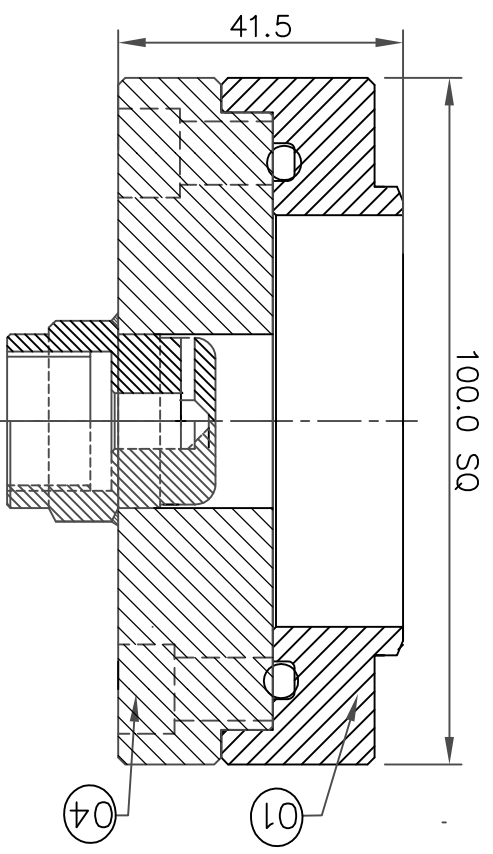
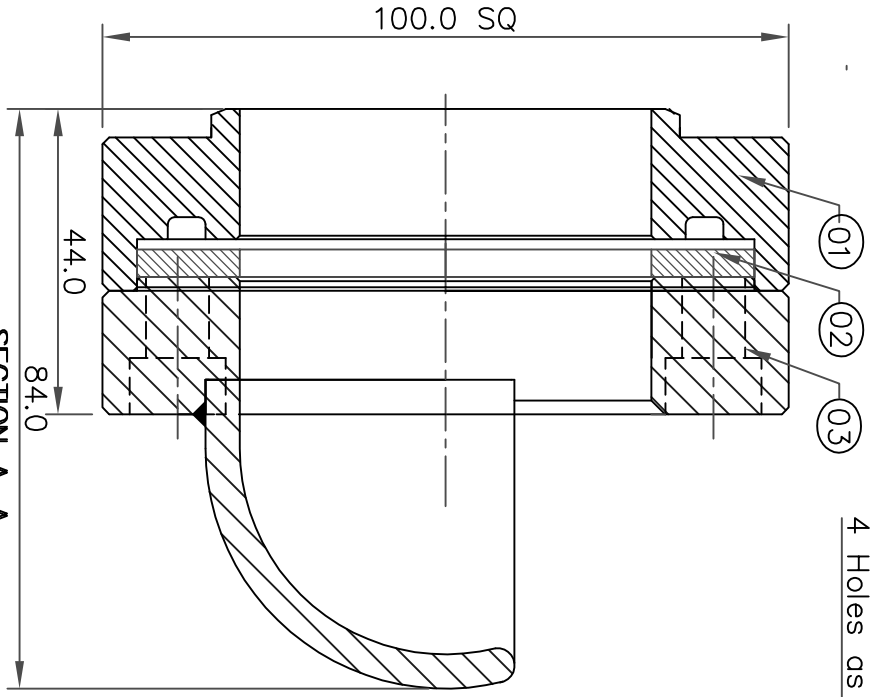
ITEM NO.  
 10

NO. OF  
 VARS.

**DISH**

CARD CODE  
 RD 99 320 203

SHEET NO. NO. OF SHEETS



| ITEM NO. | DESCRIPTION        | QTY | DRAWING NO.   | IT/NO. | MATL. CODE | MATL. SPECN. | UNIT WGT. | QTY. | ZONE |
|----------|--------------------|-----|---------------|--------|------------|--------------|-----------|------|------|
| 04       | DUMMY FLANGE       | 1   | RD 99 320 640 |        | SS-304     |              | 1         |      |      |
| 03       | RUPTURE DISK COVER | 1   | RD 99 320 630 |        | SS-304     |              | 1         |      |      |
| 02       | RING               | 1   | RD 99 320 620 |        | SS-304     |              | 1         |      |      |
| 01       | FLANGE             | 1   | RD 99 320 610 |        | SS-304     |              | 1         |      |      |

TYPE OF PRODUCT  
NAME OF CUSTOMER  
**GSM 145**

BHARAT HEAVY ELECTRICALS LTD.  
HYDERABAD

| REV. | DATE | ALTERED | CHECKED | ZONE |
|------|------|---------|---------|------|
|      |      |         |         |      |

| REV. | DATE | ALTERED | CHECKED | ZONE |
|------|------|---------|---------|------|
|      |      |         |         |      |

| DEPT. | SCALE | WGT(KG) | NO. OF SHEETS |
|-------|-------|---------|---------------|
| GSM   | NTS   |         | 2             |

| DEN. | NAME | SIGN. | DATE     | NO. OF |
|------|------|-------|----------|--------|
| MM   | MM   |       | 01.02.03 | VAR.   |

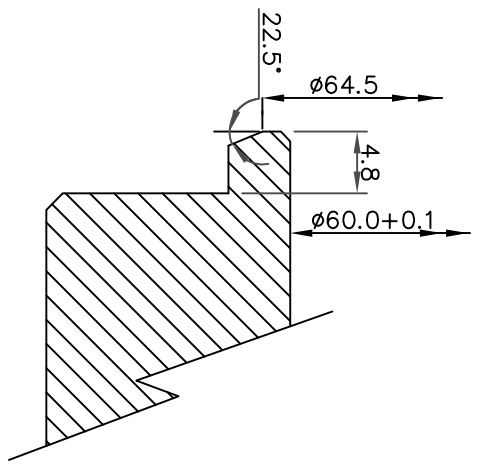
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|-------|-----|------|---------------|--------|
|       |     |      | RD 99 320 200 | ITEMS  |

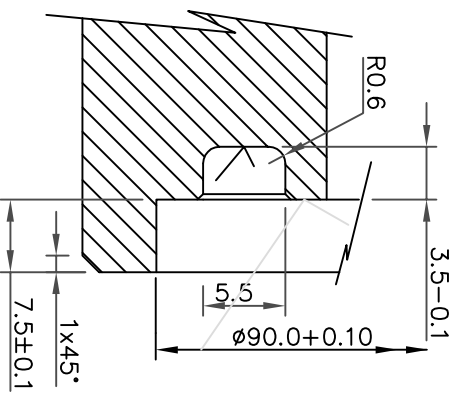
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| RUPTURE DISK ASSY | RD 99 320 600 | 0           | 6    |

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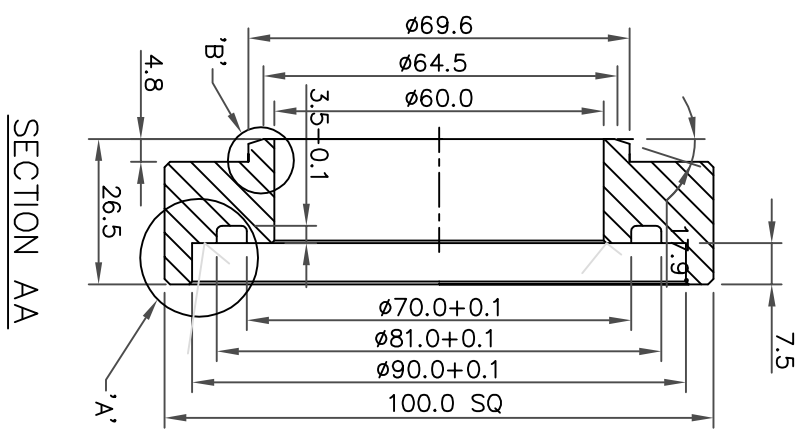
INVENTORY NO. SIGN. AND DATE REF. DRG. NO.



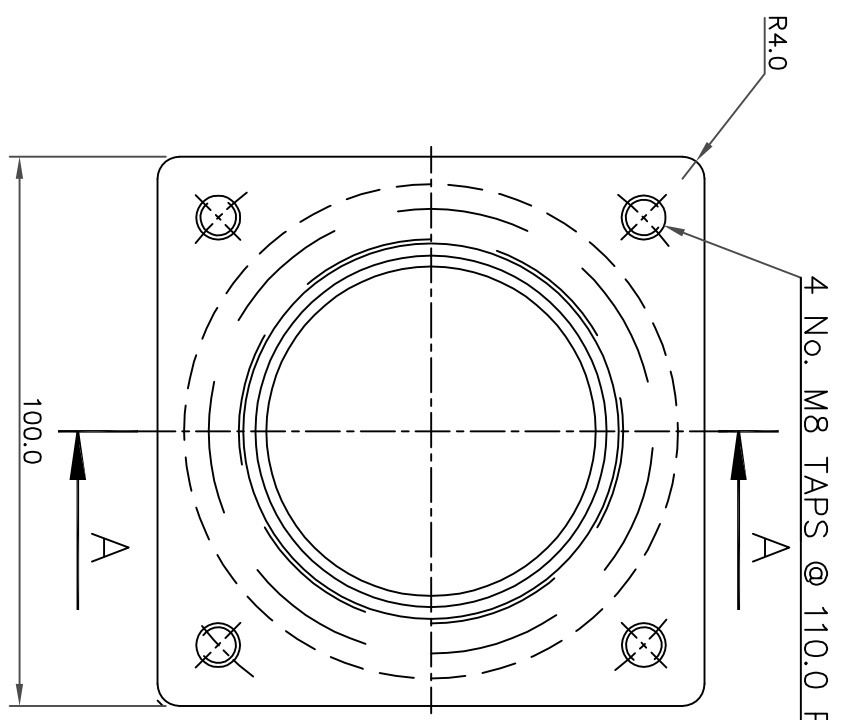
ENLARGED VIEW 'B'



ENLARGED VIEW 'A'



SECTION AA



4 No. M8 TAPS @ 110.0 PCD

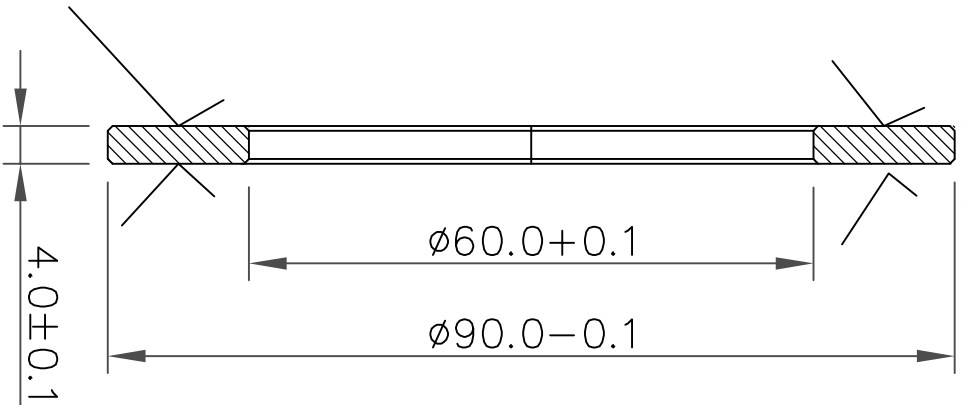
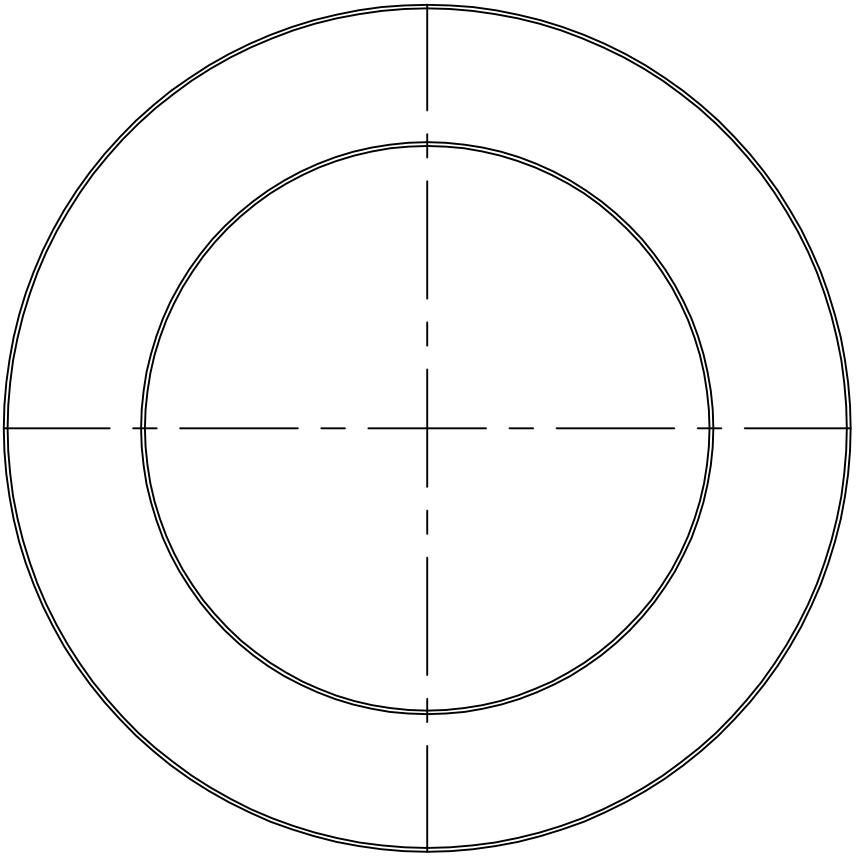
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|----------|---------|----------|----------|-------------|------|-----------------|---------|------------|-----------|------|------|
|          |         | 01       |          | SS PLATE    |      | 105.0 SQ x 30.0 |         | SS 304     |           |      |      |

TYPE OF PRODUCT  
 NAME OF CUSTOMER  
**GSM 145**

|         |                               |            |      |          |         |               |        |
|---------|-------------------------------|------------|------|----------|---------|---------------|--------|
|         | BHARAT HEAVY ELECTRICALS LTD. |            | DN   | NAME     | SIGN.   | DATE          | NO. OF |
|         | HYDERABAD                     |            | CD   | MM RAO   |         | 01.02.03      | VAR.   |
| DEPT    | SCALE                         | WEIGHT(KG) | APPD | HS. JAIN | REF. TO | RD 99 320 600 | NO. OF |
| CODE 35 | NTS                           |            |      |          |         | 2             | ITEMS  |

| REV. | DATE | ALTERED | REV. | DATE | ALTERED | DEPT    | SCALE | WEIGHT(KG) | DN   | NAME     | SIGN. | DATE     | NO. OF |
|------|------|---------|------|------|---------|---------|-------|------------|------|----------|-------|----------|--------|
|      |      | CHECKED |      |      | CHECKED | CODE 35 | NTS   |            | CD   | MM RAO   |       | 01.02.03 | VAR.   |
|      |      |         |      |      |         | TITLE   |       |            | APPD | HS. JAIN |       | 01.02.03 | NO. OF |
|      |      |         |      |      |         | FLANGE  |       |            |      |          |       |          | ITEMS  |
|      |      |         |      |      |         |         |       |            |      |          |       |          | NO. OF |
|      |      |         |      |      |         |         |       |            |      |          |       |          | ITEMS  |
|      |      |         |      |      |         |         |       |            |      |          |       |          | NO. OF |
|      |      |         |      |      |         |         |       |            |      |          |       |          | ITEMS  |

O-RING GROOVE SURFACE SHALL BE FINISHED TO RA 0.8  
 MARKED SURFACE SHALL BE FINISHED TO RA 1.6



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INVENTORY NO.    SIGN. AND DATE    REF. DRG. NO.

MARKED SURFACE SHALL BE FINISHED TO RA 0.8  
 ALL SHARP EDGES SHALL BE MACHINED TO 0.4x45°

| REV. | DATE | ALTERED | CHECKED | ZONE |
|------|------|---------|---------|------|
|      |      |         |         |      |

| VAR. NO. | ITEM NO. | DESCRIPTION | VAR. NO. | ITEM NO. | DESCRIPTION |
|----------|----------|-------------|----------|----------|-------------|
|          | 01       | SS PLATE    |          |          |             |

|                 |  |                               |  |
|-----------------|--|-------------------------------|--|
| TYPE OF PRODUCT |  | NAME OF CUSTOMER              |  |
| GSM 145         |  | BHARAT HEAVY ELECTRICALS LTD. |  |
| HYDERABAD       |  | HYDERABAD                     |  |



DEPT. (SCALE OF)  
 GSM 145  
 C/M/F

|      |         |       |          |
|------|---------|-------|----------|
| DRN  | NAME    | SIGN. | DATE     |
|      | KS RAO  |       | 01.02.03 |
| APPD | HS JAIN |       | 01.02.03 |

|            |       |            |               |        |
|------------|-------|------------|---------------|--------|
| DEPT. CODE | SCALE | WEIGHT(KG) | REF. TO       | NO. OF |
| 35         | NTS   |            | RD 99 320 600 | 6      |

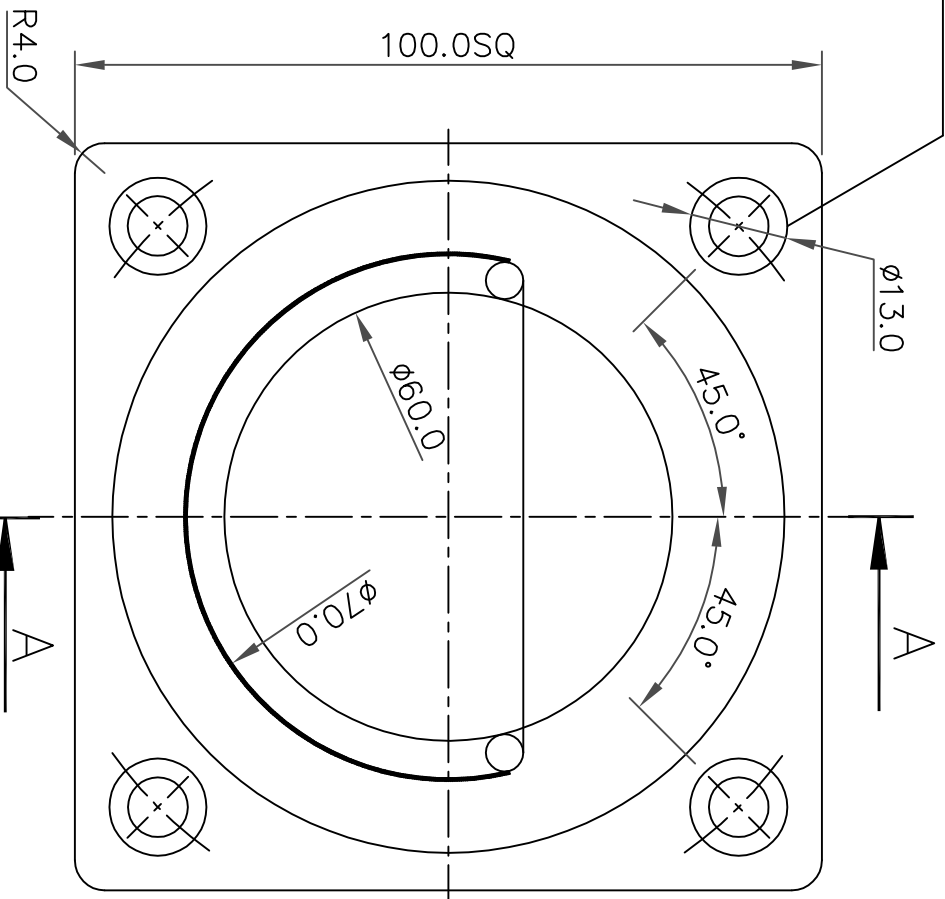
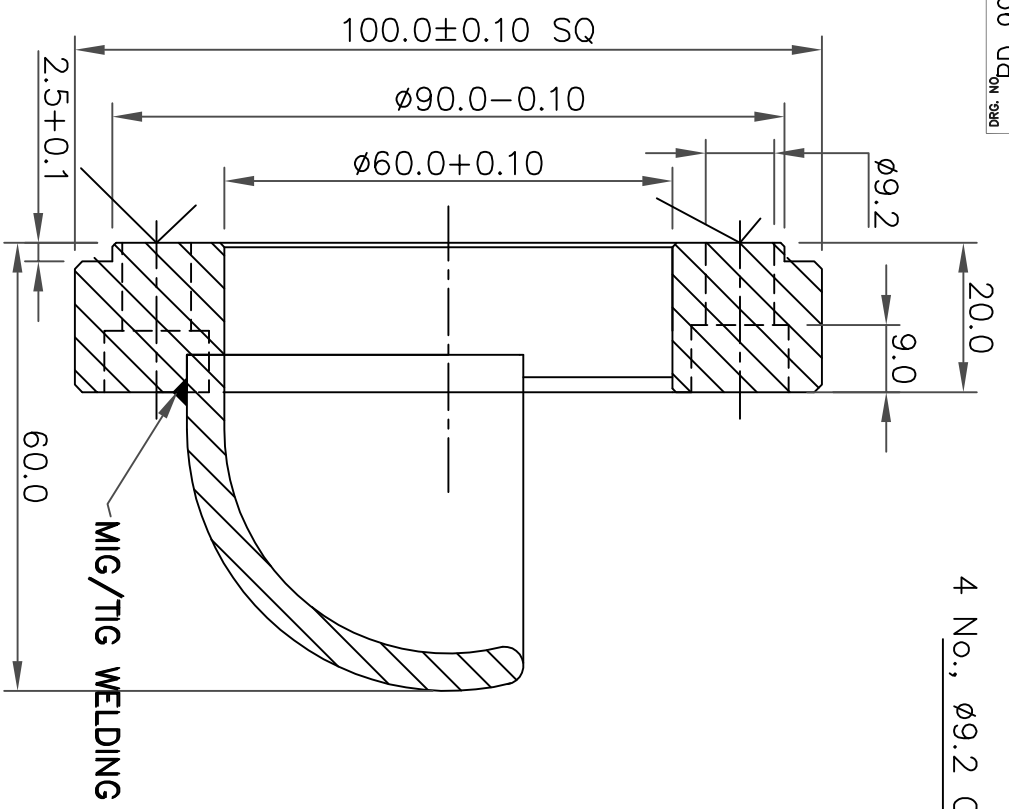
|       |               |             |      |
|-------|---------------|-------------|------|
| TITLE | CARD CODE     | DRAWING NO. | REV. |
| RING  | RD 99 320 620 |             | 0    |

|      |      |         |         |      |
|------|------|---------|---------|------|
| REV. | DATE | ALTERED | CHECKED | ZONE |
|      |      |         |         |      |

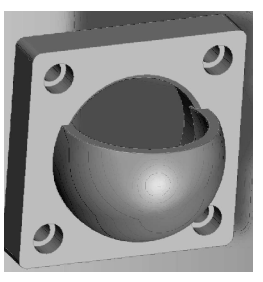
|               |              |
|---------------|--------------|
| NO. OF SHEETS | NO. OF ITEMS |
|               | 2            |

4 No.,  $\phi 9.2$  Clear Holes With Counters @ 110.0 PCD

(~1.6)



SECTION AA



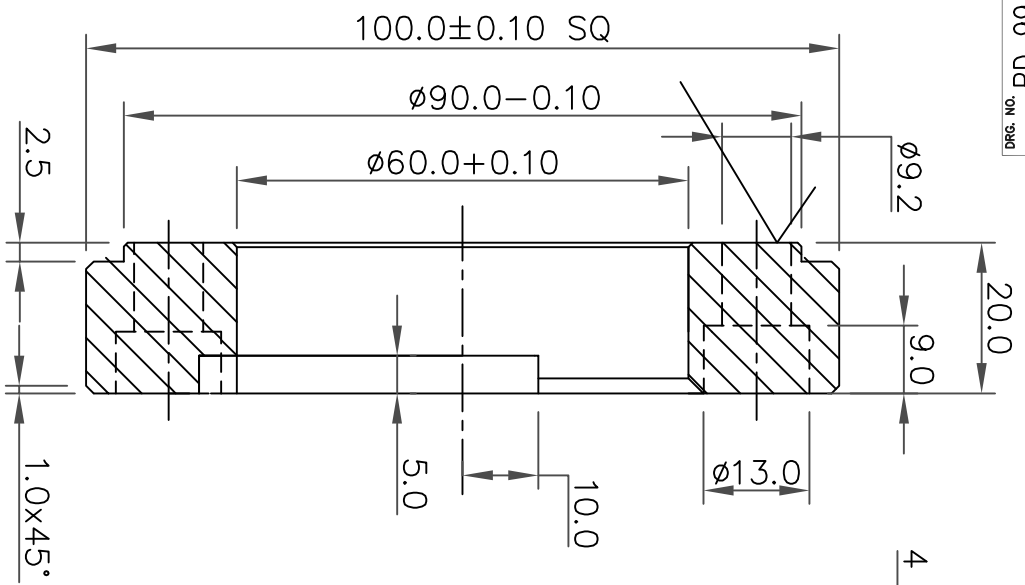
WELDING SHALL BE HOMOGENEOUS AND CONTINUOUS.  
MARKED SURFACE SHALL BE FINISHED TO RA 1.6

| VAR. NO. | ITEM NO. | DESCRIPTION      | DR. NO.       | VAR. | MATL. CODE | MATL. SPECN. | UNIT | QTY. | ZONE |
|----------|----------|------------------|---------------|------|------------|--------------|------|------|------|
|          | 02       | PROTECTIVE COVER | RD 99 320 632 |      | SS 304-L   |              |      | 01   |      |
|          | 01       | FLANGE           | RD 99 320 631 |      | SS 304-L   |              |      | 01   |      |

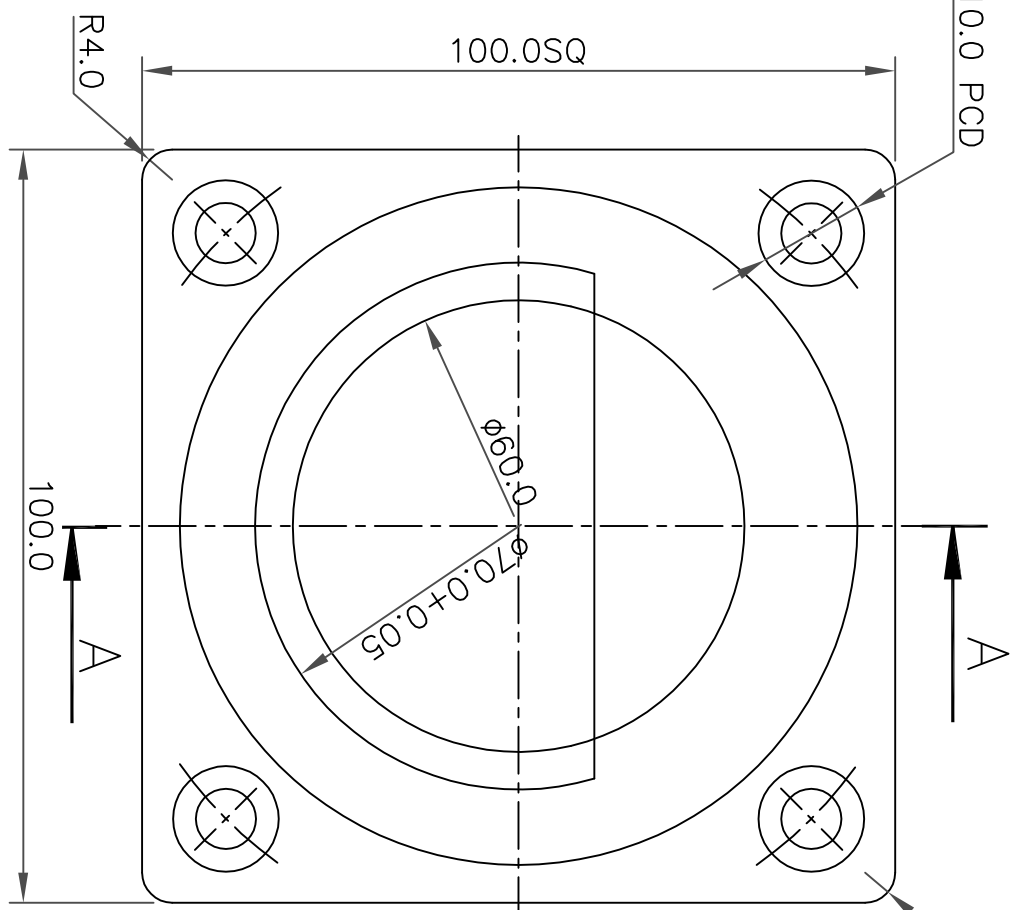
TYPE OF PRODUCT  
NAME OF CUSTOMER  
**GSM 145**

|            |           |       |             |     |      |       |          |        |
|------------|-----------|-------|-------------|-----|------|-------|----------|--------|
| DEPT. CODE | ISSUED BY | SCALE | WEIGHT (KG) | DIN | NAME | SIGN. | DATE     | NO. OF |
| 35         | GSM       | NTS   |             | KS  | MS   |       | 01.02.03 | VAR.   |
|            |           |       |             | MM  | RD   |       | 01.02.03 |        |
|            |           |       |             | HS  | JAN  |       | 01.02.03 |        |

|                    |           |               |      |        |
|--------------------|-----------|---------------|------|--------|
| TITLE              | CARD CODE | DRAWING NO.   | REV. | NO. OF |
| RUPTURE DISK COVER |           | RD 99 320 600 | 2    | ITEMS  |
|                    |           | RD 99 320 630 | 0    | NO. OF |
|                    |           |               |      | SHEETS |



SECTION AA



MARKED SURFACE SHALL BE FINISHED TO RA 1.6  
ALL SHARP EDGES SHALL BE MACHINED TO 0.4x45°.

|          |         |          |          |             |      |                 |        |            |   |           |  |      |
|----------|---------|----------|----------|-------------|------|-----------------|--------|------------|---|-----------|--|------|
| VAR. NO. | REMARKS | VAR. NO. | ITEM NO. | DESCRIPTION | QTY. | DRAWING NO.     | SS 304 | MATL. CODE | A | UNIT WGT. |  | ZONE |
|          |         |          | 01       | SS PLATE    |      | 105.0 SQ x 25.0 |        |            |   |           |  |      |

TYPE OF PRODUCT  
NAME OF CUSTOMER  
**GSM 145**

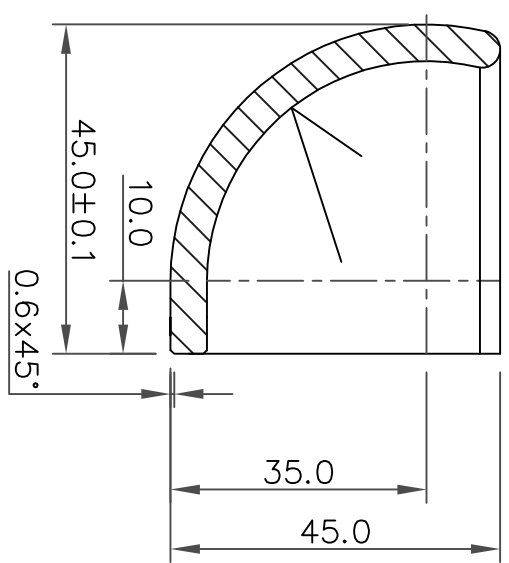
|         |           |       |            |      |         |       |          |        |
|---------|-----------|-------|------------|------|---------|-------|----------|--------|
| DEPT.   | ISSUED BY | SCALE | WEIGHT(KG) | DEN. | NAME    | SIGN. | DATE     | NO. OF |
| CODE 35 | GSM       | NTS   |            | KS   | KS RAO  |       | 01.02.03 | VAR.   |
|         |           |       |            | MM   | MM RAO  |       | 01.02.03 |        |
|         |           |       |            | RS   | RS JAIN |       | 01.02.03 |        |

|      |      |         |      |      |         |         |           |       |            |      |         |       |          |        |
|------|------|---------|------|------|---------|---------|-----------|-------|------------|------|---------|-------|----------|--------|
| REV. | DATE | ALTERED | REV. | DATE | ALTERED | DEPT.   | ISSUED BY | SCALE | WEIGHT(KG) | DEN. | NAME    | SIGN. | DATE     | NO. OF |
| ZONE |      | CHECKED | ZONE |      | CHECKED | CODE 35 | GSM       | NTS   |            | KS   | KS RAO  |       | 01.02.03 | VAR.   |
|      |      |         |      |      |         |         |           |       |            | MM   | MM RAO  |       | 01.02.03 |        |
|      |      |         |      |      |         |         |           |       |            | RS   | RS JAIN |       | 01.02.03 |        |

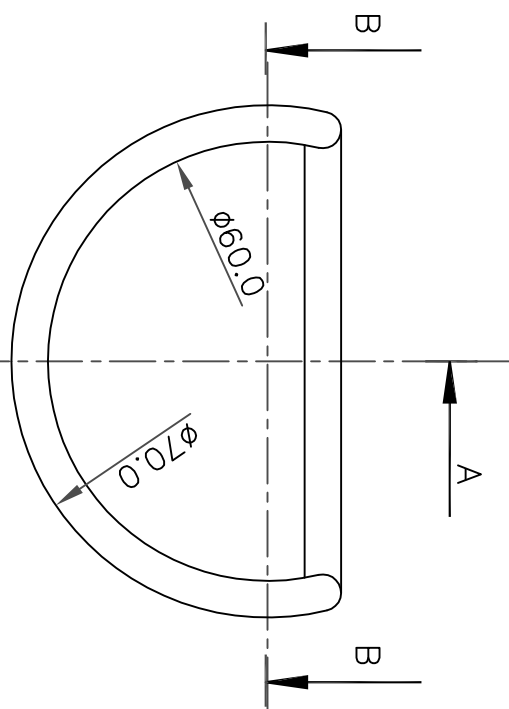
|        |               |               |           |               |
|--------|---------------|---------------|-----------|---------------|
| TITLE  | CARD CODE     | DRAWING NO.   | SHEET NO. | NO. OF SHEETS |
| FLANGE | RD 99 320 631 | RD 99 320 631 | 2         | 6             |

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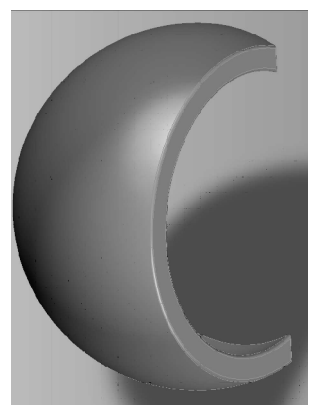
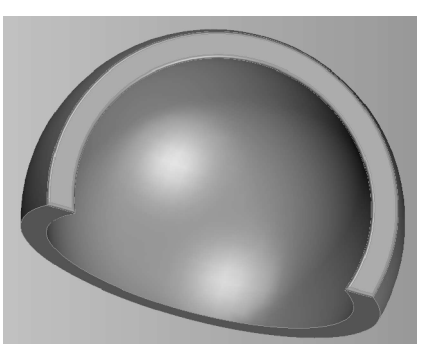
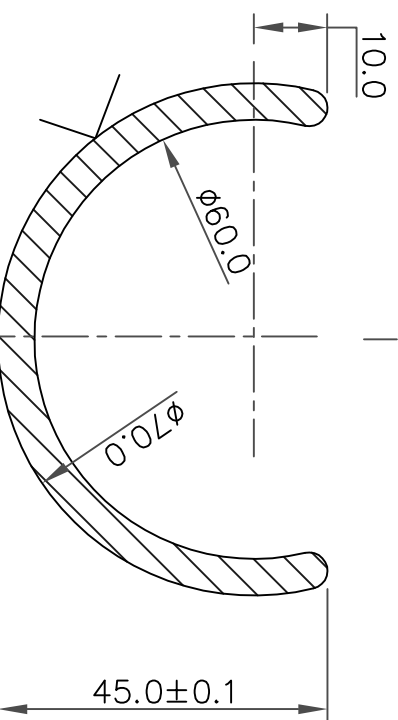
INVENTORY NO. SIGN. AND DATE REF. DRG. NO.



SECTION AA



SECTION BB



SURFACE SHALL BE FINISHED TO RA1.6  
COMPONENT SHALL BE MADE USING SUITABLE PATTERN.  
ALL SHARP EDGES SHALL BE MACHINED TO 0.4X45°

| VAR. NO. | REMARKS  | VAR. NO. | ITEM NO. | DESCRIPTION | QTY. | UNIT | WT. |
|----------|----------|----------|----------|-------------|------|------|-----|
| 01       | SS PLATE |          |          | SS 304-L    |      |      |     |

| REV. | DATE | ALTERED | REV. | DATE | ALTERED |
|------|------|---------|------|------|---------|
|      |      | CHECKED |      |      | CHECKED |

TYPE OF PRODUCT: GSM 145  
NAME OF CUSTOMER: BHARAT HEAVY ELECTRICALS LTD. HYDERABAD

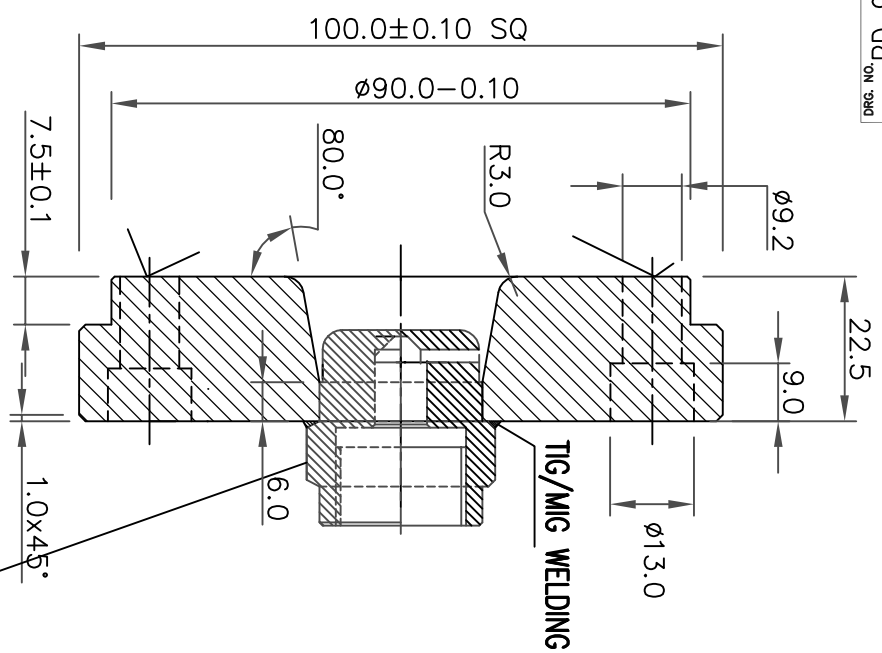
DEPT. CODE: 35  
SCALE: NTS  
WEIGHT(KG):

DRW. NO. RD 99 320 630  
DATE: 01.02.03

CAD CODE: RD 99 320 632  
SHEET NO.: 0

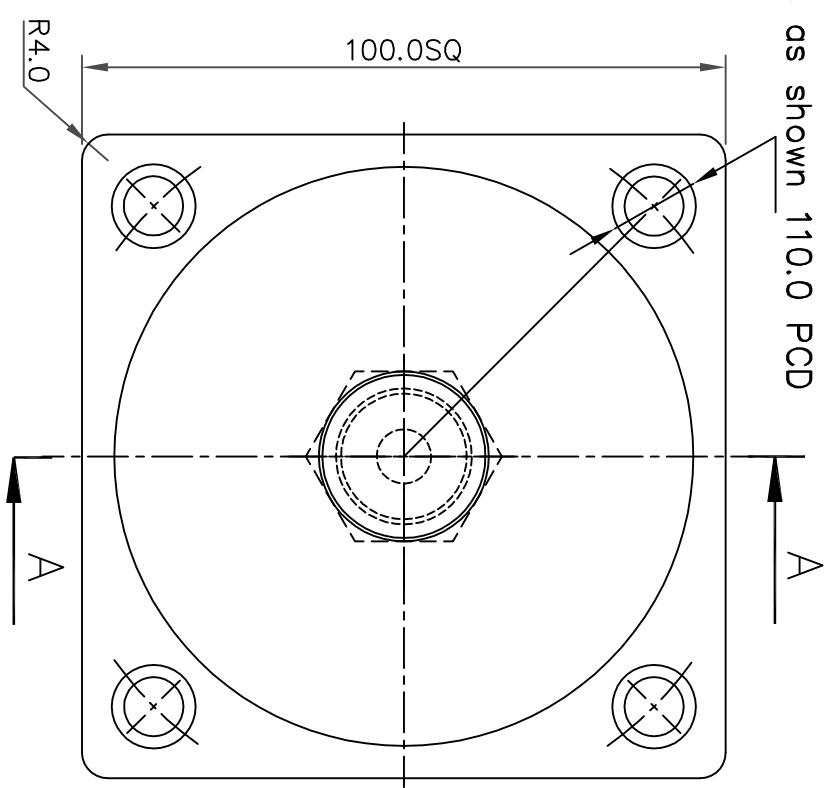
PROTECTIVE COVER





SECTION AA

REFER GAS STUD AS PER RD 99 320 650A



4 Holes as shown 110.0 PCD

STUD SHALL BE MATCHED TO COMPONENT PRIOR TO WELDING  
 WELDING SHALL BE CONTINUOUS AND UNIFORM  
 MARKED SURFACE SHALL BE FINISHED TO RA 1.6

| REV. | DATE | ALTERED | CHECKED | REV. | DATE | ALTERED | CHECKED |
|------|------|---------|---------|------|------|---------|---------|
| 01   |      |         |         |      |      |         |         |

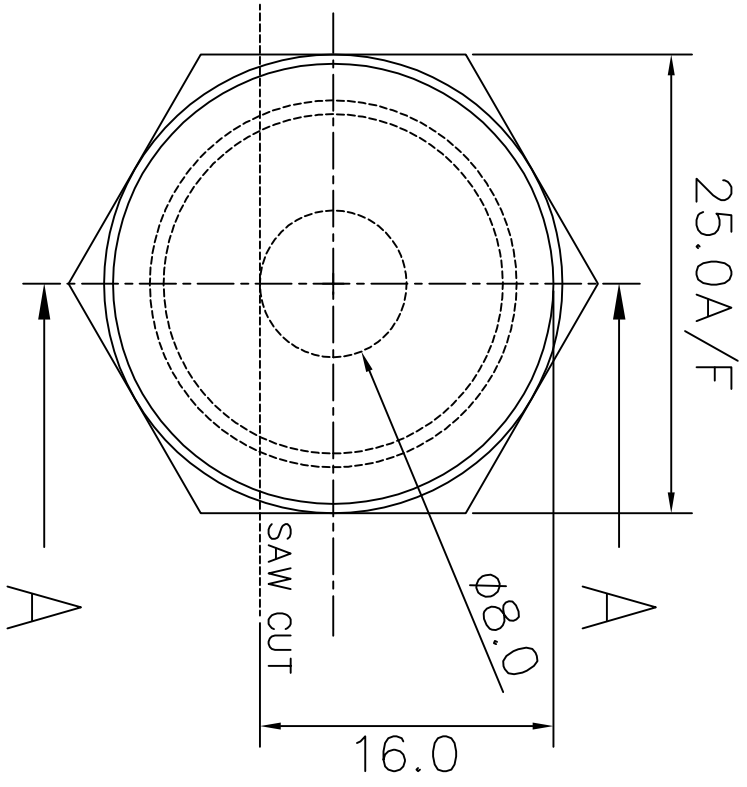
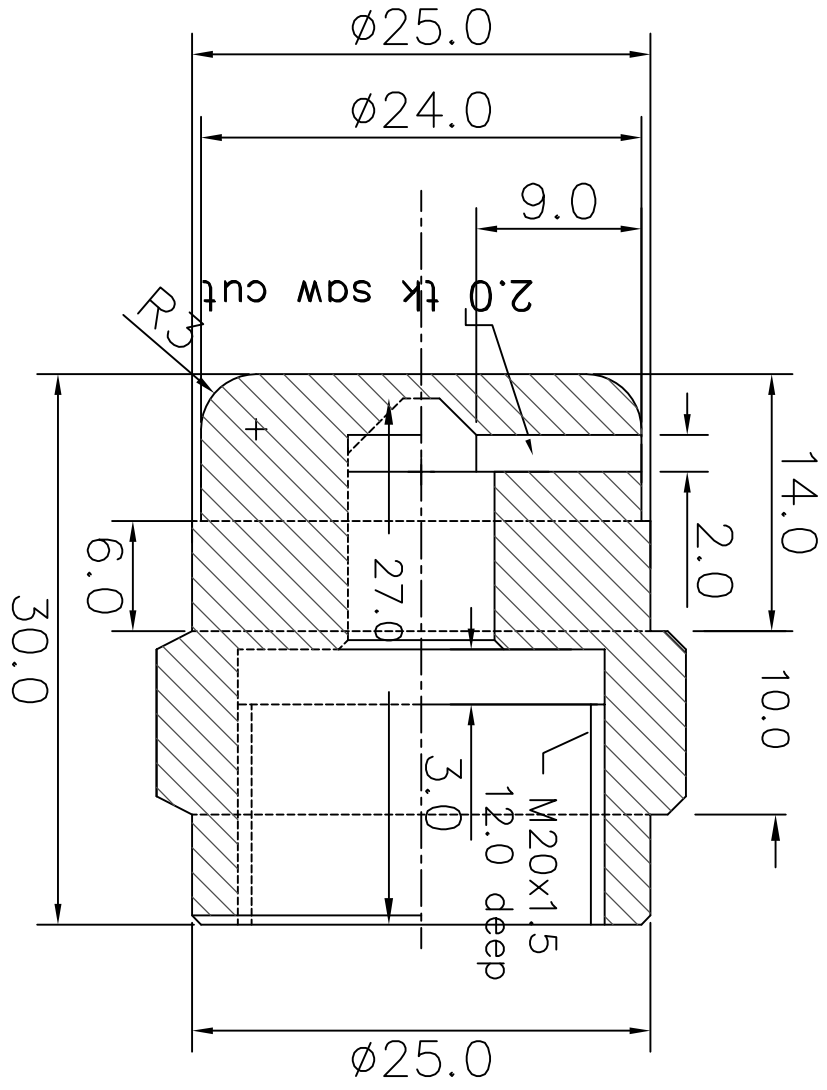
|    |          |                 |          |  |  |  |  |
|----|----------|-----------------|----------|--|--|--|--|
| 01 | SS PLATE | 105.0 SQ X 25.0 | SS 304-L |  |  |  |  |
|----|----------|-----------------|----------|--|--|--|--|

|      |        |          |               |
|------|--------|----------|---------------|
| DRN  | KS RAO | DATE     | 01.02.03      |
| APPD | HS JAN | REF. TO  | RD 99 320 600 |
| CMD  | MM RAO | ITEM NO. | 2             |
|      |        | NO. OF   | 6             |
|      |        | NO. OF   | 0             |

|               |               |               |               |            |  |
|---------------|---------------|---------------|---------------|------------|--|
| DEPT          | GS            | SCALE         | NTS           | WEIGHT(KG) |  |
| CODE          | 35            |               |               |            |  |
| TITLE         | DUMMY FLANGE  |               |               |            |  |
| CARD CODE     | RD 99 320 650 | DRAWING NO.   | RD 99 320 650 | SHEET NO.  |  |
| NO. OF SHEETS |               | NO. OF SHEETS |               |            |  |

|       |             |         |         |      |      |         |         |
|-------|-------------|---------|---------|------|------|---------|---------|
| REV.  | DATE        | ALTERED | CHECKED | REV. | DATE | ALTERED | CHECKED |
| FINAL | ON 04/12/08 |         |         |      |      |         |         |

TYPE OF PRODUCT: GSM 145  
 NAME OF CUSTOMER: BHARAT HEAVY ELECTRICALS LTD. HYDERABAD



SECTION AA

MARKED SURFACE SHALL BE FINISHED TO RA 1.6  
SAW CUT ROOT SHALL BE CLEAN AND CLEAR

| VAR. NO. | ITEM NO. | DESCRIPTION | QTY | UNIT | REMARKS |
|----------|----------|-------------|-----|------|---------|
|          | 01       | SS BLOCK    |     |      |         |

|                  |                               |
|------------------|-------------------------------|
| TYPE OF PRODUCT  | GSM 145                       |
| NAME OF CUSTOMER | BHARAT HEAVY ELECTRICALS LTD. |
| HYDERABAD        |                               |

|                  |        |
|------------------|--------|
| DEPT. / GRADE OF | SS 304 |
| CODE             | 35     |
| SCALE            | NTS    |
| WEIGHT(KG)       |        |

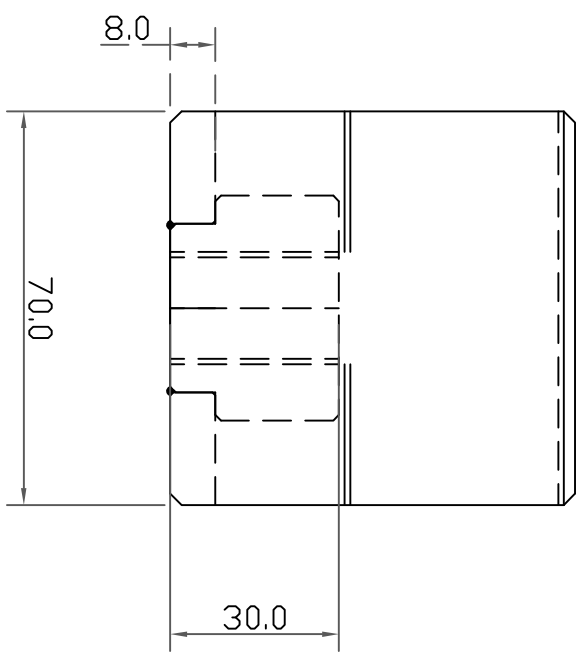
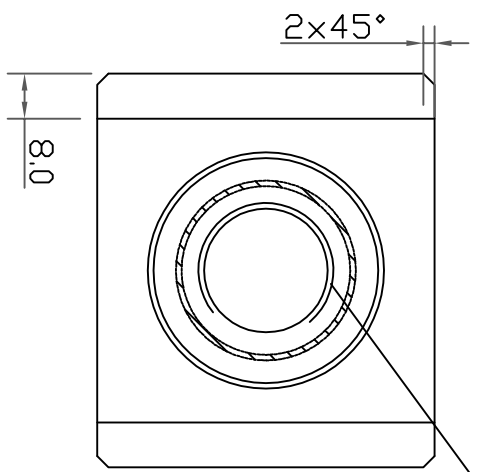
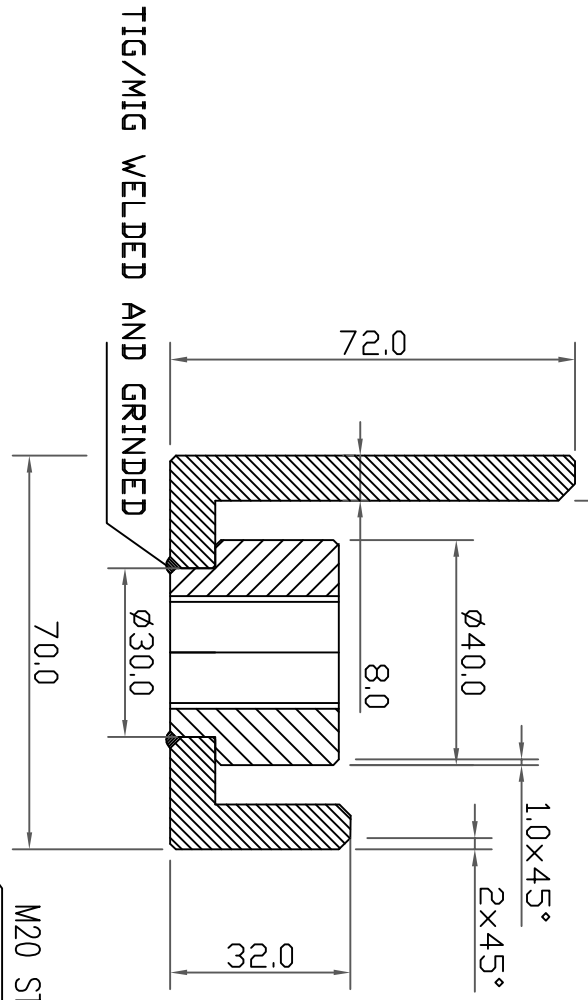
|         |        |       |          |
|---------|--------|-------|----------|
| DRN     | NAME   | SIGN. | DATE     |
| APPD    | HS JAN |       | 01.02.03 |
| CHKD    | MM RAO |       | 01.02.03 |
| REF. TO |        |       |          |
| REF. TO |        |       |          |

|           |             |               |
|-----------|-------------|---------------|
| CARD CODE | DRAWING NO. | NO. OF SHEETS |
| RD 99     | 320 600     | 2             |
| RD 99     | 320 650A    | 0             |

| REV.  | DATE     | ALTERED | CHECKED | ZONE |
|-------|----------|---------|---------|------|
| FINAL | 04/12/08 |         |         |      |

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INVENTORY NO. SIGN. AND DATE REF. DRG. NO.



AFTER WELDING SURFACE SHALL BE GRINDED TO DIMENSIONS  
 ALL SHARP EDGES SHALL BE MACHINED TO 0.4x45°  
 COMPONENT SHALL MATCH ENCLOSURE SURFACE.

| VAR. NO. | REMARKS | VAR. ITEM NO. | DESCRIPTION | EST. | DRAWING NO. | VAR. | MATL. CODE | MATL. SPECN. | UNIT | QTY. | ZONE |
|----------|---------|---------------|-------------|------|-------------|------|------------|--------------|------|------|------|
|          |         | 01            | BLOCK       |      |             |      | SS-304L    |              |      |      |      |

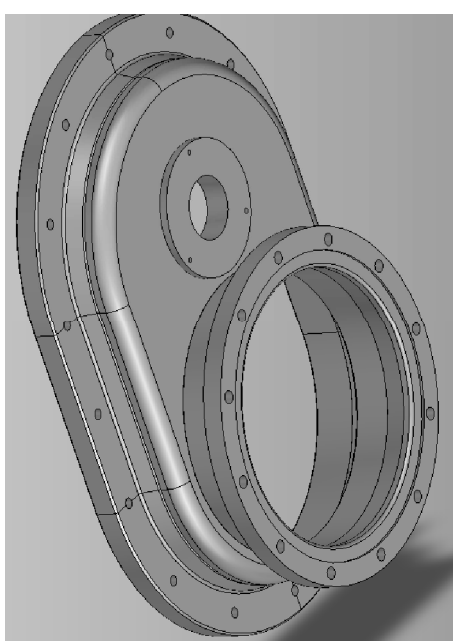
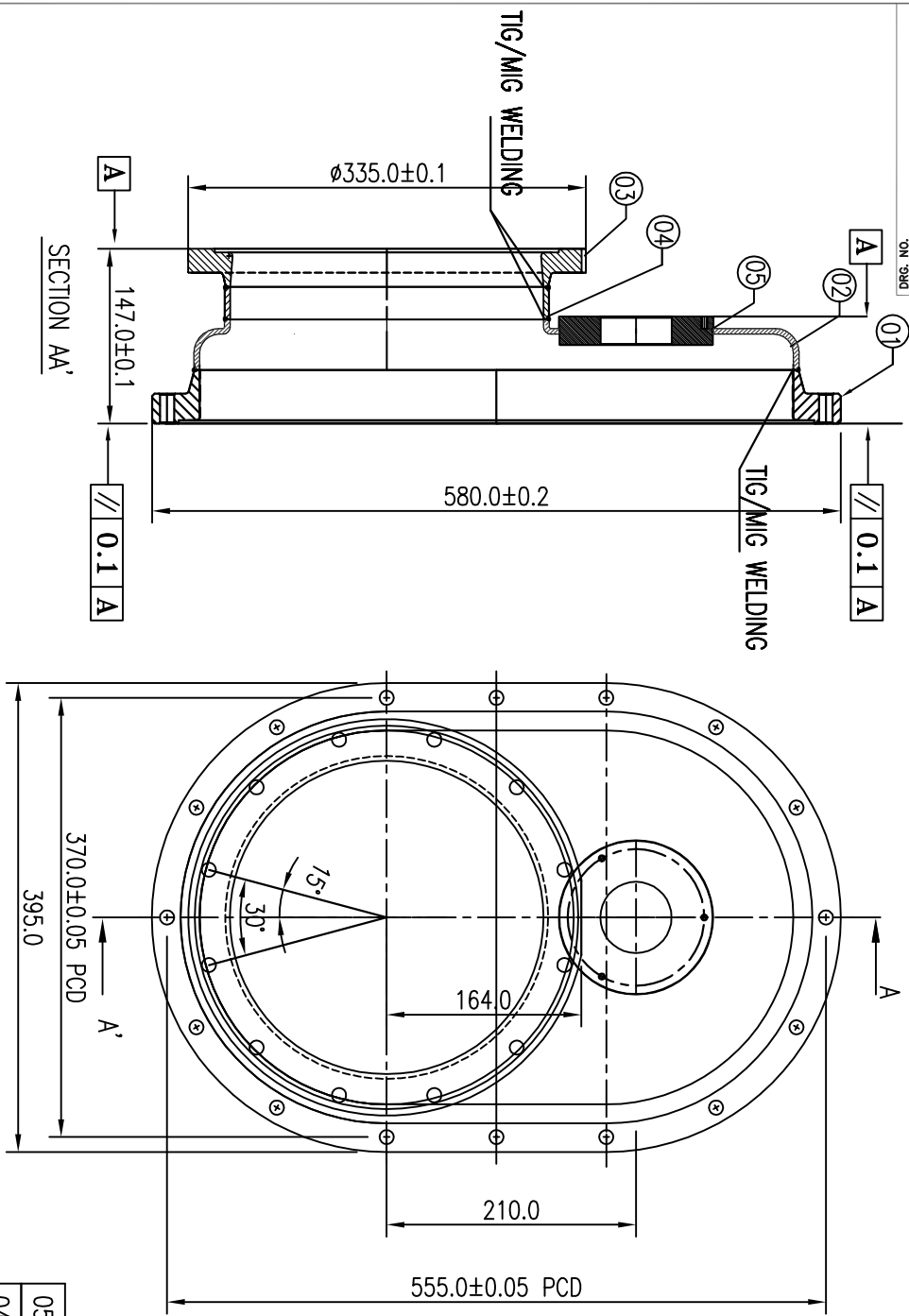
|      |      |         |      |      |         |
|------|------|---------|------|------|---------|
| REV/ | DATE | ALTERED | REV/ | DATE | ALTERED |
| ZONE |      | CHECKED | ZONE |      | CHECKED |

|                               |           |           |            |       |          |       |          |        |
|-------------------------------|-----------|-----------|------------|-------|----------|-------|----------|--------|
| DEPT.                         | ISSUE OF  | SCALE     | WEIGHT(KG) | DIN   | NAME     | SIGN. | DATE     | NO. OF |
| CODE 35                       | TS/MS/IN/ | NTS       |            | MS RD | MM RD    |       | 01.02.02 | VAR.   |
| BHARAT HEAVY ELECTRICALS LTD. |           | HYDERABAD |            | APPD. | HS. JANI |       | 01.02.02 |        |

|         |           |               |               |
|---------|-----------|---------------|---------------|
| TITLE   | CARD CODE | REF. TO       | NO. OF SHEETS |
| BRACKET |           | RD 99 320 000 | 1             |
|         |           | RD 99 320 700 | 2             |
|         |           |               | 10            |



**NOTE:**

1. PIPE AND FLANGE TO BE TIG/MIG WELDING WITH SUITABLE SS ELECTRODE
2. THE ROOT SHOULD BE HOMOGENEOUS AND CONTINUOUS.
3. THE ASSY. TO BE LEAK TESTED USING MSLD WITH HELIUM TO 10E-8 TLS - 1
4. PRESSURE TEST AT 11.0 BAR FOR 15 MINUTS (AIR/N<sub>2</sub>)
5. TESTED ASSEMBLIES TO BE DEGREASED, SAND BLASTED AND POWDER COATED ON OUTSIDE.
6. ELECTRO CHEMICAL POLISH INSIDE SURFACE.
7. WELDED JOINTS SHALL BE GRINDED TO DIMENSIONS ON INNER SURFACE.
8. WELDED JOINTS ON OUTER SURFACE SHALL BE UNIFORM.

| VAR. NO. | ITEM NO. | DESCRIPTION | REV. NO. | DATE | REMARKS |
|----------|----------|-------------|----------|------|---------|
| 01       | 01       | FLANGE      |          |      |         |
| 02       | 02       | DISH        |          |      |         |
| 03       | 03       | AUX.FLANGE  |          |      |         |
| 04       | 04       | EXTENSION   |          |      |         |
| 05       | 05       | ADAPTOR     |          |      |         |

TYPE OF PRODUCT: **GSM 145**

NAME OF CUSTOMER: **BHARAT HEAVY ELECTRICALS LTD. HYDERABAD**

DEPT: **CG** (GRADE OF TOL. DIM. C/M/F)

SCALE: **NTS**

WEIGHT(KG):

DATE: 01.02.02

NO. OF SHEETS: 1

DRAWING NO.: RD 99 320 300

SHEET NO.: 1

NO. OF ITEMS: 1

REV.:

| INVENTORY NO. | SIGN. AND DATE | REF. DRG. NO. |
|---------------|----------------|---------------|
|               |                |               |

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| REV. | DATE      | ALTERED | CHECKED | ZONE |
|------|-----------|---------|---------|------|
| 1    | 19/2/2000 |         |         |      |

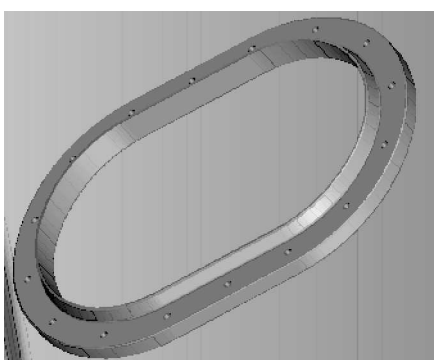
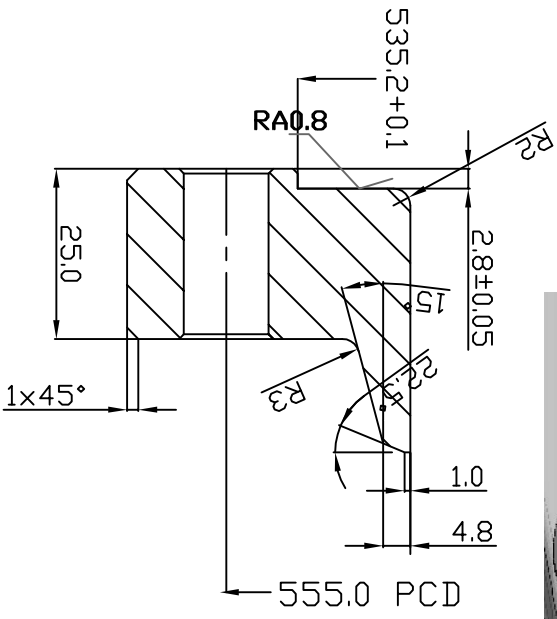
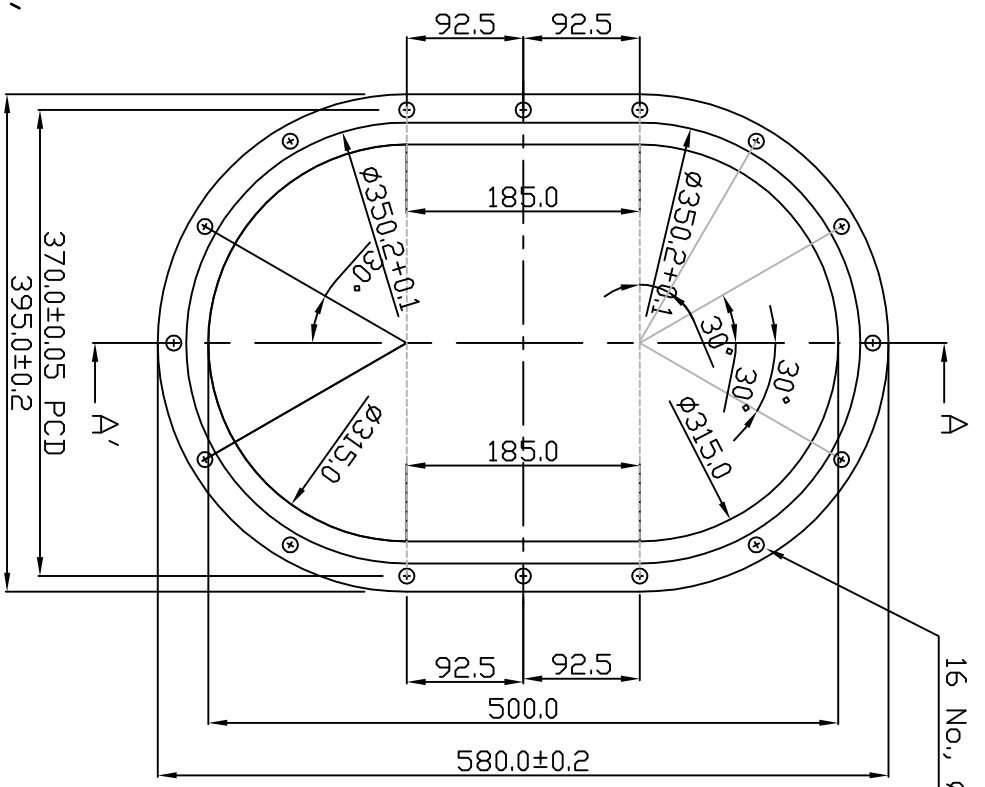
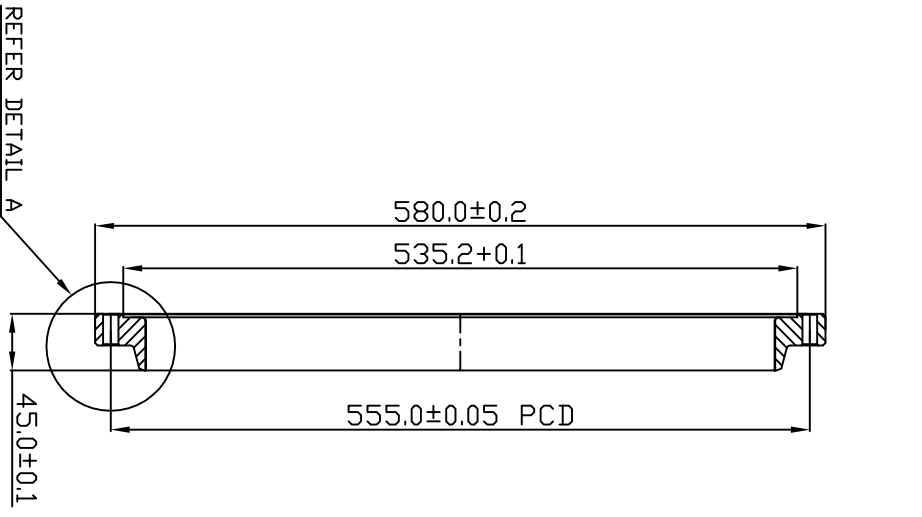
FINAL ON 04/12/08

| REV. | DATE | ALTERED | CHECKED | ZONE |
|------|------|---------|---------|------|
|      |      |         |         |      |

| REV. | DATE | ALTERED | CHECKED | ZONE |
|------|------|---------|---------|------|
|      |      |         |         |      |

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INVENTORY NO.      SIGN. AND DATE      REF. DRG. NO.



D-RING GROOVE SHALL BE SURFACE FINISHED TO RA0.8  
INNER SURFACE SHALL BE FINISHED TO RA0.8  
COMPONENT SHALL BE MATCHED TO COUNTER FLANGE  
ALL HOLES SHALL BE MADE FROM ZIG BORING

**SECTION A-A'**

**DETAIL A**

| VAR. NO. | REMARKS | VAR. ITEM NO. | DESCRIPTION | DR. NO. | IT. NO. | MATL. CODE | UNIT | QTY. |
|----------|---------|---------------|-------------|---------|---------|------------|------|------|
| 01       |         |               | PLATE       |         |         | SS-304     | 01   |      |

| REV. | DATE | ALTERED | CHECKED | REV. | DATE | ALTERED | CHECKED |
|------|------|---------|---------|------|------|---------|---------|
| ZONE |      |         |         | ZONE |      |         |         |
|      |      |         |         |      |      |         |         |

TYPE OF PRODUCT: **GSM145**  
NAME OF CUSTOMER: **BHARAT HEAVY ELECTRICALS LTD. HYDERABAD**

|      |     |           |       |            |
|------|-----|-----------|-------|------------|
| DEPT | GSG | TOL. DIM. | SCALE | WEIGHT(KG) |
| CODE | 35  | C/M/F     | NIS   |            |

DRN NO: RD 99 320 300  
SHEET NO: 1

DATE: 01.02.02

NO. OF ITEMS: 6

REV. NO: 0

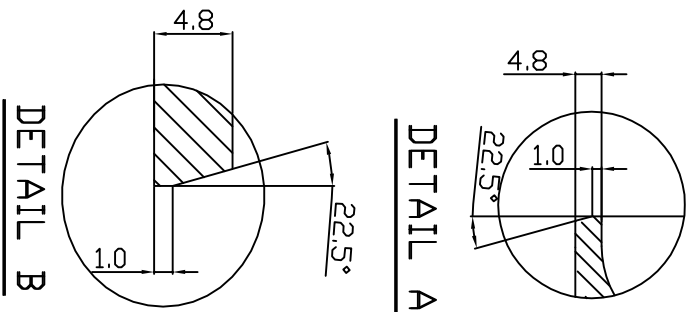
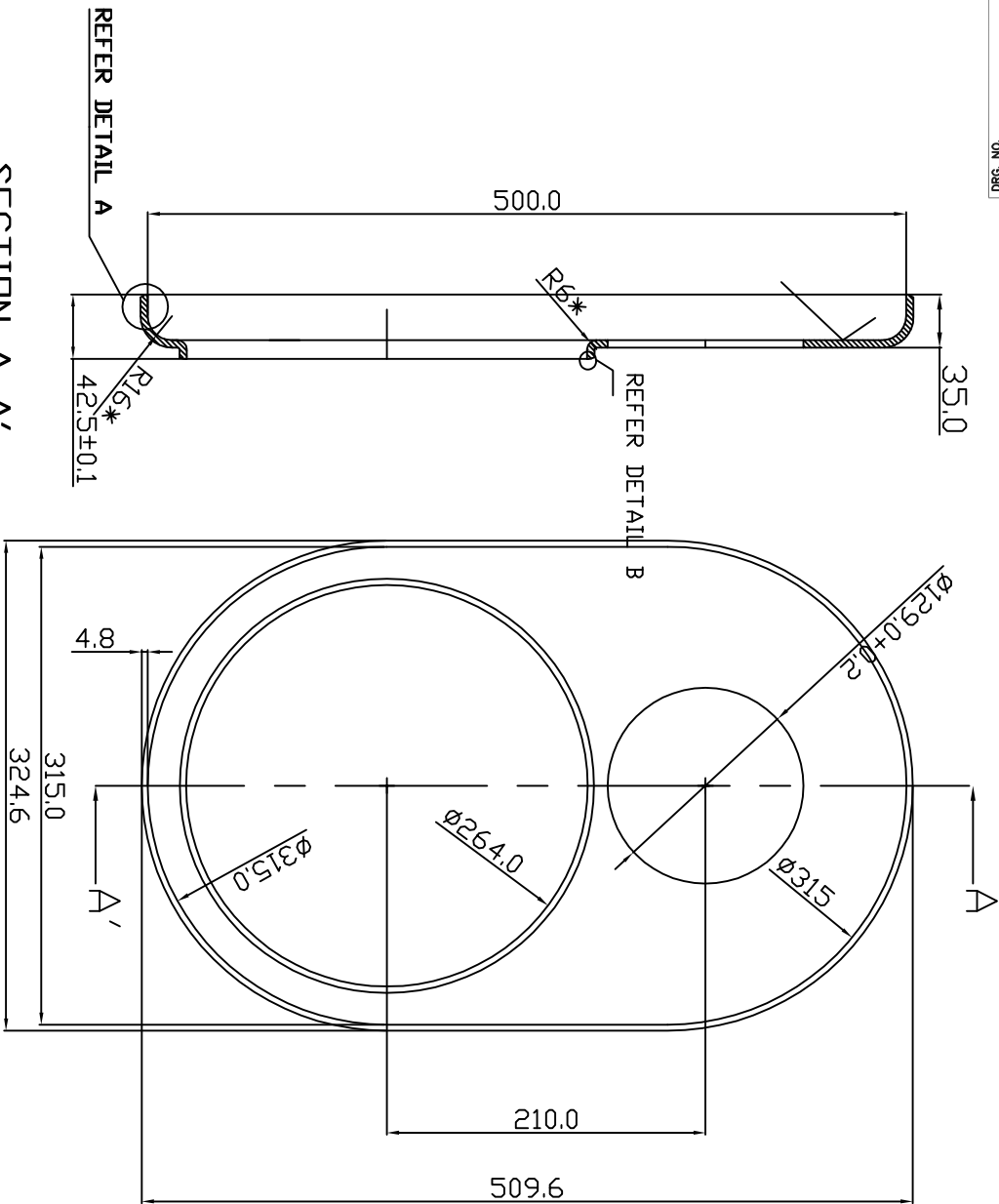
**FLANGE**

DRWING NO. RD 99 320 301

SHEET NO. NO. OF SHEETS

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INVENTORY NO.      SIGN. AND DATE      REF. DRG. NO.



SECTION A-A'

\* MINIMUM OF THIS RADIUS SHALL BE MAINTAINED AS SPECIFIED.

ALL SHARP EDGES SHALL BE MACHINED TO 0.4X45°

| VAR. NO. | REMARKS | VAR. ITEM NO. | DESCRIPTION | DR. NO. | IT. NO. | MATL. CODE | MATL. SPECN. | UNIT | QTY. |
|----------|---------|---------------|-------------|---------|---------|------------|--------------|------|------|
| 01       |         |               | SHEET       |         |         | SS-304L    |              |      | 01   |

TYPE OF PRODUCT  
NAME OF CUSTOMER  
**GSM145**

BHARAT HEAVY ELECTRICALS LTD.  
HYDERABAD



DEPT. CODE 35  
GRADE OF TOL. DIM. C/M/F  
SCALE NTS  
WEIGHT(KG)

DRN. NO. 99  
J.M. RAO  
15 JAN  
REF. TO RD 99 320 300  
DATE 01/02/02  
NO. OF VARS. 0

| REV. | DATE      | ALTERED CHECKED | REV. | DATE | ALTERED CHECKED |
|------|-----------|-----------------|------|------|-----------------|
| 1    | 19/2/2000 | CHECKED         |      |      |                 |

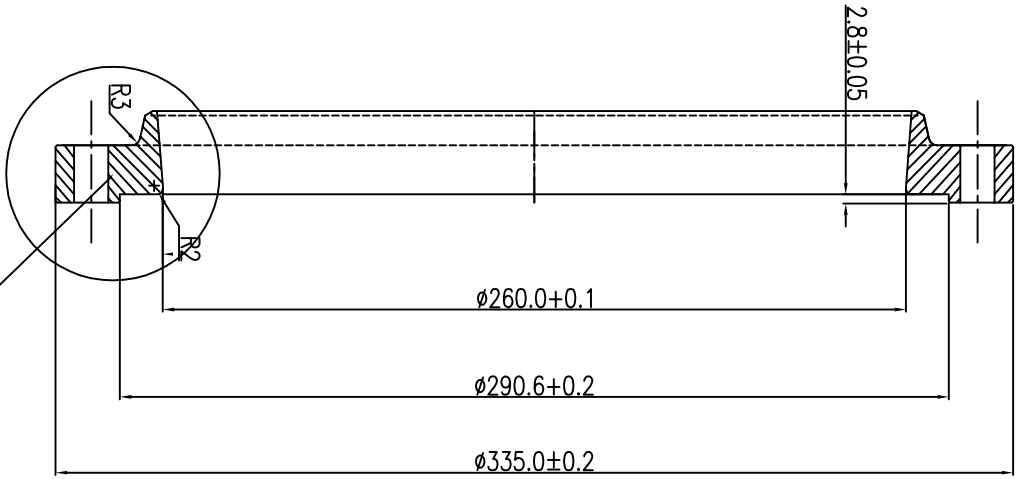
FINAL DN 04/12/08

DISH

CARD CODE RD 99 320 302  
SHEET NO. 10  
NO. OF SHEETS

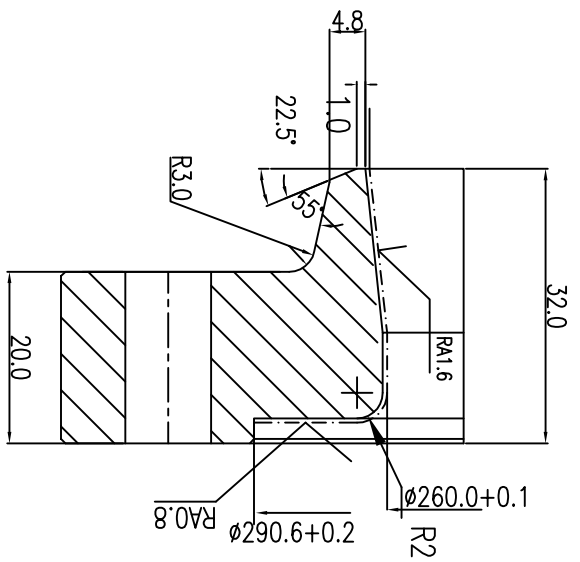
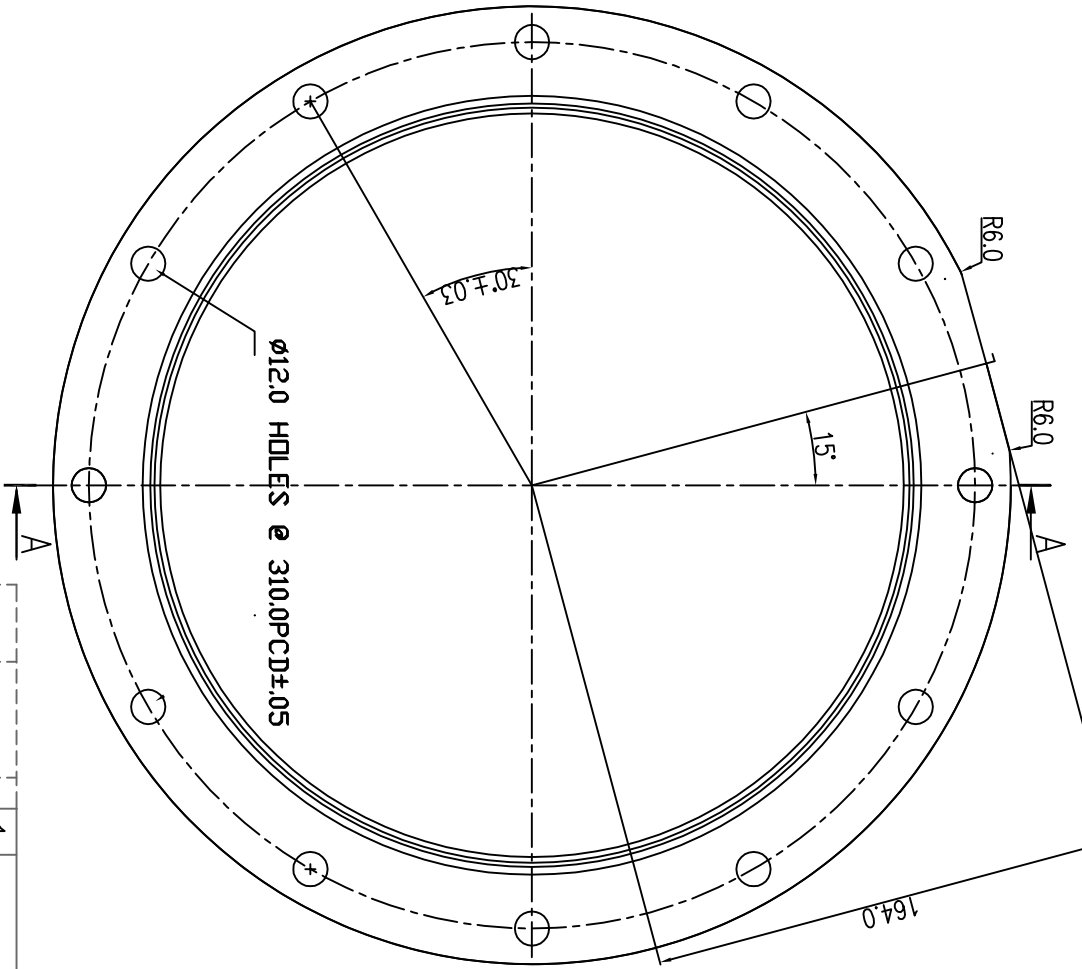
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INVENTORY NO. SIGN. AND DATE REF. DRG. NO.



SECTION A A

REFER A



DETAIL-A

REMOVE ALL SHARP CORNERS 0.8 X 45°  
O-RING SEATING SURFACE SHALL BE FINISHED TO RA0.8

| REV.              | DATE | ALTERED | CHECKED |
|-------------------|------|---------|---------|
| ZONE              |      |         |         |
| FINAL ON 04/12/08 |      |         |         |

| REV. | DATE | ALTERED | CHECKED |
|------|------|---------|---------|
| ZONE |      |         |         |

| REV. | DATE | ALTERED | CHECKED |
|------|------|---------|---------|
| ZONE |      |         |         |

TYPE OF PRODUCT: GSM145  
NAME OF CUSTOMER: BHARAT HEAVY ELECTRICALS LTD. HYDERABAD

|                        |       |            |           |       |         |
|------------------------|-------|------------|-----------|-------|---------|
| DEPT. / GRADE OF C/M/F | SCALE | WEIGHT(KG) | DRN. NAME | SIGN. | DATE    |
| GSM145                 | NTS   |            | KS RAO    |       | 1.02.02 |
| APPD. HS JAIN          |       |            | MM RAO    |       | 1.02.02 |
| REF. TO                |       |            |           |       |         |
| RD 99 320 300          |       |            |           |       |         |

| VAR. NO. | REMARKS | VAR. ITEM NO. | DESCRIPTION | PL. NO. | DRAWING NO. | VAR. | ST. STEEL | MATL. CODE | A | UNIT W.T. | NO. OF |
|----------|---------|---------------|-------------|---------|-------------|------|-----------|------------|---|-----------|--------|
| 1        |         |               | PLATE       |         |             |      | ASI 304-L |            | 1 |           |        |

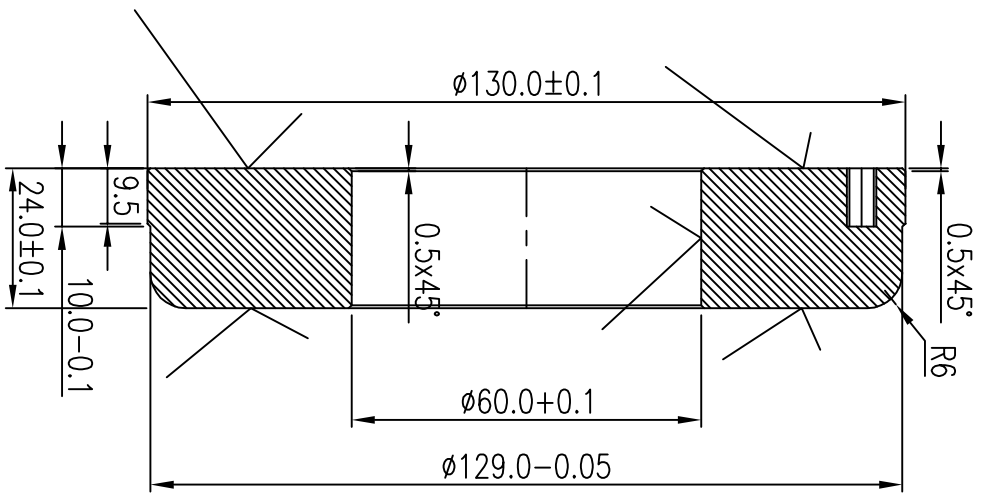
AUX. FLANGE

|                  |             |               |
|------------------|-------------|---------------|
| CARD CODE        | DRAWING NO. | NO. OF        |
| RD 99 320 303 00 |             |               |
| SHEET NO.        |             | NO. OF SHEETS |
|                  |             |               |

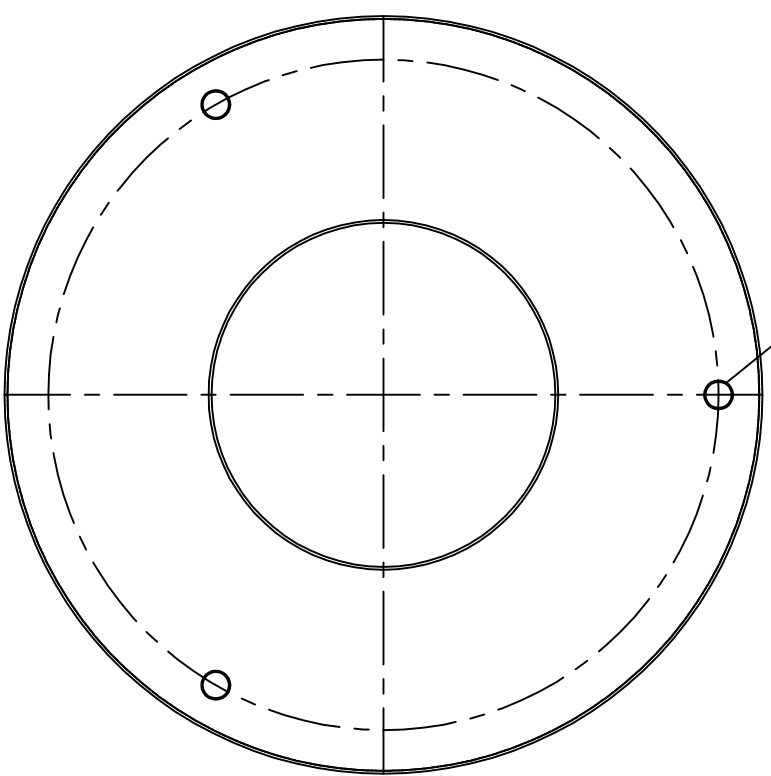


THE INFORMATION ON THIS DOCUMENT IS THE PROPERTY OF BHARAT HEAVY ELECTRICALS LIMITED. IT MUST NOT BE USED DIRECTLY OR INDIRECTLY IN ANY WAY DETRIMENTAL TO THE INTEREST OF THE COMPANY.

INVENTORY NO. SIGN. AND DATE REF. DRG. NO.



3 No., M5 TAPS @ 115.0 PCD, 10.0 deep



ALL SHARP EDGES SHALL BE MACHINED TO 0.4x45°  
 MARKED SURFACE SHALL BE FINE FINISHED TO SUIT SEALING SURFACE.

|          |         |               |             |      |               |          |            |   |      |      |      |
|----------|---------|---------------|-------------|------|---------------|----------|------------|---|------|------|------|
| VAR. NO. | REMARKS | VAR. ITEM NO. | DESCRIPTION | STD. | DRAWING NO.   | TIT. NO. | MATL. CODE | A | UNIT | QTY. | ZONE |
|          |         | 01            | PLATE       |      | Ø130.0 X 25.0 |          | SS-304     |   |      | 01   |      |

TYPE OF PRODUCT: GSM145  
 NAME OF CUSTOMER: BHARAT HEAVY ELECTRICALS LTD.

DEPT: GSM  
 CODE: 35  
 TITLE: ADAPTOR



HYDERABAD  
 NTS

|       |        |       |          |
|-------|--------|-------|----------|
| DEN   | NAME   | SIGN. | DATE     |
| MS RD |        |       | 01/02/02 |
| APPD  | HS JNM |       | 01/02/02 |

|           |                 |           |                 |            |       |             |       |        |       |          |
|-----------|-----------------|-----------|-----------------|------------|-------|-------------|-------|--------|-------|----------|
| REV. DATE | ALTERED CHECKED | REV. DATE | ALTERED CHECKED | DEPT. CODE | SCALE | WEIGHT (KG) | DEN   | NAME   | SIGN. | DATE     |
| ZONE      |                 | ZONE      |                 | 35         | NTS   |             | MS RD |        |       | 01/02/02 |
|           |                 |           |                 |            |       |             | APPD  | HS JNM |       | 01/02/02 |

CARD CODE: RD 99 320 300  
 DRAWING NO.: RD 99320 306  
 SHEET NO.: NO. OF SHEETS

## AUTHORISATION LETTER FOR E-PAYMENT/ NEFT / RTGS

(PLEASE FILL UP THE FORM COMPLETELY IN CAPITAL LETTERS ONLY)

|    |                            |              |
|----|----------------------------|--------------|
| 1  | Type of Request (Tick One) | NEW / CHANGE |
| 2  | BHEL Vendor Code           |              |
| 3  | Company's Name             |              |
| 4  | Address                    |              |
| 5  | City with Pin Code         |              |
| 6  | State                      |              |
| 7  | PAN NUMBER                 |              |
| 8  | Name of Contact Person     |              |
| 9  | Phone No with STD Code     |              |
| 10 | Fax No with STD Code       |              |
| 11 | Email Id                   |              |
| 12 | Web Site (URL)             |              |

### BANK DETAILS FOR EFT / RTGS

|    |                    |                         |
|----|--------------------|-------------------------|
| 1  | Bank Name          |                         |
| 2  | Branch             |                         |
| 3  | Branch Code        |                         |
| 4  | Address            |                         |
| 5  | PHONE No.          |                         |
| 6  | Account No.        |                         |
| 7  | MICR/ IFSC Code    |                         |
| 8  | Bank Swift Code    |                         |
| 8  | NEFT/ RTGS enabled | Yes / No                |
| 10 | Cancelled Cheque   | Enclosed / Not Enclosed |

1. I, as representative / owner of the above named company, hereby authorise BHEL R&D Hyderabad, to electronically make payments to the designated bank account. I hereby certify that the particulars given above are true, complete and correct.
2. If the transaction is delayed or not effected at all for reasons of incomplete or incorrect information, I would not hold BHEL / transferring Bank responsible.
3. This authority remains in full force until BHEL receives and acknowledge written notification requesting a change or cancellation.

Date:

Authorised Signatory  
Designation :

COMPANY SEAL



RD:MPX:F-20

**General Terms and Conditions of Enquiry & Contract for the Purchase of Goods/ Services**

1. The quotation and any order resulting from this enquiry shall be governed by these General Terms and Conditions of enquiry and contract for the supply of goods and the supplier quoting against this enquiry shall, unless specifically stipulates any different terms or conditions, be deemed to have read and agreed to the same.
2. Sealed quotations in double cover with tenderer's distinctive seal, superscribing enquiry number, date and due date are to be submitted so as to reach on or before due date & time, addressed to **Additional General Manager(MM) and Head, Bharat Heavy Electricals Limited, Corporate Research & Development Division, Vikasnagar, Hyderabad, Andhra Pradesh, India – PIN-500 093, India.**  
In the case of **Two-part bid**, each inner cover shall clearly be labeled as a) **Technical & Commercial Bid** containing technical data/ drawings/ catalogues/ quality plans along with commercial terms and conditions & copy of the price bid with the price columns left blank (unpriced price bid), b) **Price bid** containing prices quotes. Installation and/or Commissioning charges shall be spelt out in absolutely lucid terms, taking into account total charges, rather than quoting vaguely, such as charges per man-day or charges per engineer per day etc. **If the price bid was found later to be different from the unpriced price bid in any way, the offer will be rejected summarily.**
3. **Tender/ Technical bid Opening:** Unless specified otherwise, tenders/ technical bids will be opened on appointed date and time as mentioned in the enquiry or as communicated changed date/time, if any, in the presence of such of those tenderers who may be present.
4. **Delayed/ Late Tender:** Tenders, which have been posted by registered post through the postal department in time before opening date but received after tender opening, shall be treated as regular tenders. Other tenders received after tender opening time shall be treated as late tenders and normally they may be rejected.
5. The Quotation should be free from overwriting and erasures. Corrections and additions, if any, must be attested. Supplier should indicate in the quotation dimensions (Size), weight, rate etc., in the metric system unless the enquiry calls for different unit.
6. **Validity of Quotation:** All quotations shall be kept open for acceptance for a period of ninety days from the date of opening of Tenders/ Technical bid and this shall be deemed to be an express condition of all quotations. The rate shall be quoted in both figures and in words.
7. In the case of Two-part bid, the vendor should furnish technical clarifications, if any, within stipulated time mentioned, failing which, it will be construed that the vendor is not interested in the tender and BHEL shall not consider the offer for further evaluation.
8. **Revision of Pricebid:** In the event of any bidder, after finalizing the technical specifications and scope of supply, opting to revise and submit their latest price bid, then BHEL reserves the right to open their original / previous price bid also while evaluating revised bid.
9. **Pricebid Opening:** Unless specified otherwise in the enquiry, the Price bids of technically qualified vendors shall be opened with prior intimation in the presence of such of those tenderers who may be present.
10. **Conformity to Specifications:** The material should be of the best quality and shall be conforming to our specification given in our enquiry. Unless otherwise agreed upon by BHEL, no payment shall be due by BHEL in respect of any sample. Offers without details of specifications/ applicable catalogues will not be considered and are liable to be rejected.
11. **Terms of Delivery:** All suppliers shall quote the lowest prices on ex-works and FOB/FCA basis. Foreign suppliers will also indicate their Indian agent's name and address with percentage of agency commission out of the quoted price, if any. Name and Address of the supplier's Bankers address should also be given. Indian suppliers for the indigenously manufactured/ imported stock shall quote on Ex-works /Free-on-Rail/Road /FOR-destination basis, indicating packing & forwarding charges, if any, separately.
12. **Taxes and Duties:** Unless specified otherwise in the enquiry, BHEL do not provide "C" or "D" Form as it is engaged in R&D. All Indian suppliers shall clearly mention current Sales Tax/ VAT, Excise Duty, and Service Tax etc, if any, payable in addition to the quoted price and indicate applicable rates/ percentage, item-wise clearly. It will be paid only if Registration Number under State(TIN)/ Central Sales Tax or Service Tax is specifically mentioned in the Bill/Invoice. Vendors without a Sales Tax/VAT registration and applicable Service Tax registration will not be considered.
13. **Insurance:** Insurance will be arranged by BHEL in case of Ex-Works as well as FOB basis supplies.
14. **Terms of Payment:** Full payment will be made within 30 days after receipt, inspection and acceptance of the material (and where involved, Erection and commissioning of the material/ equipment at BHEL/Destination) through Electronic Fund transfer (RTGS/NEFT/SEFT) with bank charges to the supplier's account. For foreign suppliers, the preferred payment term will be on Sight Draft basis and bank charges inside India will be to BHEL account and outside India will be to supplier's account.
15. Suppliers shall quote competitive price and best delivery for all the items mentioned in the enquiry. BHEL reserves the right to reject partial quotations and to place order on overall landed cost basis. Correct date of effecting supplies in the event of an order should be indicated in the offer. If the supplier's quoted terms are different from BHEL standard payment terms (Refer #14 above), interest @11% per annum (or as indicated in the enquiry) will be loaded to the quoted prices for difference of payment period.
16. **Packing:** The supplier shall be responsible for the goods being properly and adequately packed so as to prevent any loss, damage or deterioration during transit and indicate packing charges, if any, separately.
17. **Part/ Split Ordering:** BHEL reserves right to Order part of the item/ quantity of the enquiry and split the order among qualified vendors.
18. In case the goods enquired are on Rate Contract basis with any other unit of BHEL, such fact should be clearly indicated in the quotation giving full particulars of Rate Contract number, validity and price and also your willingness to comply with order if placed against such Rate Contract. A true copy of Rate contract signed by the supplier should be sent with the quotation.
19. **Inspection:** On receipt, the goods shall be subjected to inspection and also test, if necessary, and our decision regarding the acceptability of the goods shall be final and binding on the suppliers.
20. **Penalty for late delivery:** The time stipulated for delivery of goods shall be deemed to be the essence of the contract and delivery must be completed within the stipulated date/s. In the event of supplier's failure to supply the goods by the stipulated date/s, a penalty of ½% per week for the delayed no of weeks or part thereof for the undelivered portion of PO subject to a maximum of 10% of total order value shall be levied at the discretion of BHEL.
21. **Withdrawal from the Contract:** In case the supplier withdraws the quotation after its acceptance by BHEL or fails to supply the goods as per the terms and conditions of contract, or at any time repudiated the contract wholly or in part, BHEL shall be at liberty to cancel the Purchase Order and to recover from the supplier the extra cost and other loss, incidentals due to the breach of contract on the part of the supplier through risk purchase.
22. **Guarantee/ Warranty certificate and Manufacturer's Test report:** Invariably in all cases where it is so stipulated, the supplier should furnish Guarantee/ Warranty certificate valid for a period of 18 months from date of supply or 1 year from the date of receipt, acceptance and commissioning(or more, if provide by oem) whichever earlier and manufacturer's Test report along with the goods, failing which, BHEL shall have the right to reject the goods.
23. All ferrous/ non-ferrous items shall be colour coded as per bureau of Indian standards/ or IS standards/ BHEL Standards.
24. **Recovery of Dues:** BHEL shall recover any amount due from the supplier or any amount outstanding to the credit of the supplier with BHEL R&D unit or any other BHEL unit(s) and/or by legal action.
25. **Arbitration & Forum for Legal Proceedings:** All disputes arising in connection with indigenously/ foreign supplies shall be settled through arbitration held at Hyderabad, AP, India and arbitration shall be appointed by Arbitration Tribunal of the Federation of Andhra Pradesh Chambers of Commerce and Industry, Hyderabad, AP, India. The Courts at Secunderabad/ Hyderabad, AP, India shall have jurisdiction in respect of any suit or other legal proceeding arising from or relating to this contract

The rights and remedies of BHEL stated in these General terms and conditions shall be in addition and supplemental to its rights and remedies under law and custom or usage of trade or business and shall in no way be deemed to limit, curtail, supercede or derogate from its said rights and remedies.



RD:MPX:F-18

**BHARAT HEAVY ELECTRICALS LIMITED**  
**CORPORATE R&D Division**  
**Vikasnagar, Hyderabad, Andhra Pradesh, India – 500093.,**

**IMPORTED**

**Suppliers' compliance statement to basic conditions of enquiry** (to be submitted along with Technical & Commercial bid)  
**Enquiry number:** **Enquiry dt:**

**(In case Order to be placed on the Principal and foreign currency)**

| Condition                    | BHEL R& D's terms   | Supplier's compliance<br>(indicate Yes/No. if 'No', state terms desired) |
|------------------------------|---|--|
| 1. Validity of offer         | 90 days from the tender opening date ( or as per enquiry)   |  |
| 2. Delivery requirements     | FCA – Nearest International Airport (or as indicated in the enquiry)  |  |
| 3. Warranty                  | Unless specifically mentioned in the enquiry, all supplied items to be provided with warrantee for one year (or more, if provided by the OEM) from the date of acceptance/ commissioning. In case of equipment involving erection and commissioning, warrantee shall be for 18 months from the date of dispatch or 12 months from the date of commissioning, whichever is earlier |  |
| 4. Terms of payment          | Sight draft. All bank charges inside India will be to BHEL R&D account and outside India will be to the supplier's account. Documents through State Bank of India, Trade Finance Central processing Cell (TFCPC), Opp. Anand Theatre, Secunderabad, Andhra Pradesh, India-500003.<br>SWIFT Code: SBININBB602,<br>Phone: 91-40-27816795, FAX: 91-40-27720459                       |  |
| 5. Agency commission         | Pl specify Indian agency commission charges, if any, in percentage of quotation. The same shall be paid to the agency in Indian Currency only.  |  |
| 6. Erection/ Commission      | As per enquiry  |  |
| 7. Documentation             | As per enquiry  |  |
| 8. Insurance                 | BHEL will arrange Insurance based on intimation to our Insurance agency. Address of the agency will be mentioned in the Purchase Order.   |  |
| 9. Penalty for late delivery | 0.5% per week beyond the delivery date on undelivered portion subject to a maximum of 10% of the total order value.   |  |

\* BHEL R&D reserves the right to reject any offer due to non-compliance with the above conditions and/or non-receipt of this form in duly filled condition

\* Any other elements of cost in addition to the above may please be specified in detail

**(Signature and Stamp/ Seal of Vendor)**



RD:MPX:F-17

**BHARAT HEAVY ELECTRICALS LIMITED**  
**CORPORATE R&D Division**  
**Vikasnagar, Hyderabad – 500093, India.**

**Suppliers' compliance statement to basic conditions of enquiry** (to be submitted along with Technical & Commercial bid)  
**Enquiry number::** **Enquiry date::**

**(In case Order to be placed on Indian supplier in Indian currency)**

| <b>Condition</b>             | <b>BHEL R&amp; D's terms</b>   | <b>Supplier's compliance</b><br>(indicate Yes/No. if 'No', state terms desired) |
|------------------------------|--|---|
| 1) Validity of offer         | Unless specifically mentioned in the enquiry, 90 days from the tender opening date   |   |
| 2) Delivery requirements     | Free delivery at our stores or FOR destination (or as indicated in the enquiry)  |   |
| 3)Warranty                   | Unless specifically mentioned in the enquiry, all supplied items to be provided with warrantee for one year (or more, if provided by the OEM) from the date of acceptance/commissioning. In case of equipment involving erection and commissioning, warrantee shall be for 18 months from the date of despatch or 12 months from the date of commissioning, whichever is earlier |   |
| 4) Terms of payment          | Unless specifically mentioned, full payment will be made within thirty days after receipt, inspection and acceptance of the material at BHEL R&D (and where involved, erection and commissioning of the material/equipment at BHEL/destination), by EFT/RTGS with bank charges, if any, to supplier's account.   |   |
| 5) Taxes & Duties            | Unless specifically mentioned in the enquiry, we do not provide 'C' or 'D' form. Supplier to specify rates of taxes and duties element wise and related percentages. Terms like "inclusive" or "extra" are not acceptable. Please mention "NIL" if taxes/duties are exempted/ not applicable.  |   |
| 6) Penalty for late delivery | 0.5% per week beyond the delivery date on undelivered portion subject to a maximum of 10% of the total order value   |   |

\* BHEL R&D reserves the right to reject any offer due to non-compliance with the above conditions and/or non-receipt of this form in duly filled condition

\* Any other elements of cost in addition to the above may please be specified in detail

**(Signature and Stamp/Seal of Vendor)**



RD:DP:MPX:F-14

**BHARAT HEAVY ELECTRICALS LTD.**  
**Corp. R&D DIVISION**  
**VIKAS NAGAR,**  
**HYDERABAD- 500 093 (INDIA)**

**SUPPLIER REGISTRATION FORM**

**(FOREIGN SUPPLIER)**

ALL COLUMNS SHOULD BE PROPERLY FILLED IN THE SPACE PROVIDED FOR. WHEREVER IT IS NOT APPLICABLE PLEASE WRITE "NOT APPLICABLE". INCOMPLETE OR INCORRECT FORMS MAY NOT BE CONSIDERED.

**1.0 GENERAL INFORMATION:**

1.1 ....NAME OF COMPANY

1.2 ....DETAILS OF HEAD OFFICE:

ADDRESS :  
TELEPHONE :  
FAX :  
.EMAIL :  
.WEB SITE :

1.3 ....DETAILS OF FACTORY/WORKS:

ADDRESS :  
TELEPHONE :  
FAX :  
.EMAIL :  
.WEB SITE :

1.4 ....DETAILS OF MARKETING AGENT

ADDRESS :  
TELEPHONE :  
.FAX :  
.EMAIL :  
.WEB SITE :

1.5 CHIEF EXECUTIVE

1.6 CONTACT PERSON(S)  
FOR PRODUCT OFFERED  
NAME(S)  
OFFICIAL CPACITY  
ADDRESS:  
TELEPHONE  
FAX  
E-MAIL

1.7 YEAR OF ESTABLISHMENT

1.8 PRODUCTION CAPACITY PER ANNUM

1.9 PARTICULARS OF PRODUCT INCLUDING  
SPECIFICATION AND RANGE OFFERED  
FOR REGISTRTION  
(ATTACH BROUCHERS AND CATALOGUE)

1.10 NAME(S) OF BANKERS

1.11 BANKER'S CERTIFICATE

1.12 PORT OF LOADING

1.13 NEAREST AIRPORT

1.14 NAME OF THE INDIAN AGENT, IF ANY  
WITH AUTHORISATION LETTER

## **2.0 FINANCIAL INFORMATION**

2.1 ...TOTAL CAPACITY

2.2 ...ANNUAL TURN OVER FOR LAST 3 YEARS

2.3 ...WHEHER CREDIT LICENSE ACCEPTABLE      YES/NO

## **3.0 QUALITY MANAGEMENT SYSTEMS ENCLOSED FORMAT PART-B**

3.1 EXPERIENCE LIST FOR SAME/SIMILAR ITEMS  
TO BE ENCLOSED

## **4.0 .....FUTURE EXPANSION PLANS: (GIVE DETAILS)**

**5.0 LIST OF ENCLOSURES:**  
INCLUDING BROUCHERS, CATALOGUES, TECHNICAL  
LITERATURE ETC.

## **6.0 ANY OTHER INFORMATION**

SIGNATURE OF SUPPIER ( AUTHORIZED SIGNATORY)

NAME

DESIGNATION

DATE

.....OFFICIAL SEAL

---

Note: Please attach separate sheets, if space found is inadequate



**BHARAT HEAVY ELECTRICALS LTD.**

**Corp. R&D DIVISION**

**VIKAS NAGAR,**

**HYDERABAD- 500 093 (INDIA)**

**Ph: 040 – 23778474, Fax: 040 – 23770698, email: mpx@bhelrnd.co.in**

RD:DP:MPX:F-13

**VENDOR REGISTRATION FORM**

(Indigenous supplier)

**[FORM TO BE SUBMITTED\* BY THE BIDDER ALONG WITH TECHNICAL-BID]**

**Before filling, please refer to instructions on page-4**

**1.0 VENDOR PROFILE:**

**1.1 Name and address of the vendor:**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Phone Nos.:

Fax No.:

Email: 1. \_\_\_\_\_ 2. \_\_\_\_\_

**1.2 Local representative name & address in Hyderabad/  
Secunderabad:**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Phone Nos.:

Fax No.:

Email:

Contact person:

Mobile No.:

**2.0. TYPE OF ORGANIZATION:**

|                |             |   |                            |
|----------------|-------------|---|----------------------------|
| PROPRIETORSHIP | COMPANY     | SISTER CONCERN ( mention vendor registration number of main organization) |                            |
| PARTNERSHIP    | CORPORATION | Small Scale Industry  | ANY OTHER (Please specify) |
|                |             |   |                            |

In case of SSI unit, copy of registration to be enclosed.

**3.0 ANNUAL TURN OVER:**

| # | Year                      | Turn-Over |
|---|---------------------------|-----------|
| 1 | Current Year(budgeted)    |           |
| 2 | Previous year ( 200 - 0 ) |           |
| 3 | Prior Year ( 200 - 0 )    |           |

**4.0 NAME AND ADDRESS OF THE BANKER:**

1. Bank Name
2. Branch name
3. Account number
4. Account Type
5. MICR Code:
6. IFSC Code(RTGS/NEFT):
7. Bank Phone number(s),

Blank cheque, duly cancelled, to be enclosed.

Please note that all payments shall be made through Electronic clearance services to your above account against the orders executed, if any.

**5.0 REGISTRATION PARTICULARS ( relevant copies to be enclosed)**

- 5.1 IT Permanent Account No.(PAN):
- 5.2 State sales tax/VAT Registration No.:
- 5.3 Central Sales Tax Registration No.
- 5.4 ED Registration No.
- 5.5 Service Tax Registration No.:
- 5.6 PF Account No.:
- 5.7 Labour Licence No.:
- 5.8 ESI Account No.:

**6.0 CONTACT PERSON:** S/Sri

Designation:::

Phone/ Mobile No. :

**7.0 TOTAL NUMBER OF EMPLOYEES:**

| Graduates<br>(Engr./Scientists/<br>Mgmt/Fin.) | Consultants | Workers      |             |           |
|---|-------------|--------------|-------------|-----------|
|   |             | Sup./Skilled | Semiskilled | Unskilled |
|   |             |              |             |           |
|   |             |              |             |           |
|   |             |              |             |           |

**8.0 WISH TO REGISTER FOR SUPPLIES/SERVICES:**

| # | Service/Supplies | Capacity |
|---|------------------|----------|
| 1 |                  |          |
| 2 |                  |          |
| 3 |                  |          |
| 4 |                  |          |
| 5 |                  |          |
| 6 |                  |          |
| 7 |                  |          |

**9.0 REFERENCE LIST :**

(Only recognized public and private sector companies, attach if printed copy available)

| # | Customer | Volume / Year |
|---|----------|---------------|
| 1 |          |               |
| 2 |          |               |
| 3 |          |               |
| 4 |          |               |
| 5 |          |               |
| 6 |          |               |
| 7 |          |               |

**10.0 INFRASTRUCTURE / FACILITIES:**

| #  | Facility (with specifications) | Age/ Year procured |
|----|--------------------------------|--------------------|
| 1  |                                |                    |
| 2  |                                |                    |
| 3  |                                |                    |
| 4  |                                |                    |
| 5  |                                |                    |
| 6  |                                |                    |
| 7  |                                |                    |
| 8  |                                |                    |
| 9  |                                |                    |
| 10 |                                |                    |

**11.0 REGISTRATION WITH OTHER BHEL UNIT/UNITS:**

| # | Unit | Registration No. | Year |
|---|------|------------------|------|
| 1 |      |                  |      |
| 2 |      |                  |      |
| 3 |      |                  |      |
| 4 |      |                  |      |

## 12.0 ANY OTHER INFORMATION :

### DECLARATION:

The information furnished above is true and authentic.

**(CEO / PROPRIETOR)**

**SEAL:**

**DATE:**

---

The competent authority reserves the right to accept or reject the registration. Registered vendors will be informed by mail / email, as convenient. Contact AGM (MM) for clarification/ additional information on registration.

A separate communication will be sent to you in case of non-registration, citing reasons thereof.

---

### Instructions

1. Answer all items; use NA for items not applicable.
2. BHEL units do not require this registration.
3. Use additional sheets for want of space if required.
4. Attach copies of latest documents in respect of items 5.0 (Registration no.s)
5. Photographs of registered office and the chief executive/proprietor shall be furnished.
6. Use A4 sheets for this document and the enclosures.

---

\* REGISTERED BIDDERS, HAVING BHEL (R&D) REGISTRATION NO. OR HAVE SUBMITTED THIS FORMAT FOR REGISTRATION, NEED NOT FURNISH THIS INFORMATION AGAIN