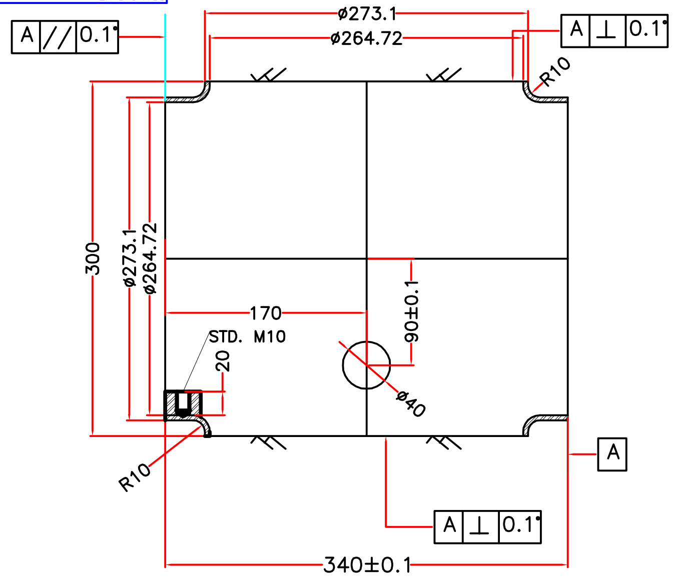
FIRST ANGLE PROJECTION

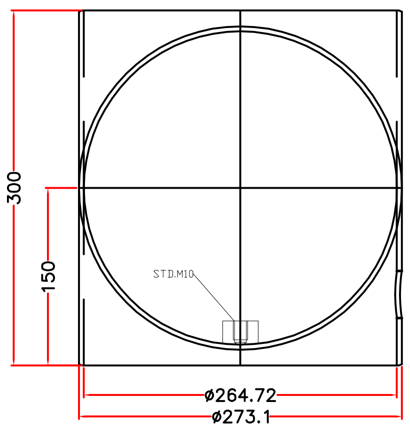
(ALL DIMENSIONS ARE IN m.m.)

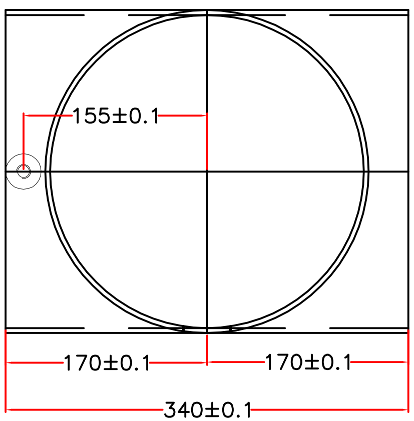
RDDG43513050_2111B

DRAWING NO.

(~3.2)







NOTE:

1. ENDS SHOULD BE PARALLEL (IN 0.2 MM) AND COAXIAL.
2. PULLOUTS AND THE BRANCH FLANGES SHOULD BE PERPENDICULAR TO THE CENTAL PIPE AXIS
3. THE PIPE SHOULD BE WITH MINIMUM OVALITY AND STRAIGHT.

REMARKS	VAR. NO.	ITEM NO.	DESCRIPTION	STD	DRAWING NO.	IT.NO. / VAR.	MATL. CODE / MATL. SPCN.	A/C	UNIT	UNIT WT. / QTY.	GS	ZONE
		001	273.1 O.Dx4.19 TK.x340 LG. ERW STAINLESS S. PIPE GRADE AISINO-304				SS-304		KG.	– / 01		

28 —— CARD TYPE-1 28 —— CARD TYPE-2

ADDITIONAL INFORMATION

STATUS OF DRAWING

DISTRIBUTION OF PRINTS

SWE	SWM	TCX
1	3	1

TYPE OF PRODUCT OR NAME OF CUSTOMER / PROJECT: 33kV/40kA DOUBLE BUS GIS

BHARAT HEAVY ELECTRICALS LTD. BHOPAL

	NAME	SIGN	DATE	NO. OF VAR
DRN.	SNK		10.02.14	
CKD.	MMR			
APPD.	NB			

REV.	DATE	ALTERED / CHECKED / APPROVED	ZONE

DEPT	CODE	UNTOL. DIMS. GR.	SCALE	WEIGHT (K.G.)	REF. TO ASSY. DRG.	ITEM NO.	NO. OF ITEM
SWE	409		1:1		RDDG43513050_2110R		

TITLE: ENCLOSURE-1U (R)

DRAWING NO. RDDG43513050_2111R REV 00

SHEET NO. 01 NO. OF SHEETS 01

A2

2 517 66 01562-200-501

INVENTORY NO. SIGN. & DATE REF. DRG. NO.

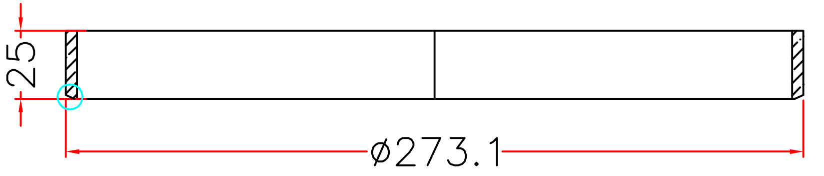
PRADEEP-CADZONE

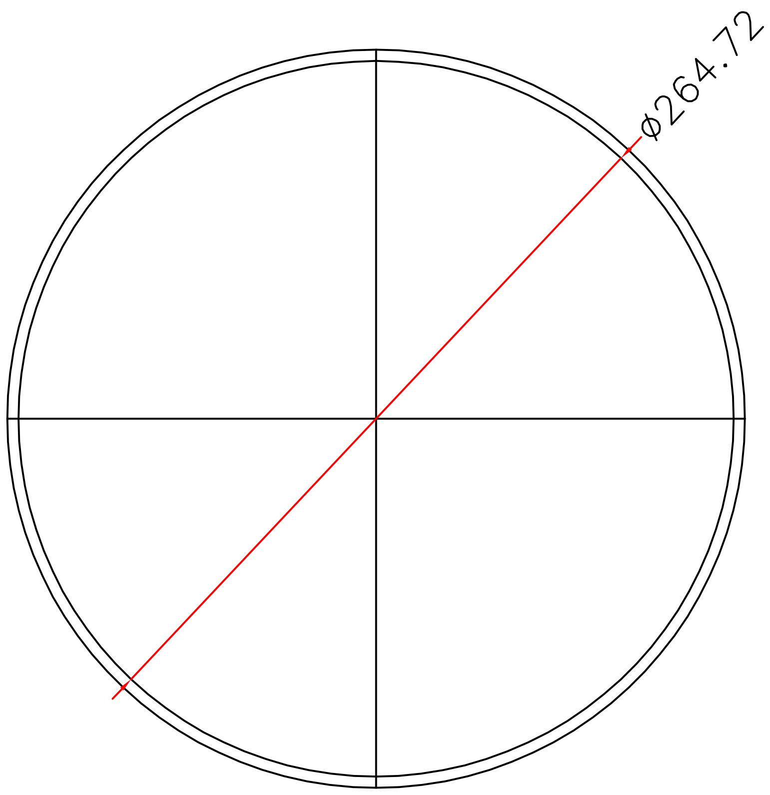
FIRST ANGLE PROJECTION

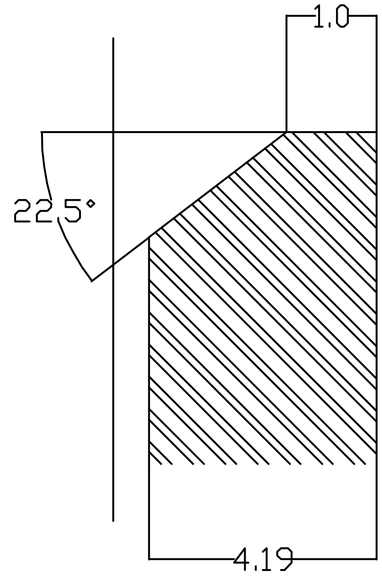
(ALL DIMENSIONS ARE IN m.m.)

DRAWING NO. RDDG43513050_2112

(~3.2)







DETAIL–A

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IT MUST NOT BE USED DIRECTLY OR INDIRECTLY IN ANY WAY DETRIMENTAL TO THE INTEREST OF THE COMPANY.

2 517 06 01502-200-001

REMARKS	VAR. NO.	ITEM NO.	DESCRIPTION	STD	DRAWING NO.	IT.NO. / VAR.	MATL. CODE / MATL. SPCN.	A/C	UNIT	UNIT WT. / QTY.	GS	ZONE
		001	273.1 O.Dx4.19 TK.x25 LG. ERW STAINLESS S. PIPE GRADE AISINO–304				AA10740		KG.	– / 01		

28 —— CARD TYPE-1 | 28 —— CARD TYPE-2

ADDITIONAL INFORMATION

STATUS OF DRAWING

DISTRIBUTION OF PRINTS

SWE	SWM	TCX
1	3	1

TYPE OF PRODUCT OR NAME OF CUSTOMER / PROJECT: 33kV/40kA DOUBLE BUS GIS

BHARAT HEAVY ELECTRICALS LTD. BHOPAL

	NAME	SIGN	DATE	NO. OF VAR
DRN.	SNK		10.02.14	
CKD.	MMR			
APPD.	NB			

REV.	DATE	ALTERED / CHECKED / APPROVED	ZONE

DEPT	CODE	UNTOL. DIMS. GR.	SCALE	WEIGHT (K.G.)	REF. TO ASSY. DRG.	ITEM NO.	NO. OF ITEM
SWE	409		1:1		RDDG43513050_2110M&R		

TITLE: EXTENSION PIPE

DRAWING NO. RDDG43513050_2112 | REV 00

SHEET NO. 01 | NO. OF SHEETS 01

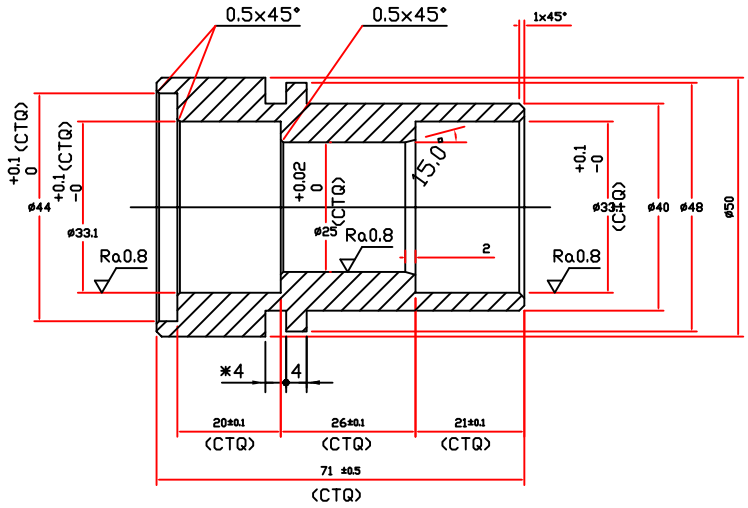
A2

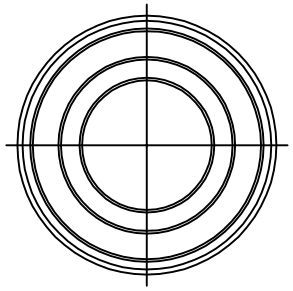
PRADEEP-CADZONE

FIRST ANGLE PROJECTION

(ALL DIMENSIONS ARE IN mm)

DRG. NO. RDDG43513050_2113





NOTE :-

1. FINISHED (FINAL) DIMENSIONS ARE GIVEN IN THIS DRG. HOWEVER THE SUPPLIER SHOULD PROVIDE NECCESSARY MACHINING. ALLOWANCES AS FINAL MACHINING. IS TO BE DONE AFTER WELDING TO ACHIEVE DESIRED ACCURANCY.

CTQ :- CRITICAL TO QUALITY

			001	50 DIA.x71 LG. STAINLESS S. BAR				AA1070225185		KG	0.730	
								AA10725			001	
VAR.00	REMARKS	VAR. NO.	ITEM NO.	DESCRIPTION	STD	DRAWING NO.	IT.NO. / VAR.	MATL. CODE / MATL. SPCN.	A C I	UNIT	UNIT WT. / QTY.	SS
28 → CARD TYPE-3			28 → CARD TYPE-1				28 → CARD TYPE-2					

ADDITIONAL INFORMATION

STATUS OF DRAWING B

DISTRIBUTION OF PRINTS

O/C – 1 TCX – 1

SWM – 3

mRikn dk i–dkj ;k xk–gd@ifj;kstuk dk uke TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT

33kV / 40kA DOUBLE BUS GIS

HAkjr gsoh bysfDV&dYl fyfeVsM HAksiky BHARAT HEAVY ELECTRICALS LTD. BHOPAL

	uke@NAME	gLrk@SIGN	fnaukd@DATE
cuk;k DRN	SNK	Sd/–	01.01.14
tWok CKD	MMR	Sd/–	01.01.14
vuqeksfnr APPD	HRP	Sd/–	

osfj_ dh la[;k NO. OF VAR – | en_la[;k NO. OF ITEM 001

foHAkx DEPT SWE | vu_ Vky_ uki dh Js.kh UNTOL. DIMS. GR. | vuqikr SCALE 1:1 | HAkj fd_xk WEIGHT(KG.) |

dksM CODE 409 | 'kh"kZd TITLE: RFT BODY

vls_ M&kbZax dk lanHAZ REF. TO ASSY. DRG. RDDG43513050_2110M&R | en d–_ ITEM NO. 004

vkjs[A d–DRAWING NO. RDDG43513050_2113 | iqu_ REV. 04

i="B d–SHT. No. 01 | i="Bksa dh la[;k NO. OF SHT. 01

REV.	DATE	ALTERED	CHECKED	APPROVED
04	07.03.09	SSA	RRR	HRP

CTQ ADDED.

(DCA NO. 28627)

REV.	DATE	ALTERED	CHECKED	APPROVED
03	5.7.97	G.PRASAD	P.S.SONKAR	D.K.DIKSHIT

DIA 48 & DIM 4* WERE NOT ON.

REV.	DATE	ALTERED	CHECKED	APPROVED
02	19.3.96	G.PRASAD	DKL	D.K.DIKSHIT

SHAPE MODIFIED TO SUIT WELDING NOTE 2 ADDED

A3 SIZE

REF. DRG. NO. | SIGN. & DATE | INVENTORY NO.

FIRST ANGLE PROJECTION (ALL DIMENSIONS ARE IN mm)

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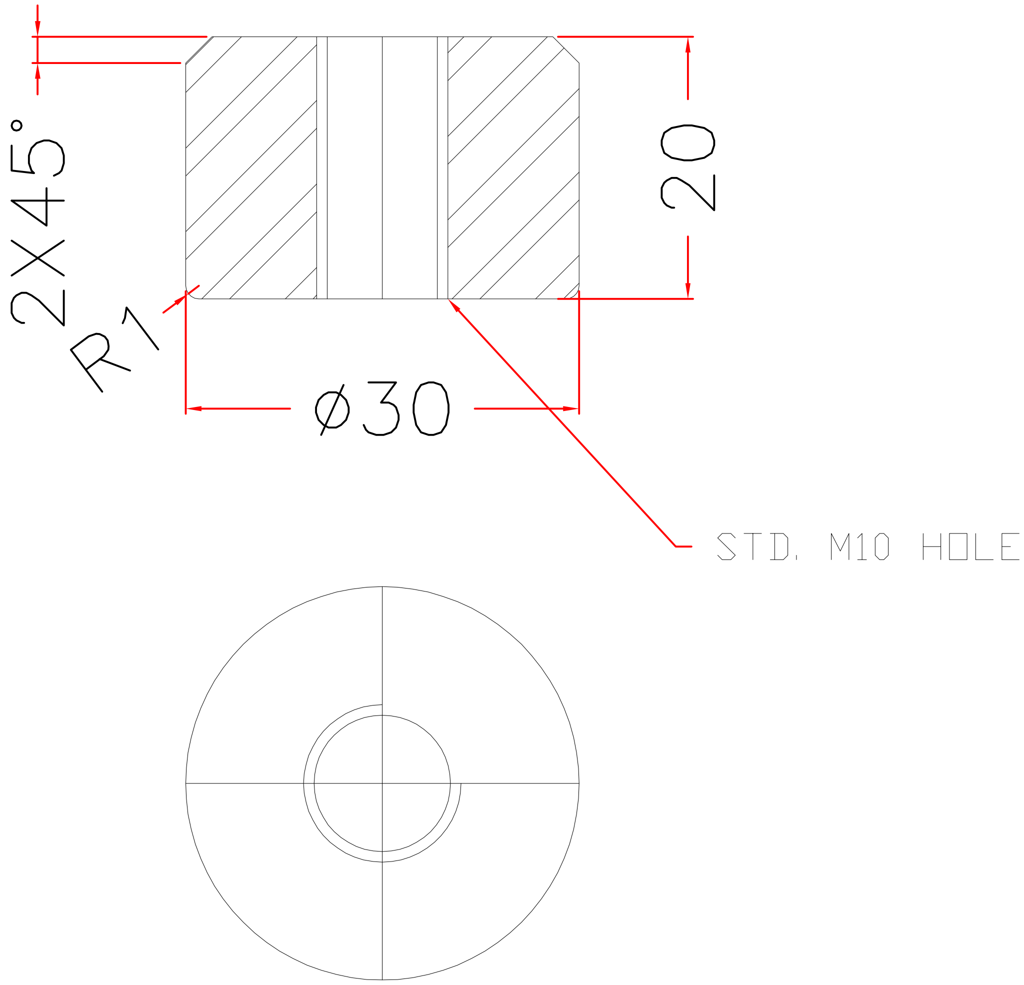
REV.	DATE	ALTERED / CHECKED / APPROVED	REV.	DATE	ALTERED / CHECKED / APPROVED	ADDITIONAL INFORMATION			
						STATUS OF DRAWING			
						DISTRIBUTION OF PRINTS	SWE	SWM	TCX
							1	3	1



1. ALL SHARP CORNERS AND EDGES SHOULD BE FILLETED TO 1.0R

REMARKS (65–75)	ITEM NO. (25–27)	DESCRIPTION (29–58)	STD (59)	MATL. CODE (34–45) / MATL. SPCN. (46–54)	C (55)	UNIT (56)	UNIT WT. (58–65) / QTY. (68–71)
	001	DIA 30 X 20MM LEN		SS-304		KG.	– / 001

28 → CARD TYPE-3 | 28 → CARD TYPE-1 | 28 → CARD TYPE-2

REF. DRG. NO. | SIGN. & DATE | INVENTORY NO.

HAkjr gsoh bysDV&hdYl fyfeVsM HAksiky
BHARAT HEAVY ELECTRICALS LTD.
BHOPAL

	uke NAME	gLrk_ SIGN	fnuakd DATE	osfj_ dh la[;k NO. OF VAR.
cuk;k DRN	SNK		03-02-14	
tkapk CKD	MMR			
vuqeksfnr APPD	NB			

foHAkx DEPT	vu_ Vky_ uki dh Js.kh UNTOL.DIMS. GR.	vuqikr SCALE	HAkj fd_xk-_ WEIGHT (K.G.)	vls_M&kbZax dk lanHAZ REF. TO ASSY. DRG.	en d-_ ITEM NO.	en la[;k NO. OF ITEM
SWE	M	1:1	–	RDDG43513050_2110B	001	001
dksM CODE: 409	AA 0230208					

'Ah"AZd TITLE: **BUSH**
(33kV/40kA DOUBLE BUS GIS)

vkjs[A d-_ DRAWING NO.: RDDG43513050_2114
iqu@REV.: 00
i="B d-_ SHT. No. 01 i="Bksa dh la[;k NO. OF SHT. 01

PSGSG2012-13/028B	**Product Specification For S.S ENCLOSURES**	Product	GVM36
		Rev	01
		Date	05.01.2013

1.0 **Application:**

The stainless steel Enclosure assemblies to Drawing. Nos. RDDG43513050_2110R, 1710 & 1721 are used for gas filled applications. The gas pressure in this metal enclosure is maintained at 1 to 1.5 bars. The enclosure assembly shall meet following specifications.

2.0 **SPECIFICATIONS:**

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

2.2 Standard seamless / ERW pipe in schedule is acceptable. The pipe shall be pulled out using hydraulic / spinning equipment for RDDG43513050_2110R as per desired sizes.

2.3 The flanges shall be manufactured using H-Boring/CNC to drawings after **TIG** welding only. The flanges shall be machined as per instructions and maintaining parallelism of faces and perpendicularity as prescribed. To ensure parallelity, it is must to machine the components after welding all the sections as prescribed. The flange sealing surfaces shall be polished to RA 0.6/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 for parallelism, wherever not mentioned in the drawing, shall be within 0.1^{o}. Any sharp corners shall be removed as per the drawing.

2.4	Weld splatter, if any, shall be removed by chipping or grinding on completion of the weld. Particular care should be taken to avoid any splatter on the inside of the chamber, at the joint or other locations.
2.5	The welded structure shall be tested for Dye penetration test and report shall be generated and submitted to BHEL.
2.6	The supplier shall stress relieve the tested component to ensure zero post supply deformation.
2.7	The tested assembly should be cleaned, degreased and prepared for pressure test. The assembly shall be tested at 2.0 bar pressure for 4 hours and pressure drop shall be recorded and communicated to BHEL. In case of unallowable pressure drop (>0.5%), a coarse 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 4 bar for 15 minutes prior to this test to verify pressure withstanding capabilities specified in drawing.
2.8	The enclosure shall be electro-polished on the inside surface using moderate current densities.
2.9	The assemblies further shall be sandblasted on the outer surface and powder coated (> 50 Micron) as specified in drawing. During this operation all flanges shall be masked at the sealing surfaces and at the rim.

2.10 The dimensional checks, Dye penetration test and the leak test shall be carried out in presence of BHEL inspector.

2.11 **Following certificates shall be furnished for acceptance of the component:**

2.11.1 Material source certificate,
2.11.2 Material test certificate ,
2.11.3 DP tests.
2.11.4 Pressure drop test and pressure withstand test Report.
2.11.5 Electro-polishing schedule

2.12 A certified copy of above documents shall be sent along with the delivery note.

3.0 **Packing :**

The accepted component shall be packed in wooden boxes with suitable PVC 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 2-weeks, adequate quantity of moisture absorbent shall also be placed with the component.