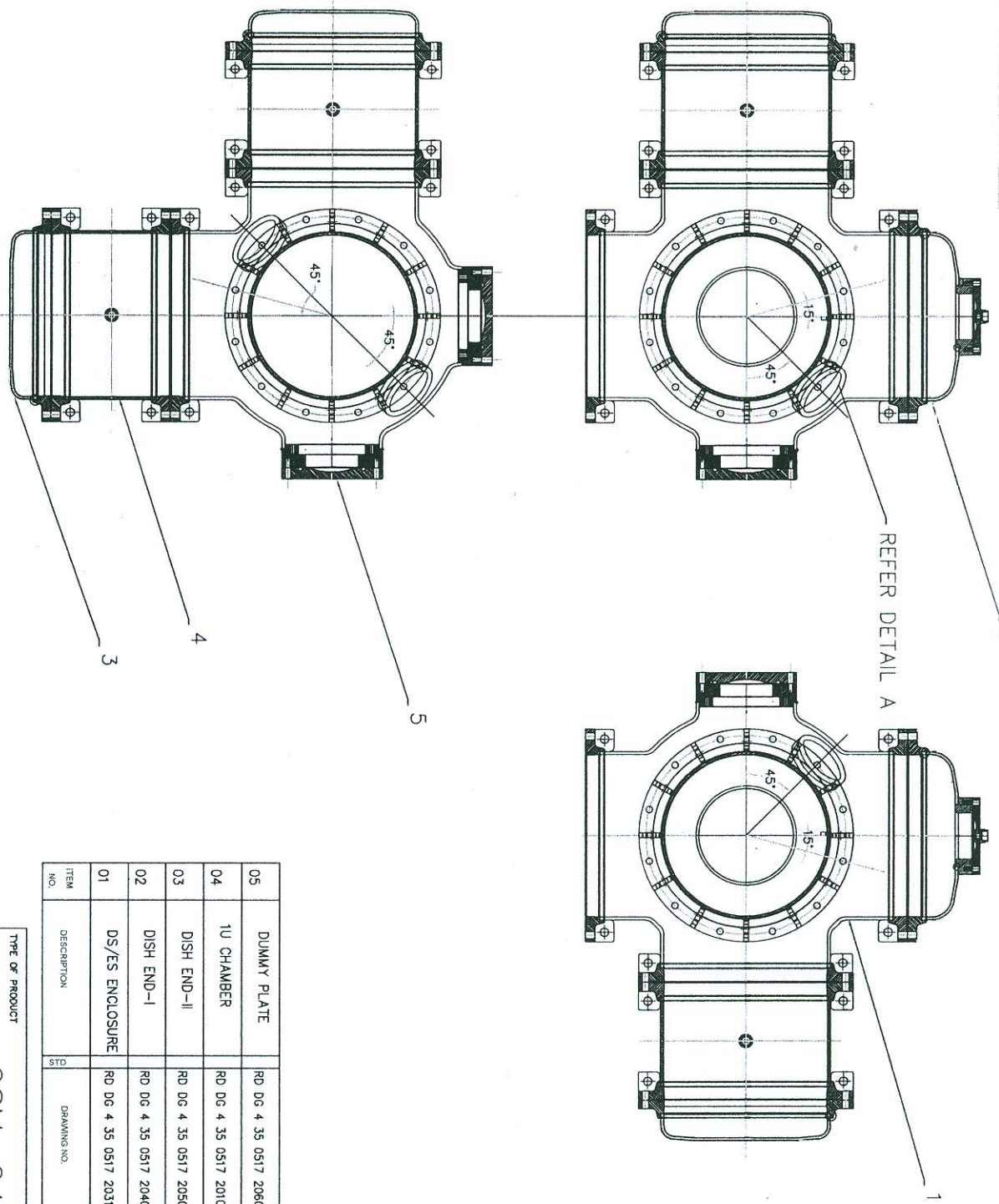


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INVENTORY NO. SIGN. AND DATE REF. DRG. NO.

NOTE:

1. PIPE AND FLANGE TO BE TIG/MIG WELDING WITH SUITABLE SS ELECTRODE
2. THE WELDING ROOT SHOULD BE HOMOGENEOUS AND CONTINUOUS.
3. PRESSURE TEST AS PER SPECIFICATION
4. TESTED ASSEMBLIES TO BE DEGREASED, SAND BLASTED AND POWDER COATED ON OUTSIDE.
5. MAINTAIN PERPENDICULARITY AND PARALLELITY BETWEEN FLANGES WITHIN 0.1°
6. INNER SURFACE OF DS ENCLOSURE AND DISH ENDS SHALL BE ELECTROPOLISHED.



ITEM NO.	DESCRIPTION	STD	DRAWING NO.	IT. NO.	MATL. CODE	MATL. SPECN.	UNIT	UNIT WT.	QTY.	GS	ZONE
05	DUMMY PLATE		RD DG 4 35 0517 2060		SS-304 L			02			
04	1U CHAMBER		RD DG 4 35 0517 2010		SS-304 L			02			
03	DISH END-II		RD DG 4 35 0517 2050		SS-304 L			02			
02	DISH END-I		RD DG 4 35 0517 2040		SS-304 L			02			
01	DS/ES ENCLOSURE		RD DG 4 35 0517 2030		SS-304 L			01			

TYPE OF PRODUCT: GSM-245

NAME OF CUSTOMER: BHARAT HEAVY ELECTRICALS LTD. HYDERABAD

DEPT.: GRADE OF TOL. DIM. C/M/F

SCALE: NTS

WEIGHT(KG):

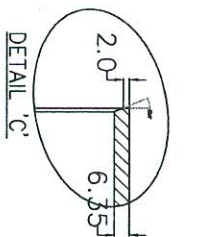
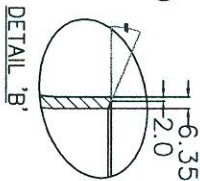
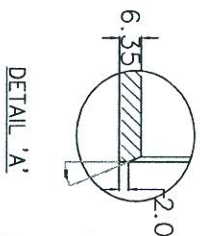
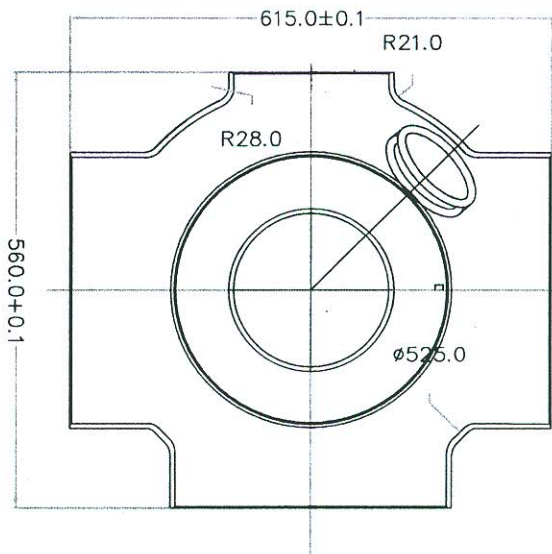
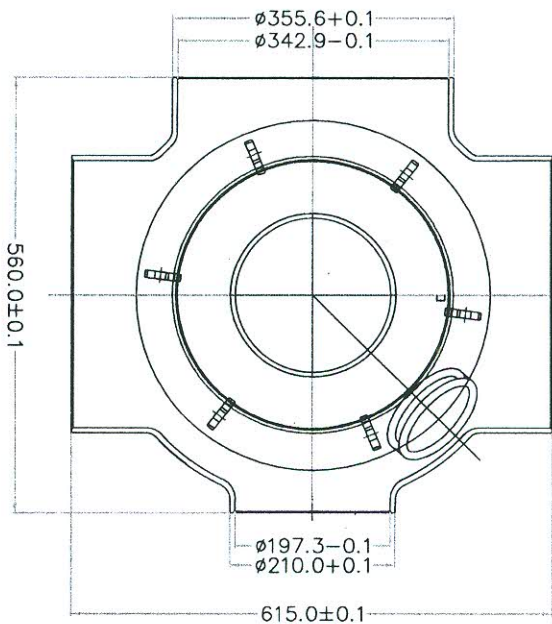
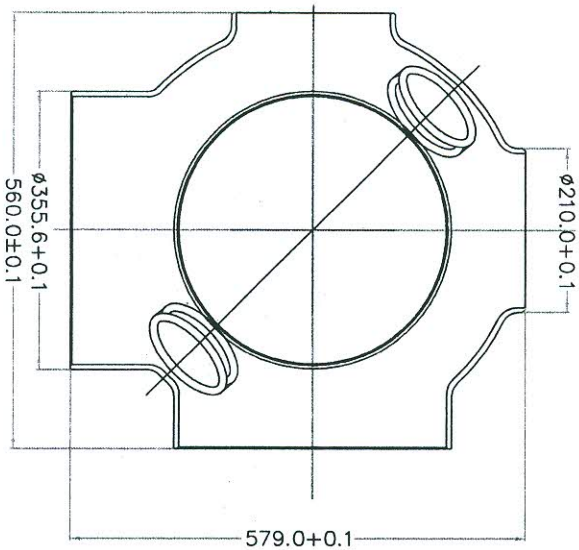
CARD CODE: RD DG 4 35 0517 2000

TITLE: DS/ES ENCLOSURE ASSEMBLY

DRN	NAME	SIGN.	DATE	NO. OF
CHKD	BSM		14/01/13	VAR.
APPR	MMS/AD			01
REF. TO				
RD DG 4 35 0517 2000				
DRAWING NO.				
RD DG 4 35 0517 2030				
SHEET NO.				
NO. OF SHEETS				

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



ISOMETRIC VIEW

VAR. NO.	REMARKS	VAR. NO.	ITEM NO.	DESCRIPTION	STD.	DRAWING NO.	VAR.	UNIT	QTY.	ZONE
			01	SPHERICAL PIPE		RD DG 4 35 0517 2032		SS-304 L	01	

TYPE OF PRODUCT: GSM-245
NAME OF CUSTOMER: BHARAT HEAVY ELECTRICALS LTD. HYDERABAD

DEPT.	GRADE OF	SCALE	WEIGHT(KG)	DRN	NAME	SIGN.	DATE
	C/M/P	NTS		SKD	NSX		14/10/13
				APPD	BSM		14/10/13

REV.	DATE	ALTERED	REV.	DATE	ALTERED
ZONE		CHECKED	ZONE		CHECKED

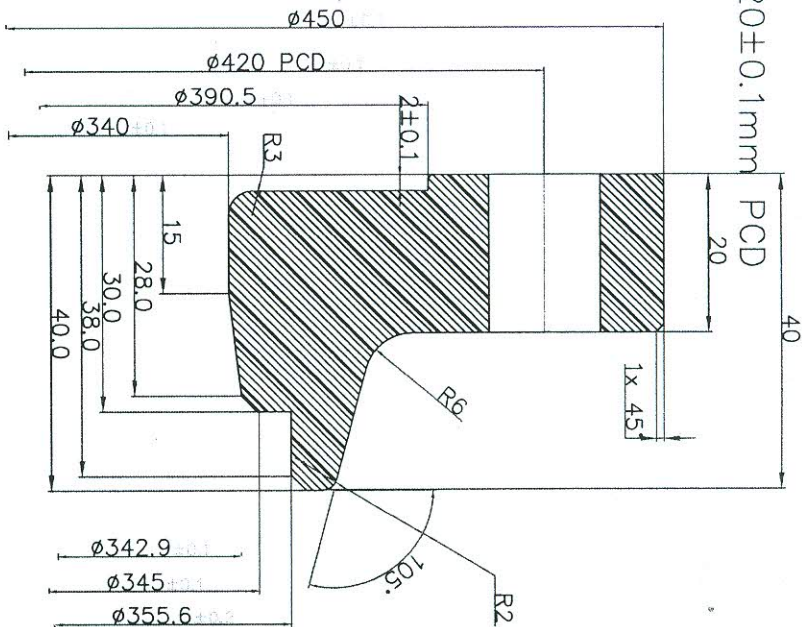
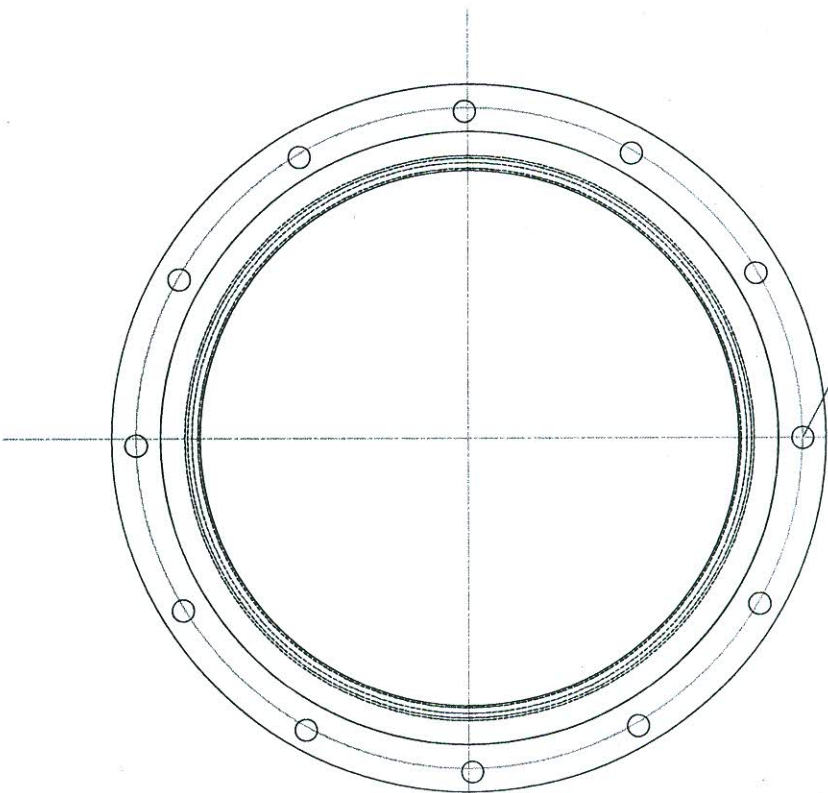
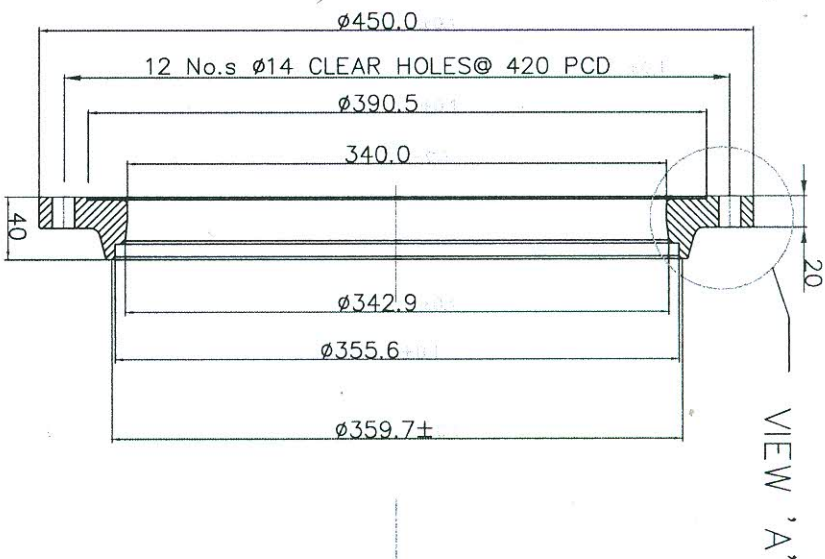
TITLE: SPHERICAL PIPE
 DWT: RD DG 4 35 0517 2032
 SHEET NO. 1 OF 1

DRG. NO. RD DG 4 35 0517 2032

FIRST ANGLE PR TON

(ALL DIMENSIONS ARE IN mm)

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ENLARGED VIEW 'A'

- Note:
1. Sealing area shall be polished to RA 0.8 or better.
 2. ϕ 14.0 holes shall be chamfered uniformly (0.8x45°).
 3. PCD and flange centre shall be concentric within ± 0.05
 4. Finished flange shall be degreased and packed in 125 micron poly bag and sealed.
 5. Component shall be Machined to dimensions after welding to spherical pipe
 6. All sharp edges should be machined at 0.4 x 45°

VAR. NO.	REMARKS	VAR. NO.	ITEM NO.	DESCRIPTION	QTY	UNIT	DATE
		01		BLOCK	2		

TYPE OF PRODUCT: **GSM-245**

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

DEPT: **ENT**

SCALE: **1:1**

DRN: **NSK**

CHKD: **NSK**

APPD: **MMR/AD**

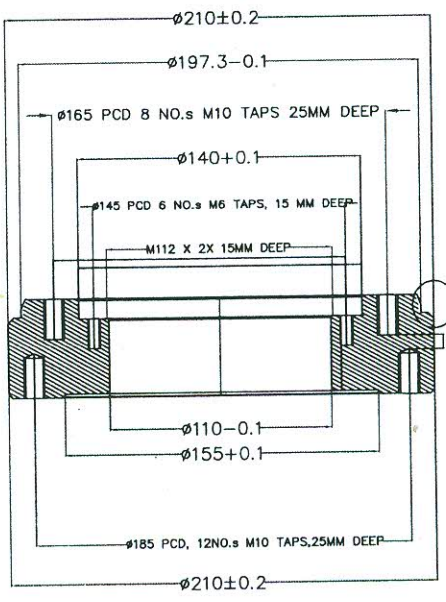
DATE: **06.08.13**

NO. OF SHEETS: **01**

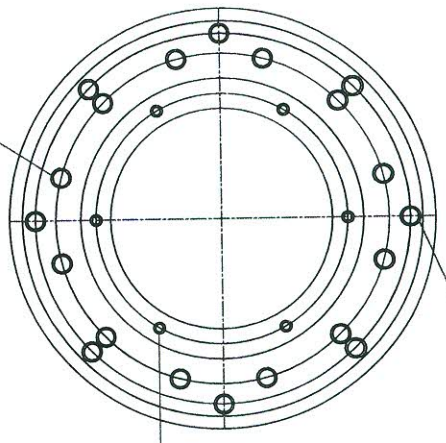
REV.	DATE	ALTERED	CHECKED	REV.	DATE	ALTERED	CHECKED

FLANGE-II

RD DG 4 35 0517 2012 00



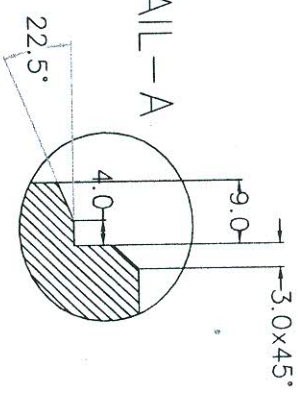
REFER DETAIL 'A'



8 No., M10 TAPS @ 185.0 PCD, 25.0 DEEP

6 No., M6 TAPS @ 125.0 PCD, 25.0 DEEP

DETAIL-A



12 No., M10 TAPS @ 165.0 PCD, 25.0 DEEP

- Note:
1. Sealing area shall be polished to RA 0.8 or better.
 2. ϕ 14.0 holes shall be chamfered uniformly (0.8x45°).
 3. PCD and flange centre shall be concentric within ± 0.05
 4. Finished flange shall be degreased and packed in 125 micron poly bag and sealed.
 5. Component shall be Machined to dimensions after welding to spherical pipe

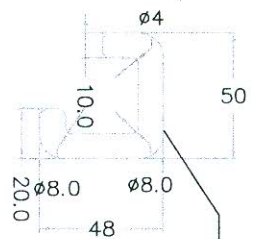
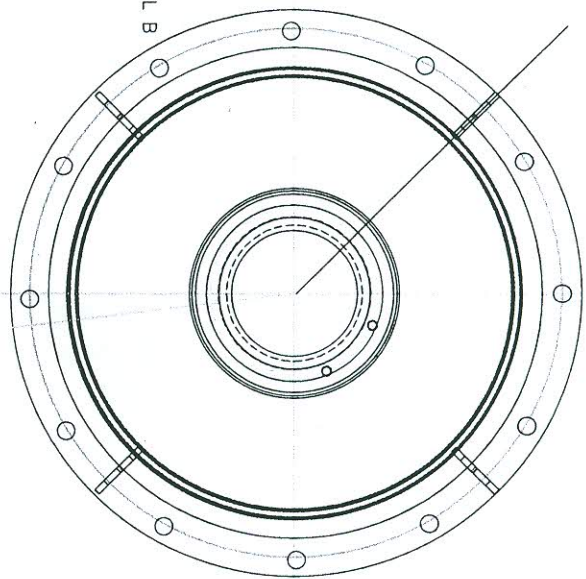
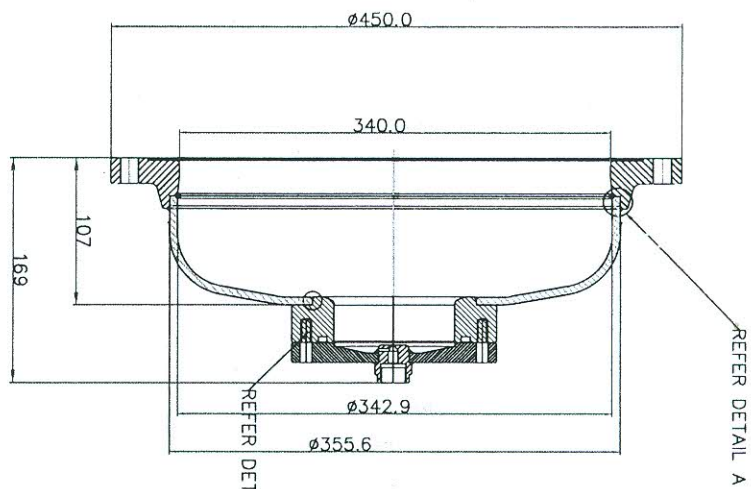
MODIFIED ON 16/09/2015

INVENTORY NO.	SIGN. AND DATE	REF. DRG. NO.
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REV.	DATE	ALTERED	REV.	DATE	ALTERED
ZONE		CHECKED	ZONE		CHECKED

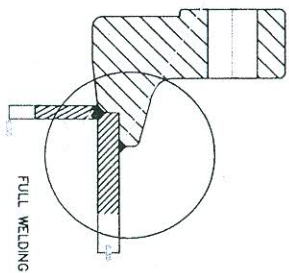
TYPE OF PRODUCT		SS BLANK		Ø350.0X45.0	
NAME OF CUSTOMER		DESCRIPTION		DRAWING NO.	
GSM-245		SS-304L		02	
HYDERABAD		MATERIAL CODE		UNIT WT.	
BPHARAT HEAVY ELECTRICALS LTD.		MATERIAL SPECN.		QTY.	
SCALE		DIN		DATE	
NTS		NSK		15.10.13	
WEIGHT(G)		BSM		15.10.13	
RD DG 4 35 0517 2033		MIR		15.10.13	
RD DG 4 35 0517 2033		REF. TO		ITEM NO.	
RD DG 4 35 0517 2033		DRAWING NO.		1	
RD DG 4 35 0517 2033		SHEET NO.		NO. OF SHEETS	
RD DG 4 35 0517 2033		NO. OF SHEETS		NO. OF SHEETS	

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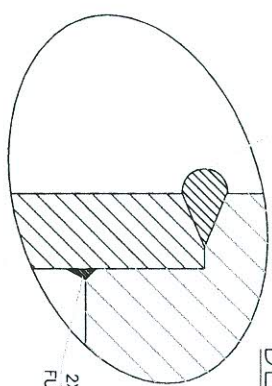


Gasketed plate 4 No.s
DETAIL 'A'

DETAIL 'C'



FULL WELDING



DETAIL 'B'

NOTE:

1. DISH AND FLANGES TO BE TIG / MIG WELDING WITH SUITABLE SS ELECTRODE.
2. THE ROOT SHOULD BE HOMOGENEOUS AND CONTINUOUS.
3. PRESSURE TEST AS PER SPECIFICATIONS.
4. TESTED ASSEMBLIES TO BE DEGREASED, SAND BLASTED AND POWDER COATED ON OUTSIDE.
5. ELECTRO POLISH INSIDE SURFACE.
6. LIFTING LUGS SHALL BE FULLY WELDED TO FLANGE AND DISH.

FINAL ON 03/05/12

VAR NO	REMARKS	VAR NO	VAR ITEM NO	DESCRIPTION	STD	DRAWING NO	FT NO	MAT. CODE	A	UNIT	QTY	REV
04	GAS VALVE COVER	RD DG 4 35 1133 4161						SS-304L			01	
03	FLANGE-III	RD DG 4 35 1133 4160						SS-304L			01	
02	DISH	RD DG 4 35 0517 2041						SS-304L			01	
01	FLANGE - II	RD DG 4 35 0517 2012						SS-304L			01	

TYPE OF PRODUCT
NAME OF CUSTOMER
GSM-245

REV	DATE	ALTERED	REV	DATE	ALTERED
01	14.10.13	NSM	01	14.10.13	NSM
		BSM			BSM
		MMRAO			MMRAO

DEPT.	GRADE OF TOL. DIM.	SCALE	WEIGHT(KG)	APPROV	DATE	NO. OF

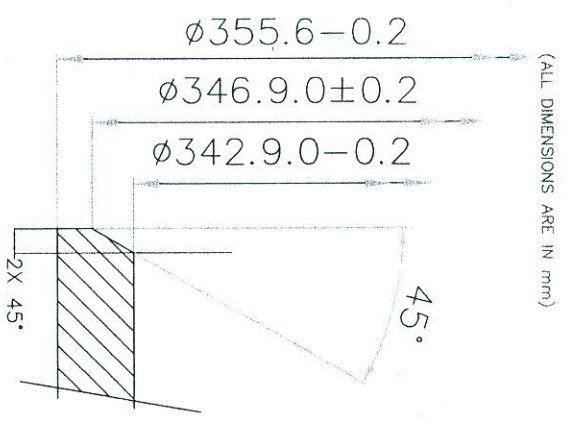
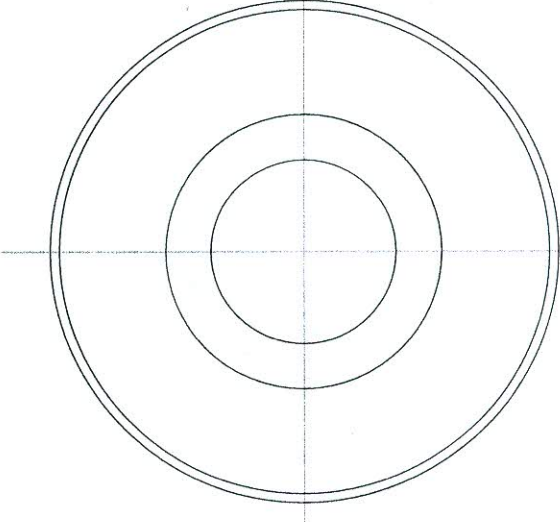
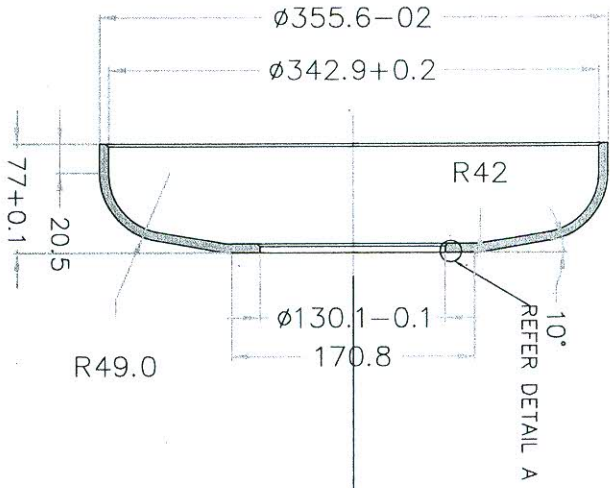
DISH END - I
RD DG 4 35 0517 2040
SHEET NO. NO. OF SHEETS

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INVENTORY NO.	SIGN. AND DATE	REF. DRG. NO.
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1402 L1501 35 4 GD
RD DG 4 35 0517 2040
ON DRD

FIRST ANGLE PROJECTION



ENLARGED VIEW 'A'

ALL SHARP EDGES SHALL BE MACHINED TO 0.4X45°
DISH SHALL BE PREPARED WITH SUITABLE DIE.

VAR NO	REMARKS	VAR NO	ITEM NO	01	SHEET	DESCRIPTION	STD	DRAWING NO.	ITEM NO	SS-304L	MATL CODE	A	UNIT	01	UNIT WGT	QTY	SS	ZONE
--------	---------	--------	---------	----	-------	-------------	-----	-------------	---------	---------	-----------	---	------	----	----------	-----	----	------

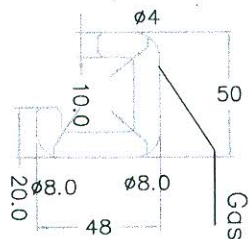
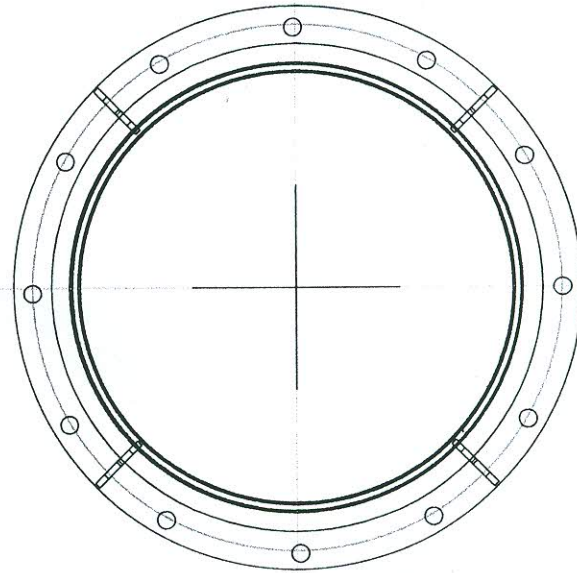
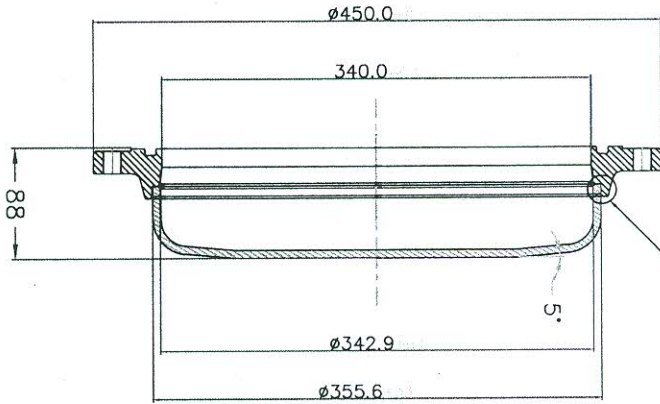
TYPE OF PRODUCT
NAME OF CUSTOMER
GSM-245

DEPT.	GRADE OF	SCALE	WEIGHT(KG)	DRN	NSK	DATE	NO. OF
	DRG			APPD	MMRAO	14.10.13	01

REV.	DATE	ALTERED	REV.	DATE	ALTERED
CHECKED	CHECKED	CHECKED	CHECKED	CHECKED	CHECKED

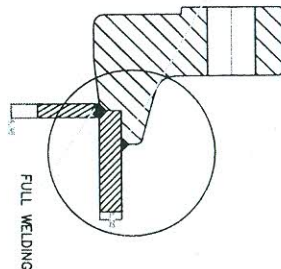
DEPT. CODE
TITLE
DISH-1
CARD CODE
RD DG 4 35 0517 2040 1
SHEET NO. NO. OF SHEETS

(10)



Cassette plate 4 No.s

DETAIL 'C'



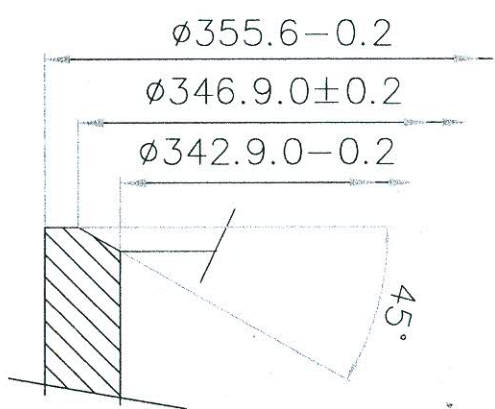
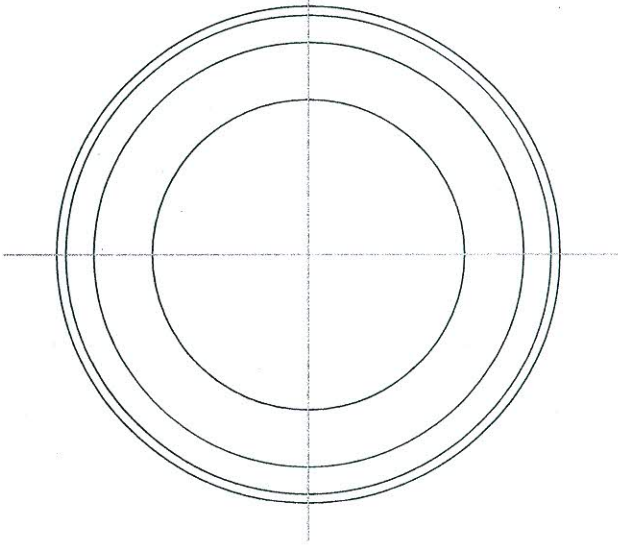
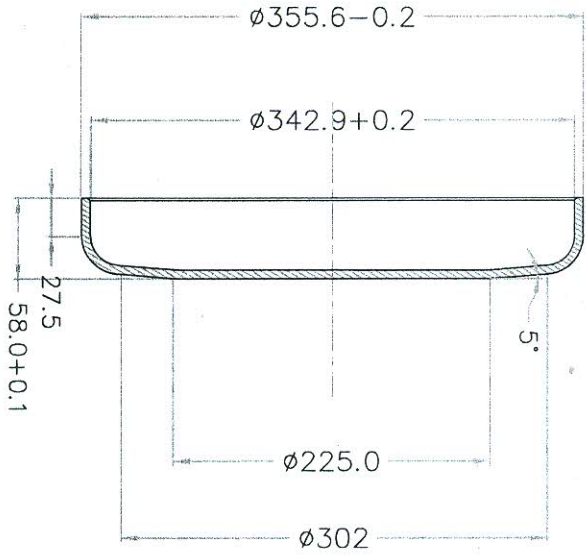
DETAIL 'A'

NOTE:

1. DISH AND FLANGES TO BE TIG / MIG WELDING WITH SUITABLE SS ELECTRODE.
2. THE ROOT SHOULD BE HOMOGENEOUS AND CONTINUOUS.
3. PRESSURE TEST AS PER SPECIFICATIONS.
4. TESTED ASSEMBLIES TO BE DEGRADED, SAND BLASTED AND POWDER COATED ON OUTSIDE.
5. ELECTRO POLISH INSIDE SURFACE.
6. LIFTING LUGS SHALL BE FULLY WELDED TO FLANGE AND DISH.

VAR NO	REMARKS	VAR NO	DESCRIPTION	ST	DRAWING NO	IT NO	MATL CODE	MATL SPECH	C	U	QTY	ZONE
02			DISH-II		RD DG 4 35 0517 2051		SS-304L				01	
01			FLANGE - V		RD DG 4 35 0517 2052		SS-304L				01	

REV. DATE ALTERED CHECKED		REV. DATE ALTERED CHECKED	
ZONE		ZONE	
<p>TYPE OF PRODUCT: GSM-245</p> <p>NAME OF CUSTOMER: BHARAT HEAVY ELECTRICALS LTD. HYDERABAD</p> <p>DEPT. GRADE OF TOL DIM C/M/F</p> <p>SCALE WEIGHT(KG)</p> <p>TITLE: DISH END-II</p>			
DRW NO	DRW DATE	DRW BY	DRW CHK
RD DG 4 35 0517 2050	14/10/13	MMRAO	
SHEET NO.	NO. OF SHEETS	REV.	
RD DG 4 35 0517 2050	1		



ENLARGED VIEW 'A'

ALL SHARP EDGES SHALL BE MACHINED TO 0.4x45°
DISH SHALL BE PREPARED WITH SUITABLE DIE.

VAR. NO.	REMARKS	VAR. NO.	ITEM NO.	DESCRIPTION	STD.	DRAWING NO.	IT. NO.	MATL. CODE	A	UNIT WGT.	QTY.	GS	ZONE
		01		SHEET				SS-304L		01			

TYPE OF PRODUCT: GSM-245
NAME OF CUSTOMER: BHARAT HEAVY ELECTRICALS LTD. HYDERABAD

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

DRN. NAME	NSK	SIGN.	AK	DATE	14.10.13	NO. OF	01
CHKD.	BSM			VAR.	14.10.13		
APPD.	MARRAO			REF. TO		ITEM NO.	

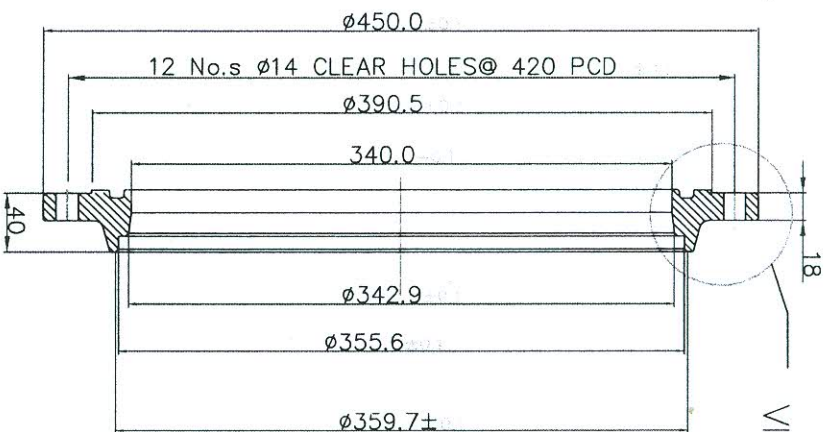
REV.	DATE	ALTERED	ZONE	REV.	DATE	ALTERED	ZONE
		CHECKED				CHECKED	

CARD CODE: RD DG 4 35 0517 2050
DRAWING NO.: RD DG 4 35 0517 2050
SHEET NO.: RD DG 4 35 0517 2051
NO. OF SHEETS: 1

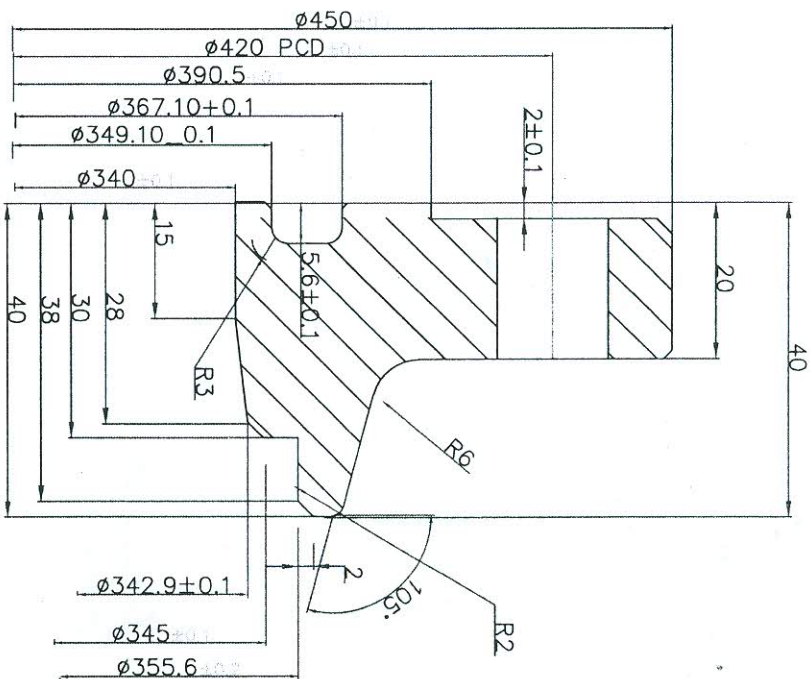
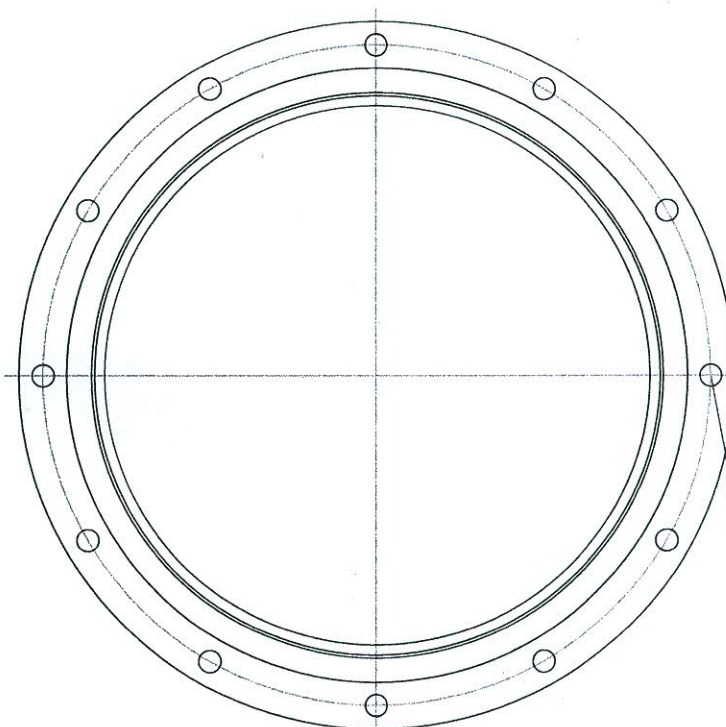
12

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INVENTORY NO.	SIGN. AND DATE	REF. DRG. NO.
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VIEW A
ø14mm, 12No.s clear holes @420±0.1mm PCD



ENLARGED VIEW 'A'

- Note:
1. Sealing area shall be polished to RA 0.8 or better.
 2. ø 14.0 holes shall be chamfered uniformly (0.8x45°).
 3. PCD and flange centre shall be concentric within ±0.05
 4. Finished flange shall be degreased and packed in 125 micron poly bag and sealed.
 5. Component shall be Machined to dimensions after welding to spherical pipe
 6. All sharp edges should be machined at 0.4 x 45°.

VAR NO	REMARKS	VAR ITEM NO	01
DESCRIPTION	BLOCK	Ø450.0x45.0	
DRAWING NO			
MATERIAL	SS-304L		
QTY	2		

TYPE OF PRODUCT
NAME OF CUSTOMER
GSM-245

DEPT.	GRADE OF	SCALE	WEIGHT(KG)
HYDERABAD	NTS		

NAME	DATE	SIGN.	NO OF
NSK	06.06.13	NSK	VAR.
MIRSAO	06.06.13		01

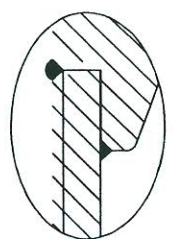
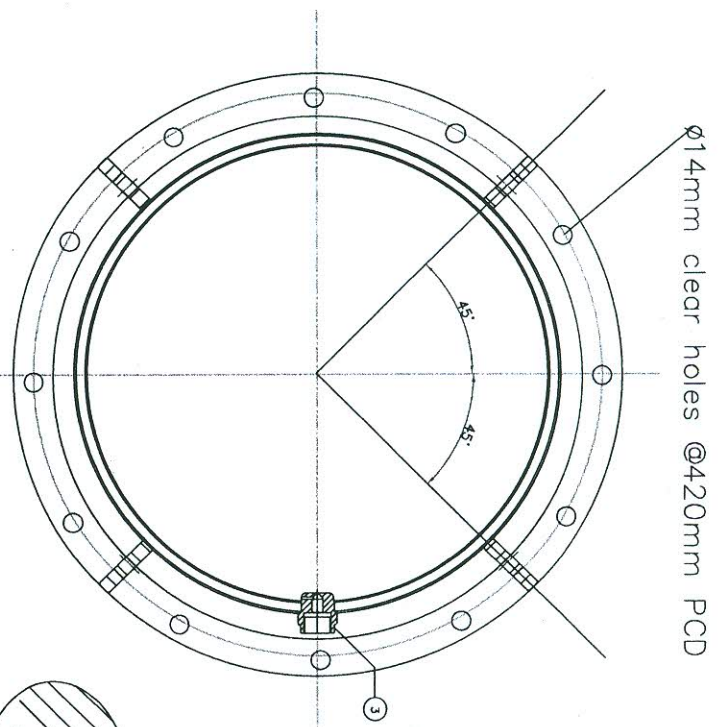
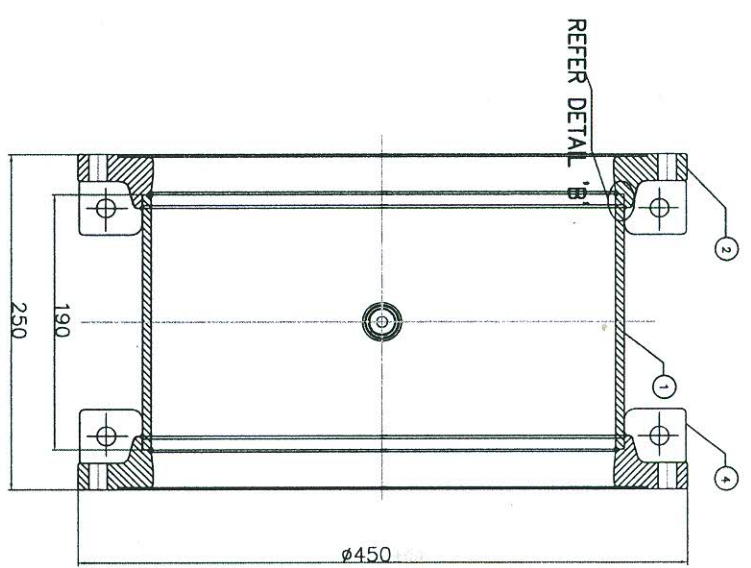
CARD CODE	RD DG 4 35 0517 2052	REV.	00
DRAWING NO.	RD DG 4 35 0517 2052		
SHEET NO.	NO. OF SHEETS		

REV.	DATE	ALTERED	ZONE
		CHECKED	

REV.	DATE	ALTERED	ZONE
		CHECKED	

REV.	DATE	ALTERED	ZONE
		CHECKED	

FLANGE - V



DETAIL 'B'

- Note:
1. SHELL, EXTENSION TUBE AND FLANGES SHALL BE TIG/MIG WELDING WITH SUITABLE SS ELECTRODE AS SHOWN.
 2. THE ROOT SHOULD BE HOMOGENOUS AND CONTINUOUS.
 3. PRESSURE TEST AT 13.0 BAR FOR 15 MINUTES.
 4. TESTED ASSEMBLIES TO BE DECREASED, SAND BLASTED AND POWDER COATED ON OUTSIDE.
 5. MAINTAIN PERPENDICULARITY AND PARALLALITY BETWEEN FLANGES WITHIN 0.1".
 6. INNER SURFACE OF ENCLOSURE SHALL BE ELECTROPOLISHED.

VAR. NO.	ITEM NO.	DESCRIPTION	QTY.	UNIT	WT.	QTY.	WT.
	04	LIFTING LUGS	8				
	03	GAS STUD	1				
	02	FLANGE-II	2				
	01	BUSBAR SHELL	1				

GSM 245

REV.	DATE	ALTERED	REV.	DATE	ALTERED
		CHECKED			CHECKED
ZONE			ZONE		

DEPT.	GRADE OF	SCALE	WEIGHT(KG)
	C/A/P		
<p>TYPE OF PRODUCT: NAME OF CUSTOMER: GSM 245</p>			
<p>NAME OF CUSTOMER: BHARAT HEAVY ELECTRICALS LTD.</p>			
<p>HYDERABAD</p>			
DRN	NSR	NAME	DATE
060613			060613
APPD	MARAO		
REF. TO	RD DG 4 35 0517 2000		
DRAWING NO.	RD DG 435 0517 2020		
SHEET NO.		NO. OF SHEETS	

1U CHAMBER

0016 5311 5249 RDDG435 ON 3RD

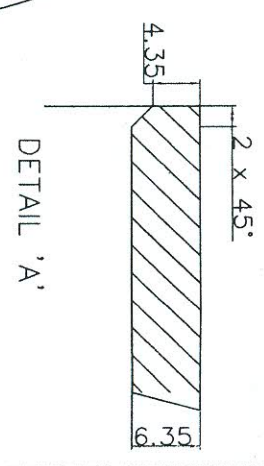
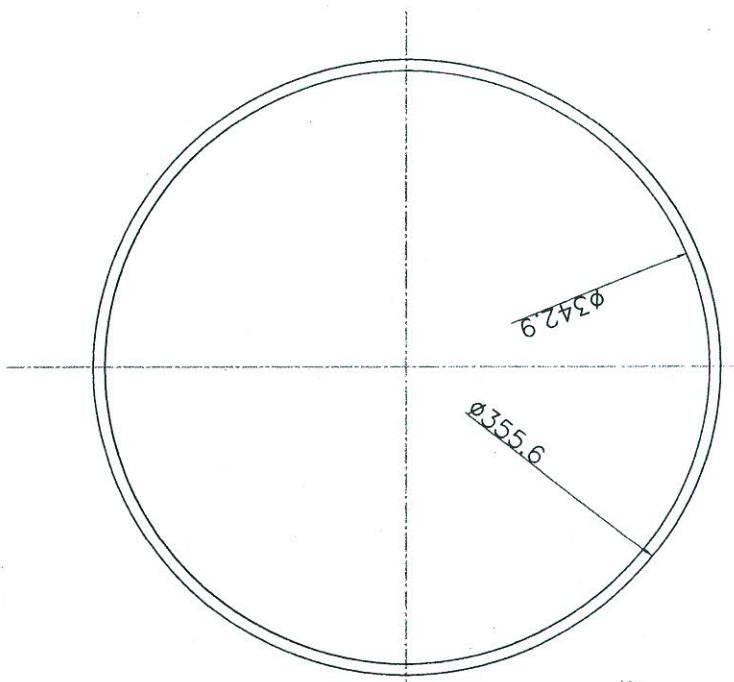
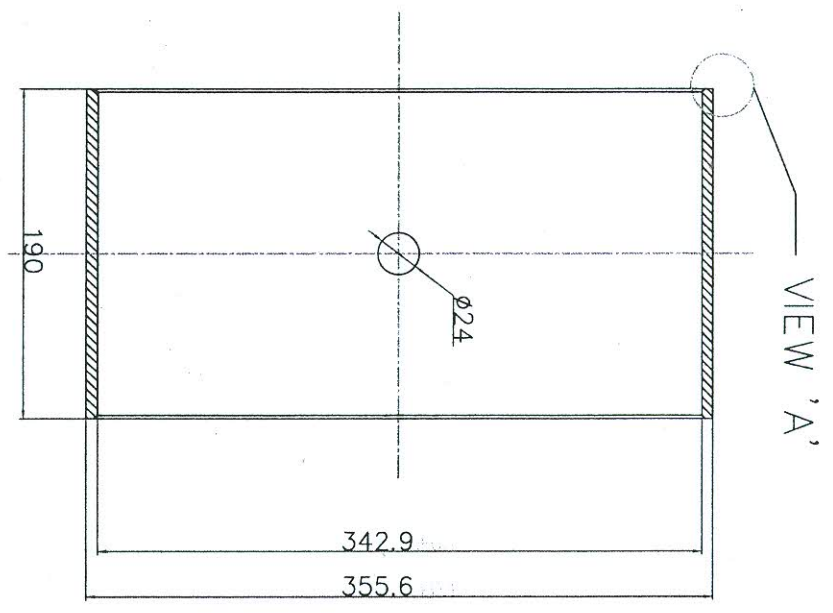
FIRST ANGLE PROJECT

(ALL DIMENSIONS ARE IN mm)

(-3.2)

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

NOTE : 1. SEAMLESS TUBE SHALL BE USED PREFERABLY .

REV.	DATE	ALTERED	CHECKED	ZONE

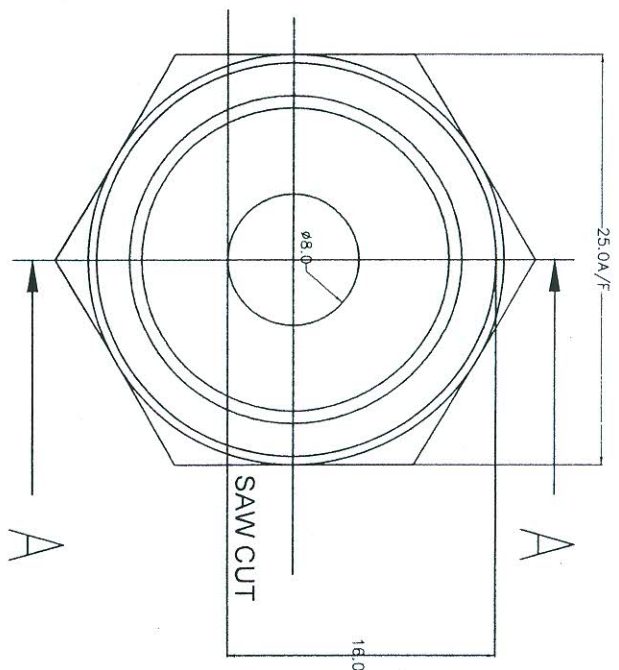
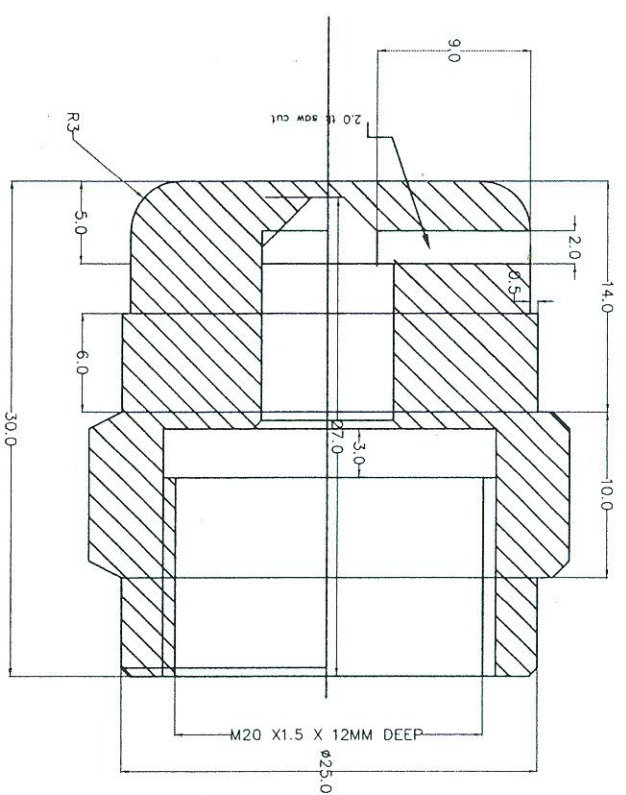
REV.	DATE	ALTERED	CHECKED	ZONE

TYPE OF PRODUCT		SHEET		1200210x6.35	
NAME OF CUSTOMER		DESCRIPTION		SS-304	
BHARAT HEAVY ELECTRICALS LTD.		DRAWING NO.		1	
HYDERABAD		MATERIAL CODE		UNIT WT.	
HYDERABAD		MATERIAL SPECN.		QTY.	
DEPT.		DIN		DATE	
GRADE OF		NSK		06.06.13	
TOL. DIM		NSK		06.06.13	
C/M/P		MIRAO		106.06.13	
SCALE		REF TO		NO. OF	
WEIGHT(KG)		RDDG435 0517 2020		ITEMS	
CARD CODE		DRAWING NO.		REV.	
RDDG435 0517 2021		RDDG435 0517 2021			
SHEET NO.		NO. OF SHEETS			

BUSBAR SHELL

GSM245

(5)



SECTION AA

ALL SHARP EDGES SHALL BE MACHINED TO 0.4x45°.
 MARKED SURFACE SHALL BE FINISHED TO RA0.8

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.

FINAL ON 12/05/11

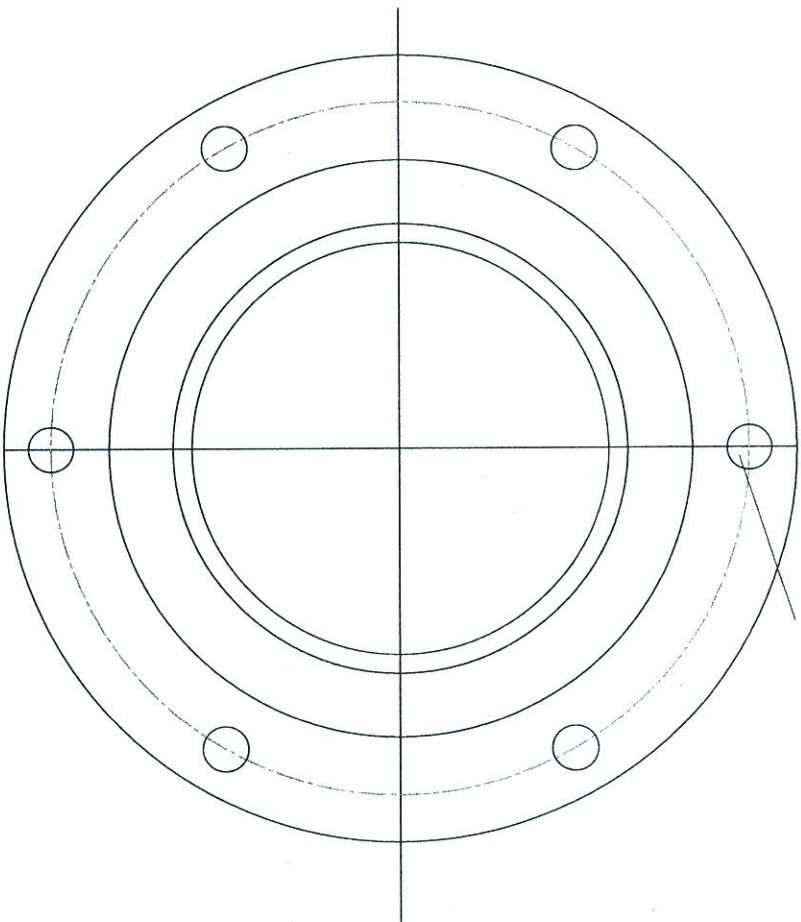
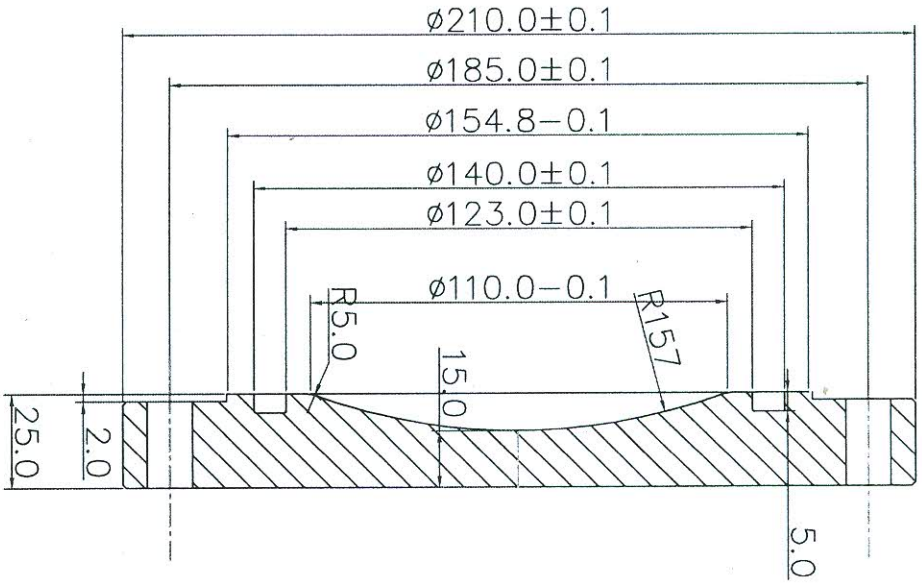
VAR NO	REMARKS	VAR ITEM NO.	DESCRIPTION	DWG NO.	DATE	BY	CHKD	APPD	MATERIAL	QTY	ZONE

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

DEPT. CODE	GRADE OF C/M/F	SCALE	WEIGHT(KG)	DRAWING NO.	DATE	NO. OF SHEETS
				RD DG 4 35 1133 4161A	26/12/06	1

REV.	DATE	ALTERED	ZONE

TITLE	CARD CODE	SHEET NO.	NO. OF SHEETS
GAS STUD	RD DG 4 35 1133 4161A		



6 No., CLEAR HOLES @ 185.0±0.1PCD, 23.0 DEEP

ALL SHARP EDGES SHALL BE MACHINED TO 0.4X45°. DISH SHALL BE PREPARED WITH SUITABLE DIE.

VAR. NO.	REMARKS	VAR. NO.	ITEM NO.	DESCRIPTION	STD.	DRAWING NO.	VAR.	IT. NO.	MATL. CODE	A	LINE	UNIT WGT.	QTY.	ZONE
		01		SHEET					SS-304L			01		

TYPE OF PRODUCT
NAME OF CUSTOMER
GSM-245



BHARAT HEAVY ELECTRICALS LTD.
HYDERABAD

DRN	NAME	SIGN.	DATE	NO. OF
NSK	NSK	NSK	14.10.13	14.10.13
BSM	BSM	BSM	14.10.13	14.10.13
MMRRAO	MMRRAO	MMRRAO	14.10.13	14.10.13

DEPT. GRADE OF TOL. DIM. C/M/F

SCALE WEIGHT(KG)

CARD CODE

DUMMY COVER

REV.	DATE	NO. OF
RD DG 4 35 0517 2030	1	1
RD DG 4 35 0517 2060		