

LIFTING LUG DETAIL  
(UNSPECIFIED FILLET RADIUS : R20)

NOTE

- NECESSARY MACHINING ALLOWANCES HAVE BEEN ADDED ON ALL MACHINABLE SURFACES.
- PERMISSIBLE DEVIATIONS OF NON TOLERANCED CASTING DIMENSIONS REFER APPLICABLE QUALITY PROCEDURE.
- FINISH MACHINED DIMENSIONS ARE INDICATED WITHIN BRACKETS FOR INFORMATION ONLY.
- THE EMBOSSING OF BHHEL, MATL. MARK, RATING & SIZE SHALL BE DONE STRICTLY AS PER THE SEQUENCE SHOWN IN VIEW-P
- CASTING SHALL COMPLY WITH THE REQUIREMENTS OF APPLICABLE QUALITY PROCEDURE.
- UNSPECIFIED CASTING RADII = R5
- HEIGHT OF CASTING LETTERS = 40 mm
- ⊗ INDICATES SURFACE TO BE MACHINED.
- ∇ INDICATED CASTING SURFACES SHALL BE OF HIGH QUALITY WITHOUT SURFACE UNEVENNESS.

SPECIAL NOTE

- GUIDE BAR DIMENSIONS TO BE MAINTAINED WITHIN THE TOLERANCE INDICATED.
- BOTH GUIDE RIBS TO BE COPLANAR AND TRUELY VERTICAL.

REV	DATE	ALTERED
		CHD & APPD

NO	OFF	DESCRIPTION	MATL CODE	MATL SPECN	HEAT TREATMENT	SCRAP SORT	NET WT (kg)	GROSS WT (kg)	DRAWING No	ITEW No
01		CASTING	-	SA 216 WCC ATTEST	NORMALISED	-	6900	-	1-V-F999-05256R 92 203 078 0000	001

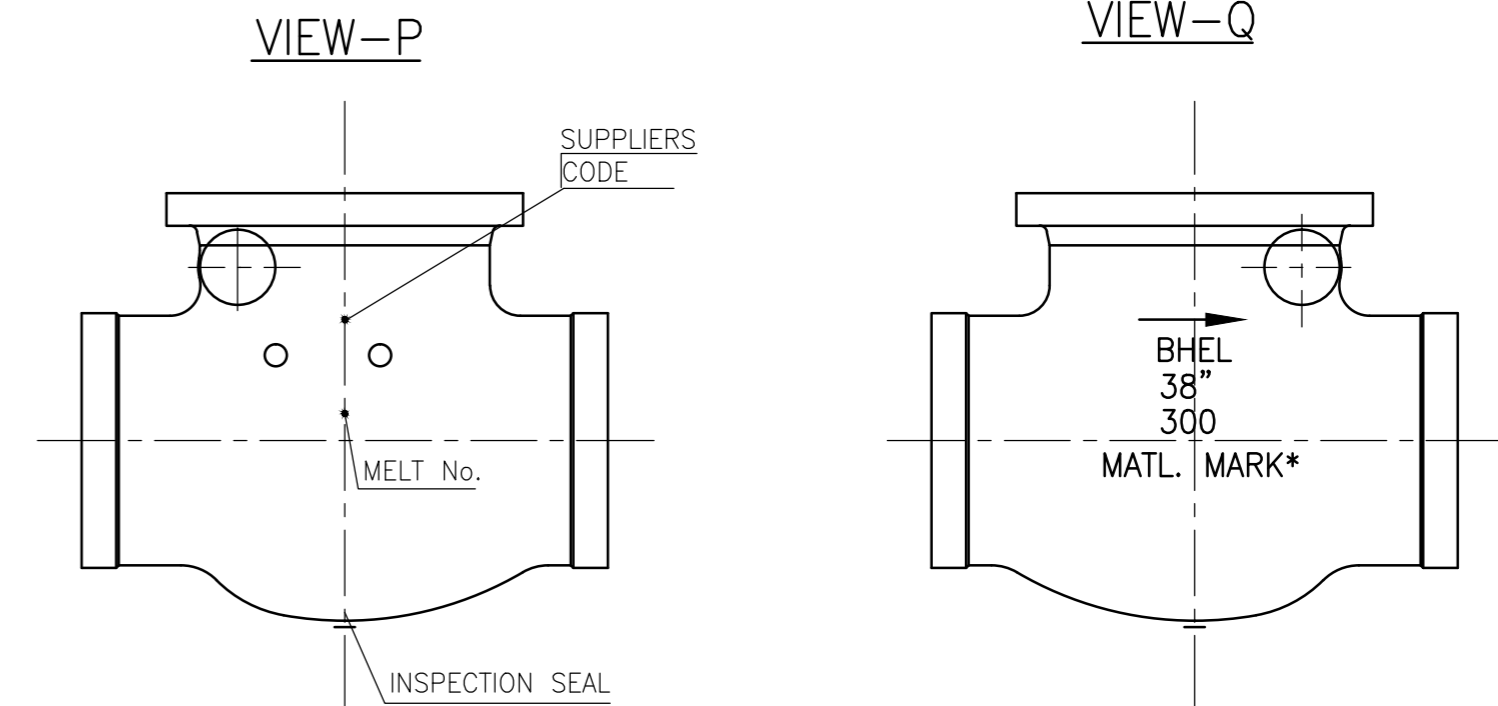
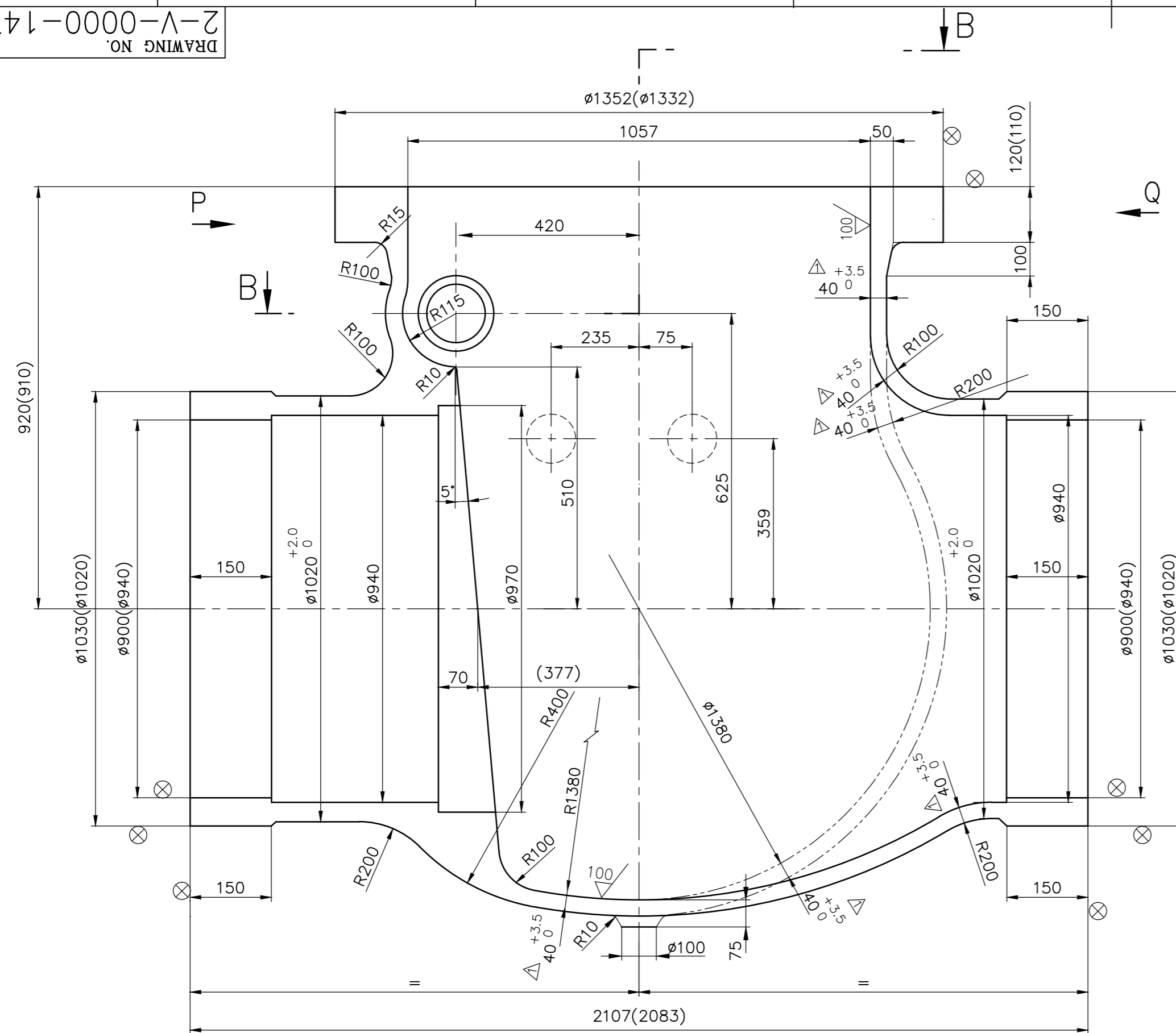
TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT

DEPT	VL	SCALE	WEIGHT (KG)	REFERENCE INFORMATIONS
365-119		NTS		
CODE 320				
TITLE				
BODY ( 38" - C600 - BW )			CARD CODE	DRAWING NO.
			U 01	1-V-0000-05256R

CAUTION: The information on this drawing is the property of Bharat Heavy Electricals Ltd. It must not be used directly or indirectly in any way without the prior approval of the company.

2-V-0000-14787R/2  
DRAWING NO.

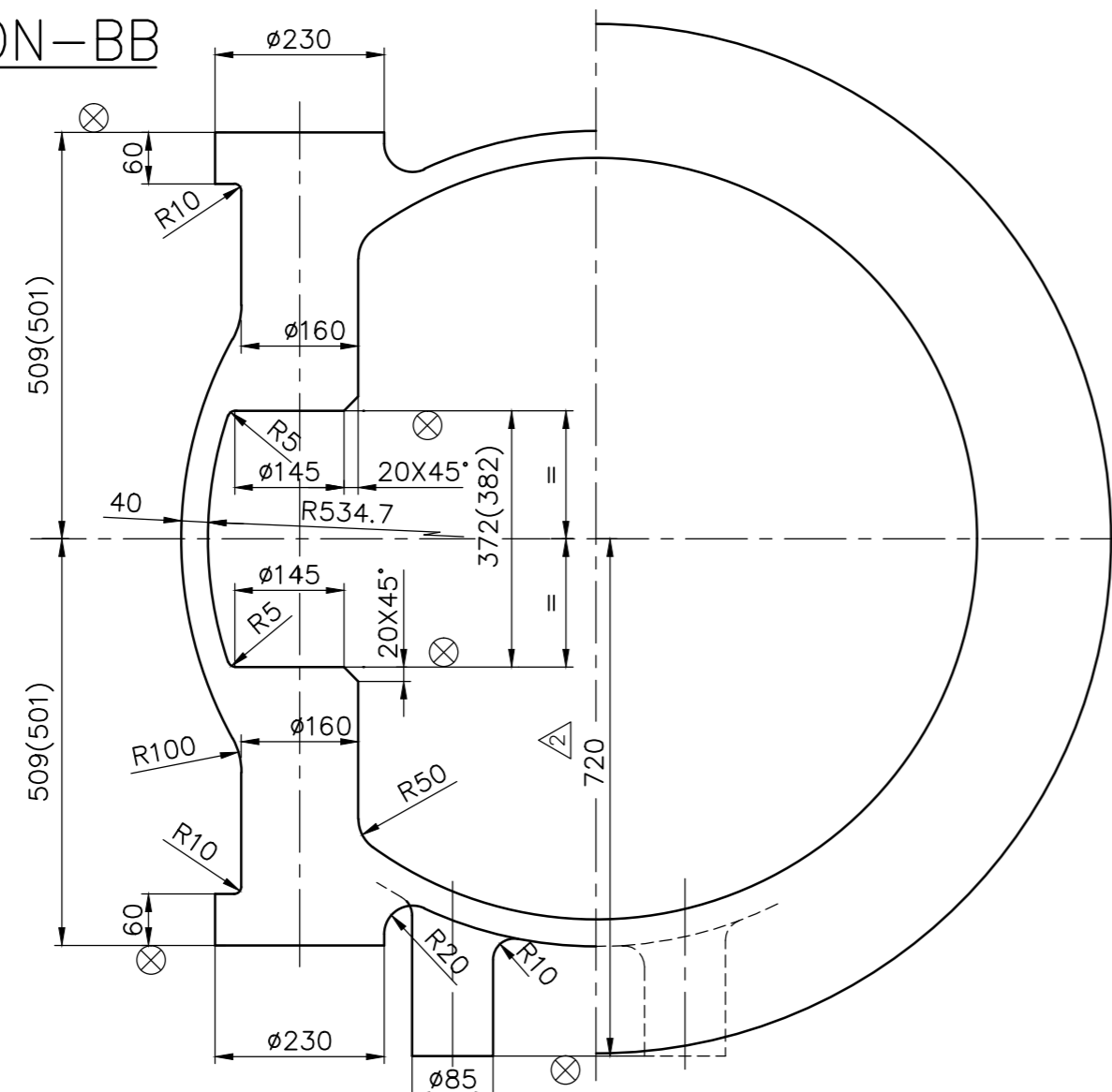
ALL DIMENSIONS ARE IN MILLIMETRES. FOR TOLERANCES OF UNTOLERANCED DIMENSIONS DURING MANUFACTURE REFER RELEVANT QCP / QP



NOTES:-

1. NECESSARY MACHINING ALLOWANCES HAVE BEEN ADDED ON ALL MACHINABLE SURFACES
2. PERMISSIBLE DEVIATIONS OF NON TOLERANCED CASTING DIMENSIONS - REFER APPLICABLE TDC
3. FINISHED MACHINED DIMENSIONS ARE INDICATED WITHIN BRACKETS FOR INFORMATION
4.  $\sqrt{100}$  CASTING SURFACES MUST BE HIGH QUALITY WITHOUT SURFACE UNEVENNESS.
5. ALL DETAILS SHOWN IN VIEWS 'P' & 'Q' EXCEPT MELT No. AND INSPECTION SEAL ARE TO BE CAST.
6. CASTING SHALL COMPLY WITH THE REQUIREMENTS OF APPLICABLE TDC.
7. UNSPECIFIED CASTING RADII 3 - 5 MM
8. HEIGHT OF CASTING LETTERS 50MM
9.  $\otimes$  SURFACES TO BE MACHINED

SECTION-BB



2	2-V-Z079-14787R/1	A216 WCB,ATTEST,AN	922030990000		WCB				
1	2-V-Z077-14787R/2	A217 WC9,ATTEST,NT	922030730000		WC9				
SL No.	DRAWING No.	MATL. SPECN.	MATL. CODE		MATL. MARK				
No OFF	DESCRIPTION	MATL CODE	MATL SPECN	HEAT TREATMENT	SCRAP SORT	NET WT (kg)	GROSS WT (kg)	DRAWING No	ITEM No

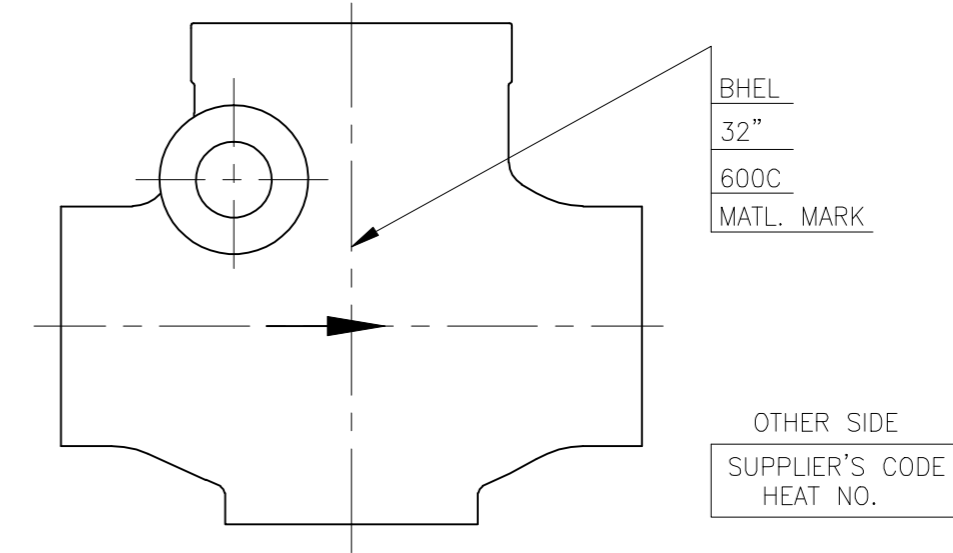
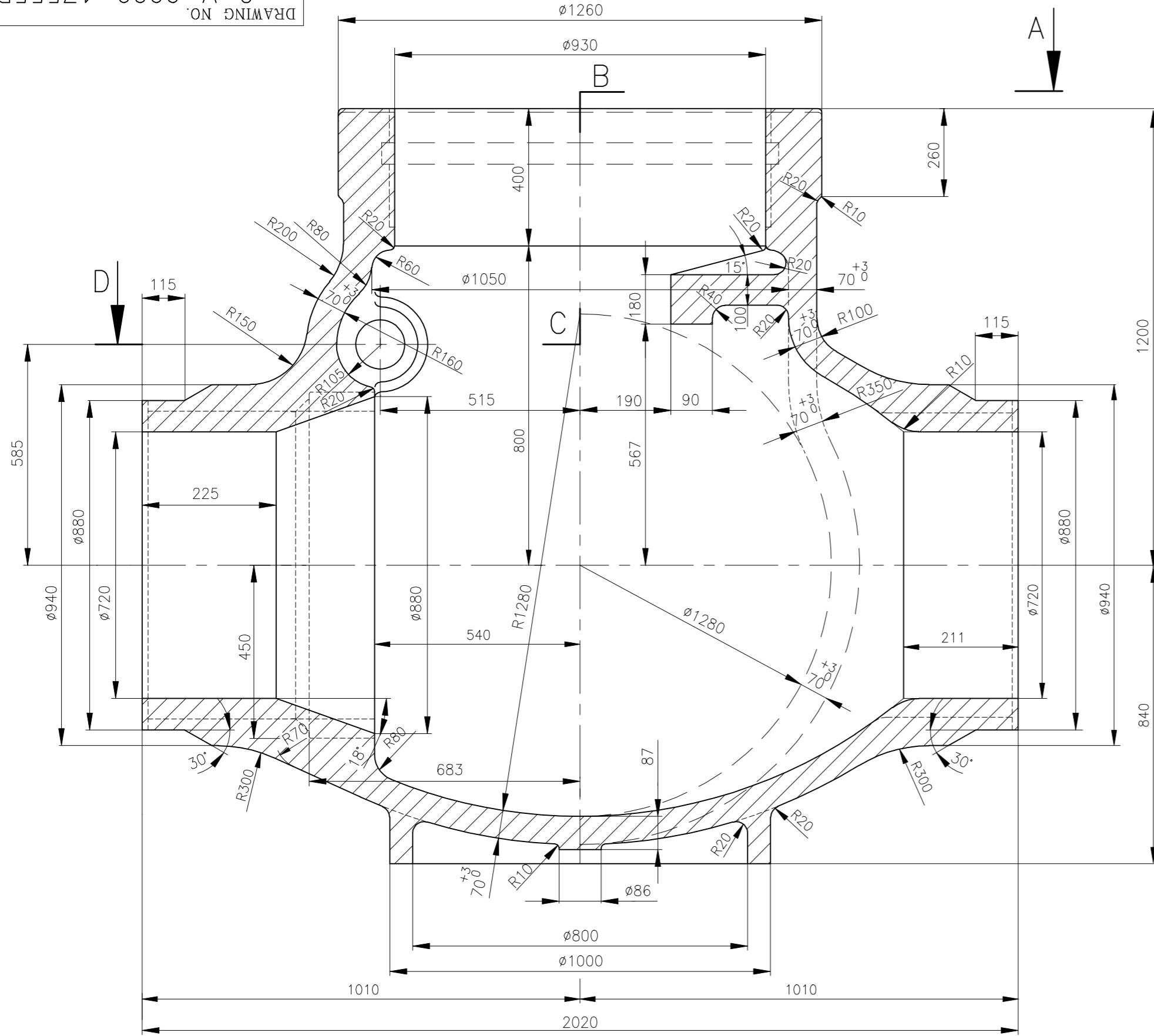
REV 2	DATE 15.05.13	ALTERED VB CHD & APPD SSK&KRS
ZONE	DIMENSION 720 WAS 600	
REV 1	DATE 11.02.13	ALTERED VB CHD & APPD KRS & MRK
ZONE	SL. No.2 INCLUDED. TOLERANCE $\begin{matrix} +3.5 \\ 0 \end{matrix}$ WAS $\begin{matrix} +1.0 \\ 0 \end{matrix}$	
	DCP No.801510	
	DCP No.801448	

TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT									
<b>BHARAT HEAVY ELECTRICALS LTD.</b> UNIT: HIGH PRESSURE BOILER PLANT. TIRUCHIRAPALLI-620014.									
DRN	V.BAIRAVAN	SIGN		DATE	17.10.12	NO OF		VAR.	
CHD	S.SATHEES				17.10.12				
APPD	K.RAJASEKARAN				17.10.12				
DEPT	V L	SCALE	WEIGHT (KG)	REFERENCE INFORMATIONS					
CODE 320		NTS	3542						
TITLE				CARD CODE	DRAWING NO. REFER TABLE				REV
CASTING BODY (38"-300C NRV)				U 01	2-V-0000-14787R				2

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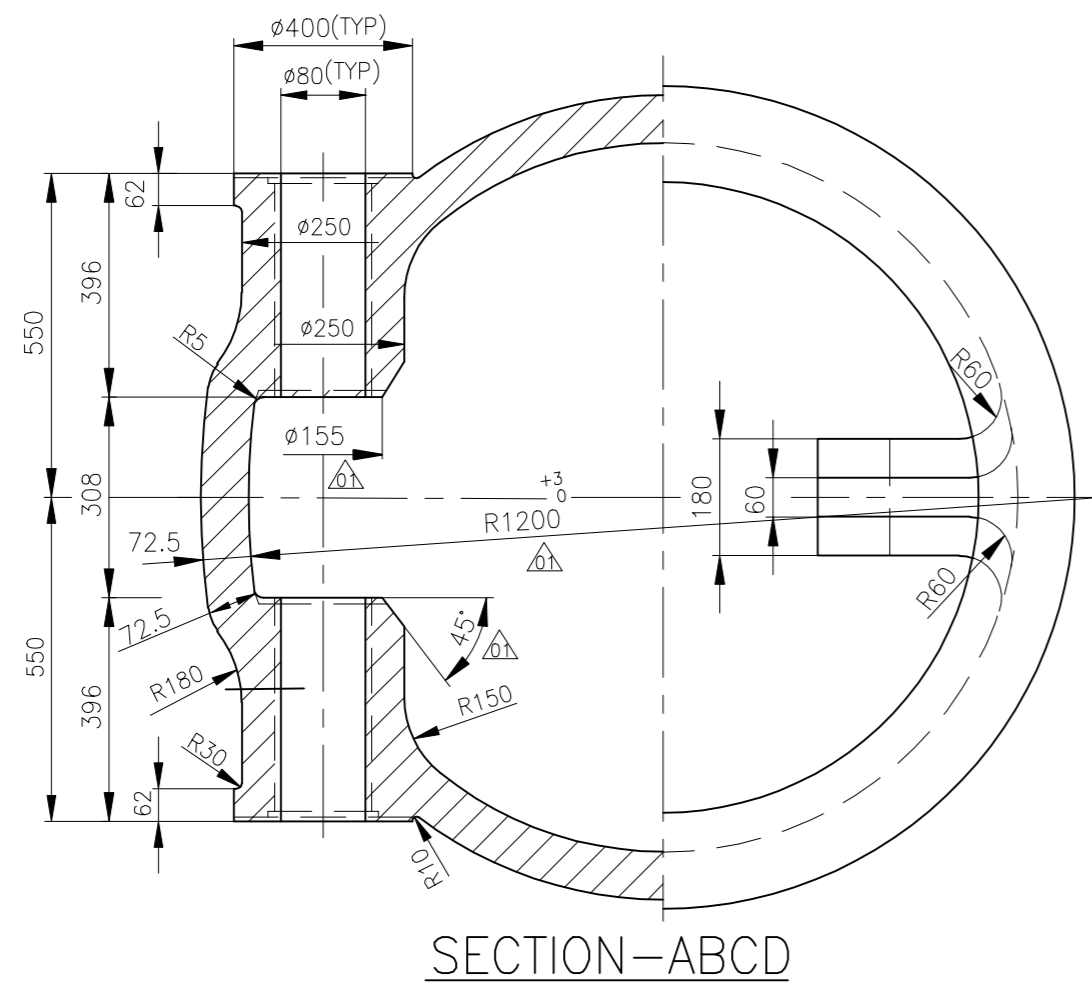
DRAWING NO  
2-V-0000-17555R

ALL DIMENSIONS ARE IN MILLIMETRES. FOR TOLERANCES OF UNTOLERANCED DIMENSIONS DURING MANUFACTURE REFER RELEVANT QCP / QP



NOTES:

- '\*' MARKED TYPES ARE SPECIAL CLASS RATING. FOR THESE VALVES EMBOSING SHALL BE '600C SPL' INSTEAD OF 600C
- CASTINGS ARE TO BE SUBJECTED TO RT/UT ON ALL CRITICAL LOCATIONS AS PER APPLICABLE LATEST QUALITY PROCEDURE.
- ALL EXTERIOR AND ACCESSIBLE INTERIOR SURFACES OF BODY SHALL BE MPI/LPI TESTED AS PER APPLICABLE LATEST QUALITY PROCEDURES.
- DOTTED LINE SHOWS FINISH MACHINED CONFIGURATION.
- FOR ALL OTHER DETAILS LIKE DIMENSIONAL TOLERANCE, EMBOSING, ETC. REFER APPLICABLE LATEST QUALITY PROCEDURES.
- MINIMUM WALL THICKNESS REQUIRED = 70



SECTION-ABCD

04*	921528070000	2-V-LA14-17555R/00	SA217-WC9 ATTEST NT	WC9
03*	921528060000	2-V-LA13-17555R/00	SA217-WC6 ATTEST NT	WC6
02	921527800000	2-V-L472-17555R/01	SA217-WC9 ATTEST NT	WC9
01	921527790000	2-V-L471-17555R/01	SA217-WC6 ATTEST NT	WC6
S.NO	MATERIAL CODE	DRAWING NUMBER	MATERIAL SPECIFICATION	MATL. MARK

No OFF	DESCRIPTION	MATL CODE	MATL SPECN	HEAT TREATMENT	SCRAP SORT	NET WT (kg)	GROSS WT (kg)	DRAWING No	ITEM No
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TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT: QN

	BHARAT HEAVY ELECTRICALS LTD.,	DRN	NAME	SIGN	DATE	NO. OF
	UNIT: HIGH PRESSURE BOILER PLANT.	CHD	P.V.A.	P.V.A.	20.10.08	VAR.
	TIRUCHIRAPALLI-620014.	APPD	S.N.R.	S.N.R.	20.10.08	

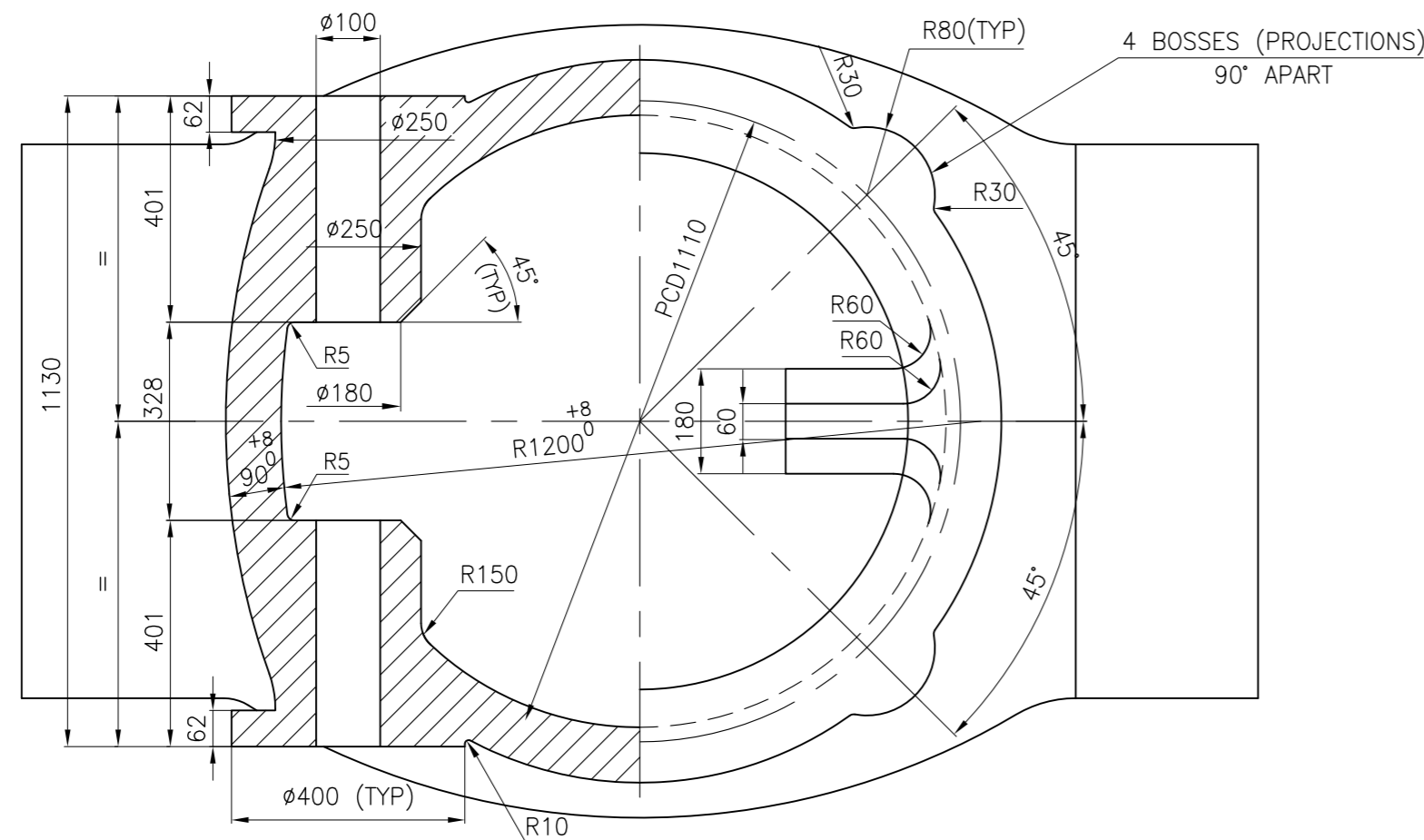
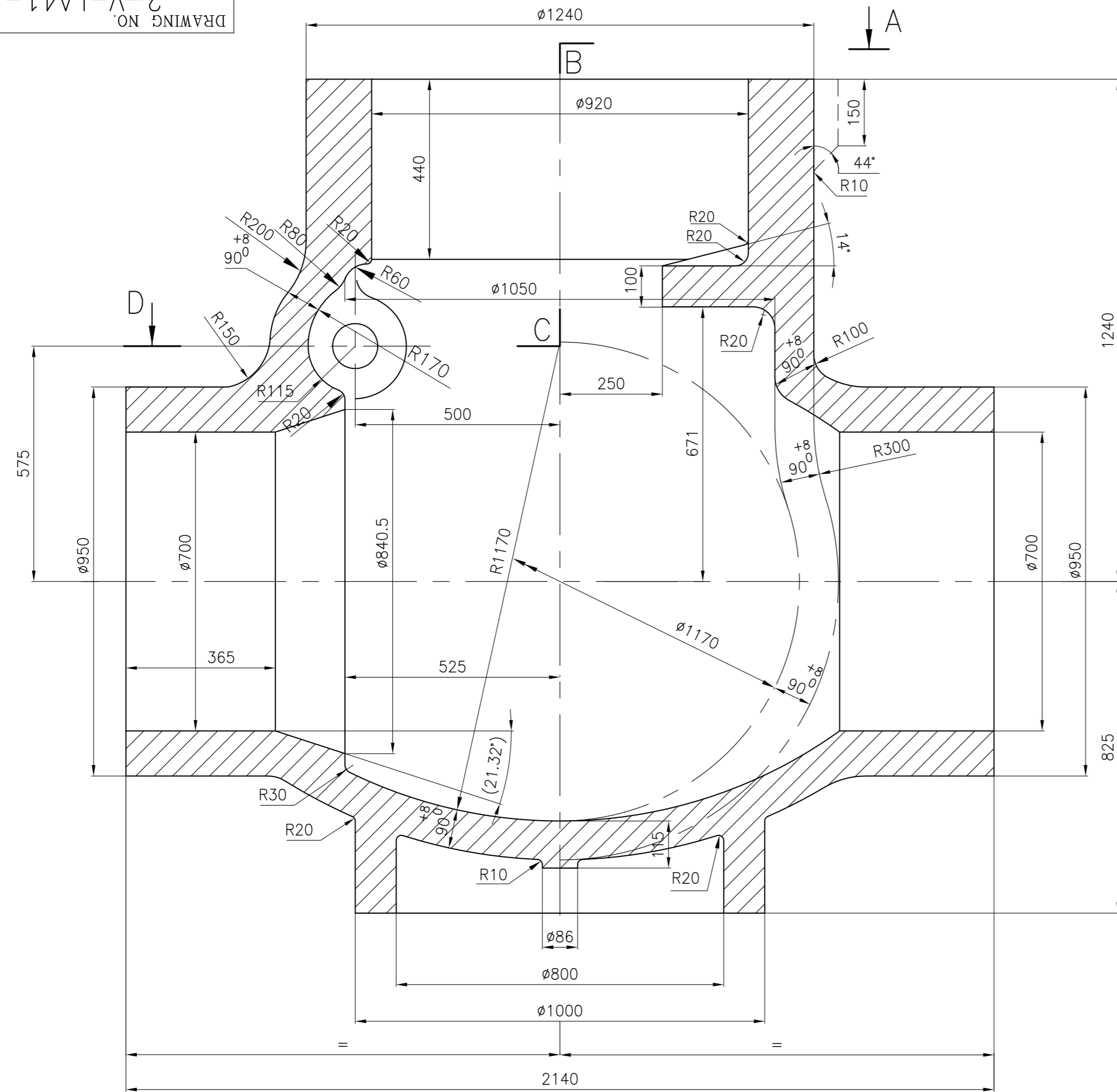
DEPT	VL	SCALE	WEIGHT (KG)	REFERENCE INFORMATIONS	NO. OF ITEMS
320		N.T.S	6675		
TITLE	CARD CODE	DRAWING NO.	REV		
BODY (800MM/600CL) (32"/600CL)	U 01	2-V-0000-17555R	01		

REV	DATE	ALTERED	JALAL
01	18.01.12	CHD & APPD	PRK
ZONE	S.No.3 AND 4 ADDED. DIMENSIONS ø155 AND 45° ADDED. TOLERANCE FOR R1200 ADDED. NOTES MODIFIED. DCP No.:801272		

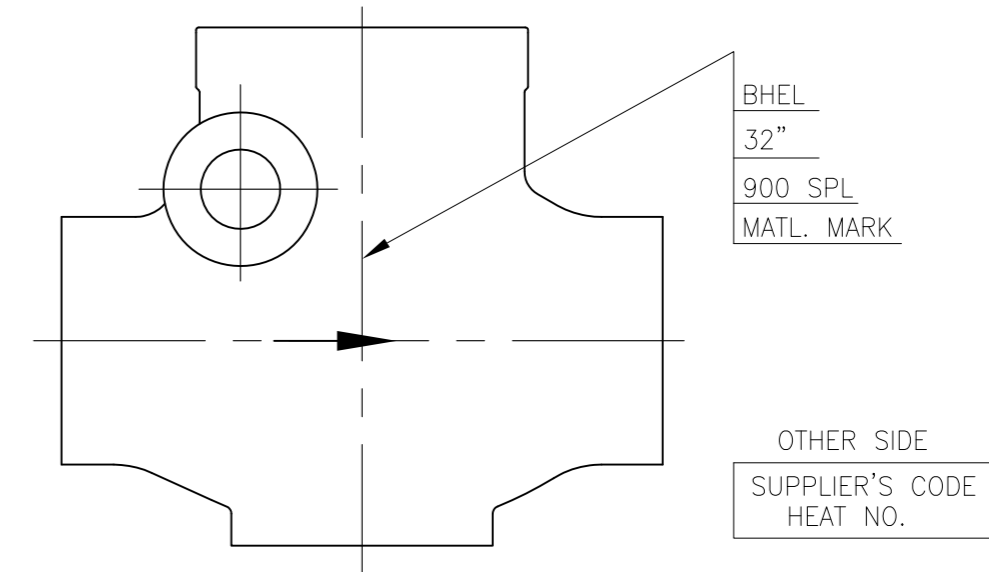
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DRAWING NO. 2-V-LA41-17615R

ALL DIMENSIONS ARE IN MILLIMETRES. FOR TOLERANCES OF UNTOLERANCED DIMENSIONS DURING MANUFACTURE REFER RELEVANT QCP / QP



SECTION ABCD



**NOTES:**

1. CASTINGS ARE TO BE SUBJECTED TO RT/UT ON ALL CRITICAL LOCATIONS AS PER APPLICABLE LATEST QUALITY PROCEDURE.
2. ALL EXTERIOR AND ACCESSIBLE INTERIOR SURFACES OF BODY SHALL BE MPI/LPI TESTED AS PER APPLICABLE LATEST QUALITY PROCEDURES.
3. DOTTED LINE SHOWS FINISH MACHINED CONFIGURATION.
4. FOR ALL OTHER DETAILS LIKE DIMENSIONAL TOLERANCE, EMBOSING, ETC. REFER APPLICABLE LATEST QUALITY PROCEDURES.

01	921528420000	2-V-LA41-17615R/00	SA217-WC9 SPL ATTEST NT	WC9					
S.NO	MATERIAL CODE	DRAWING NUMBER	MATERIAL SPECIFICATION	MATL. MARK					
No OFF	DESCRIPTION	MATL CODE	MATL SPECN	HEAT TREATMENT	SCRAP SORT	NET WT (kg)	GROSS WT (kg)	DRAWING No	ITEM No

TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT: **QN**

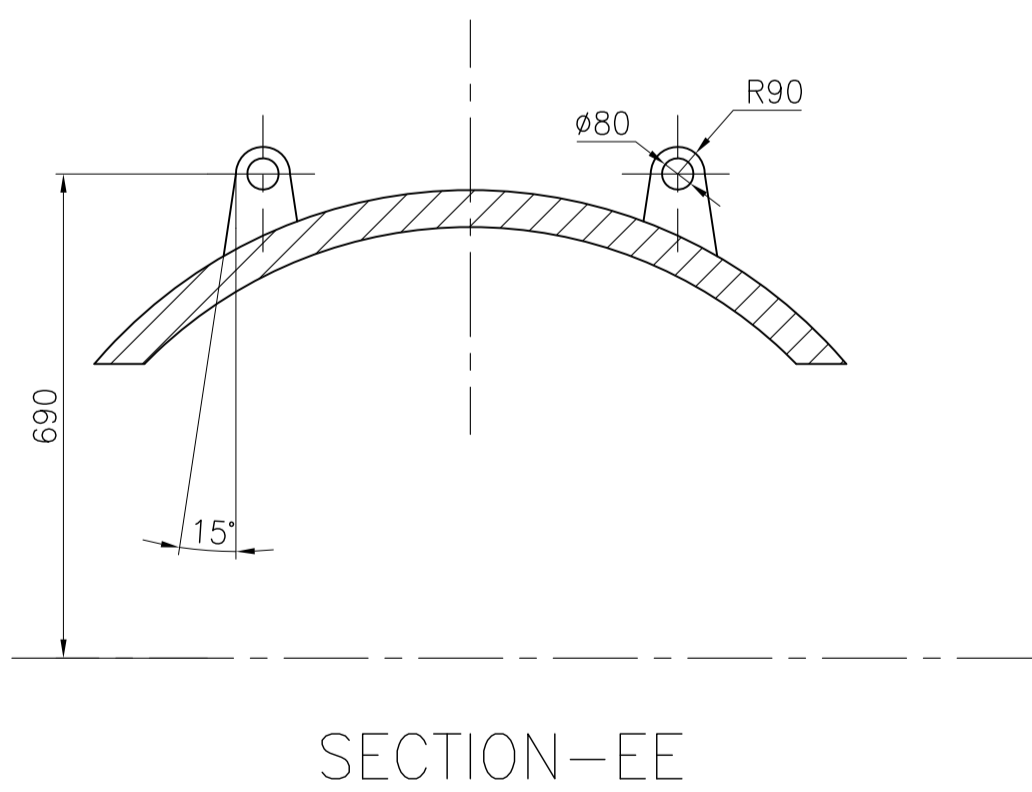
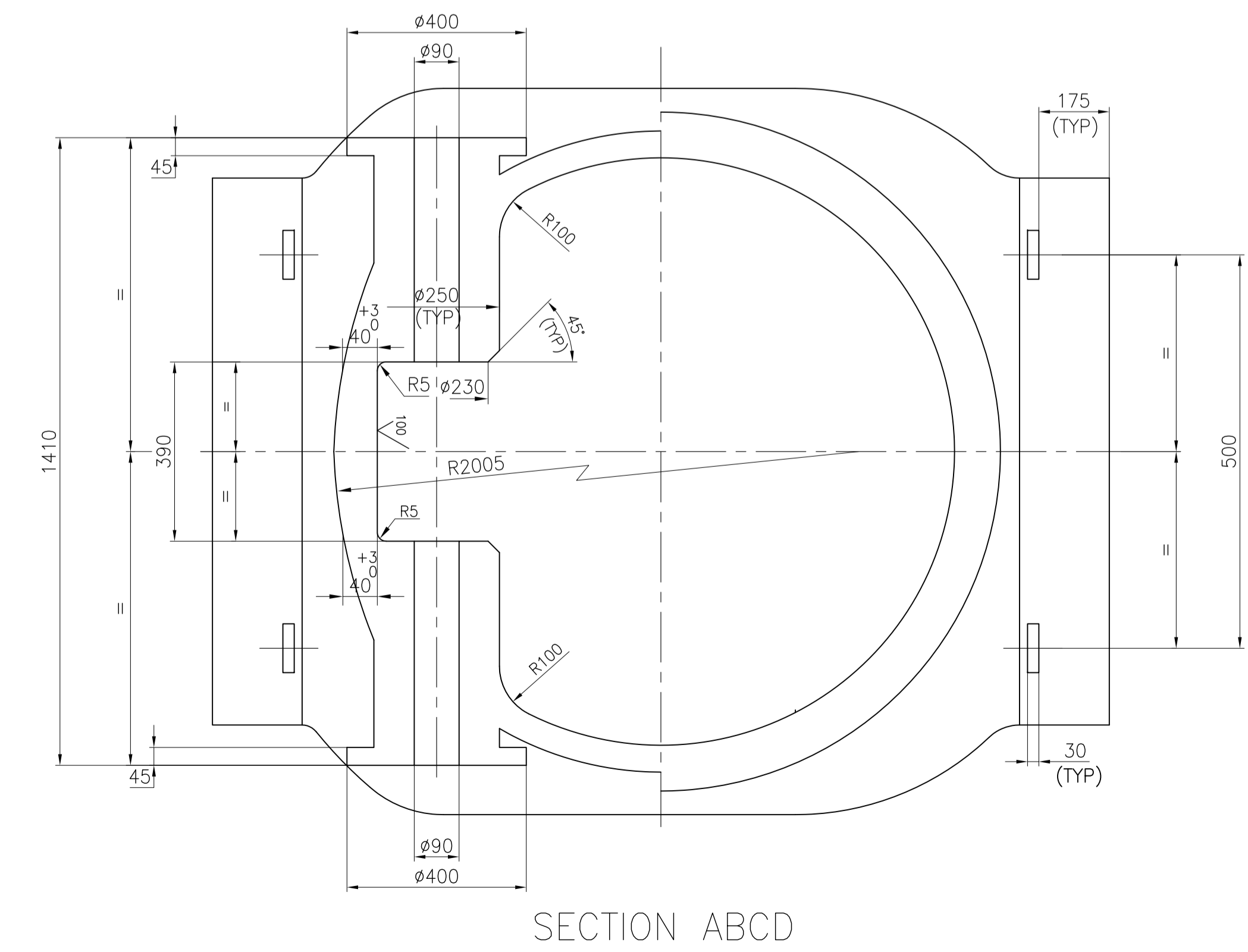
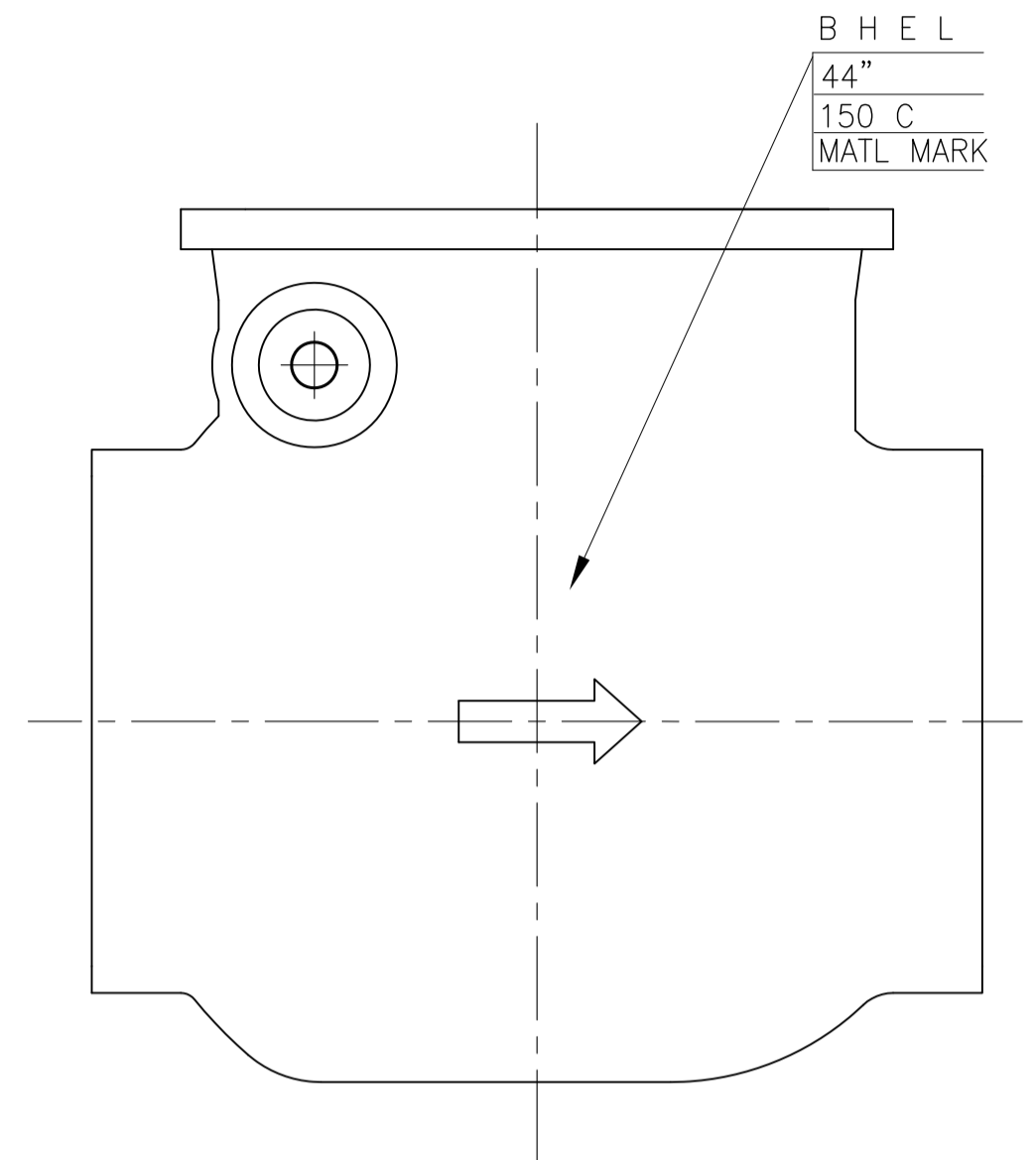
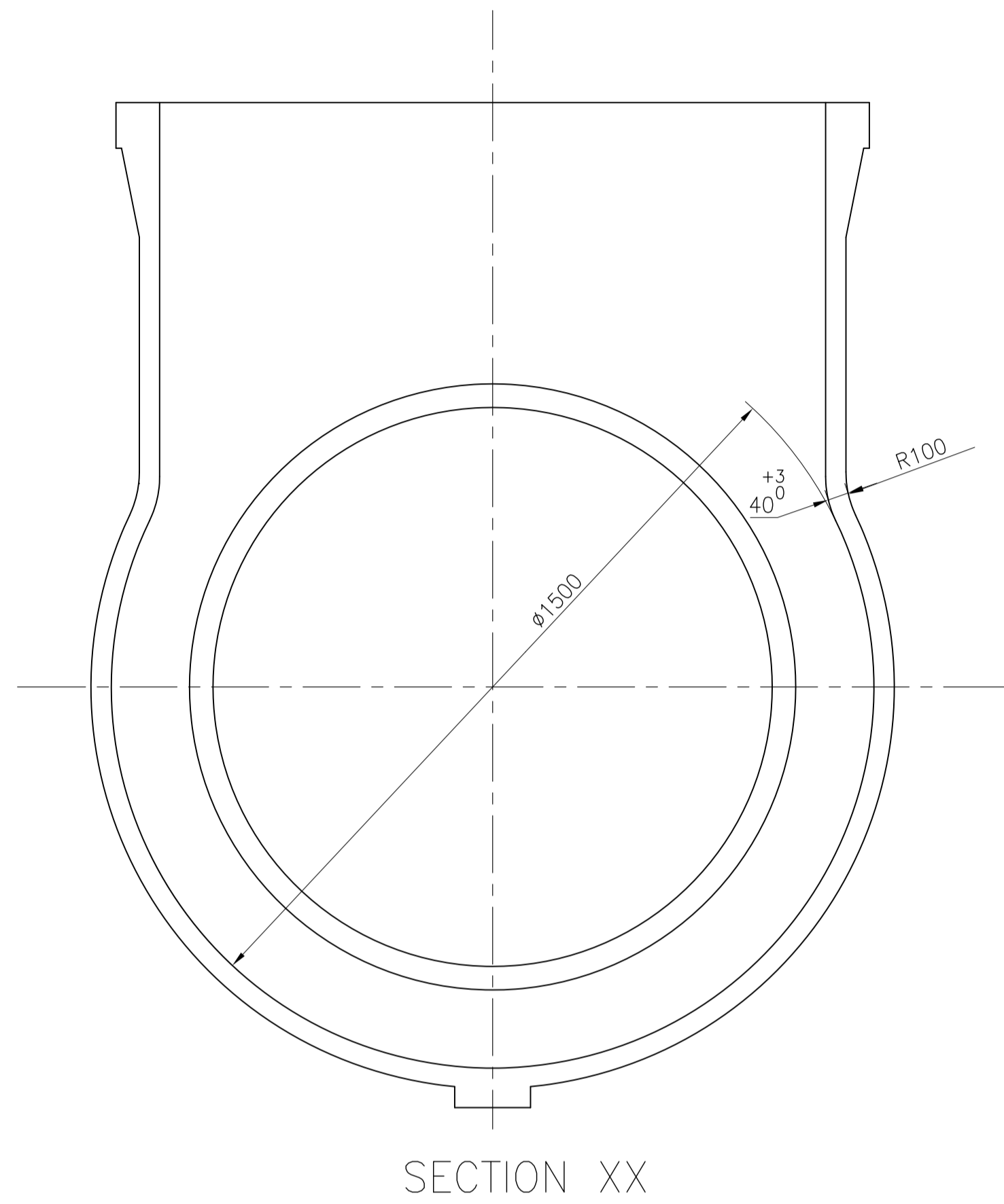
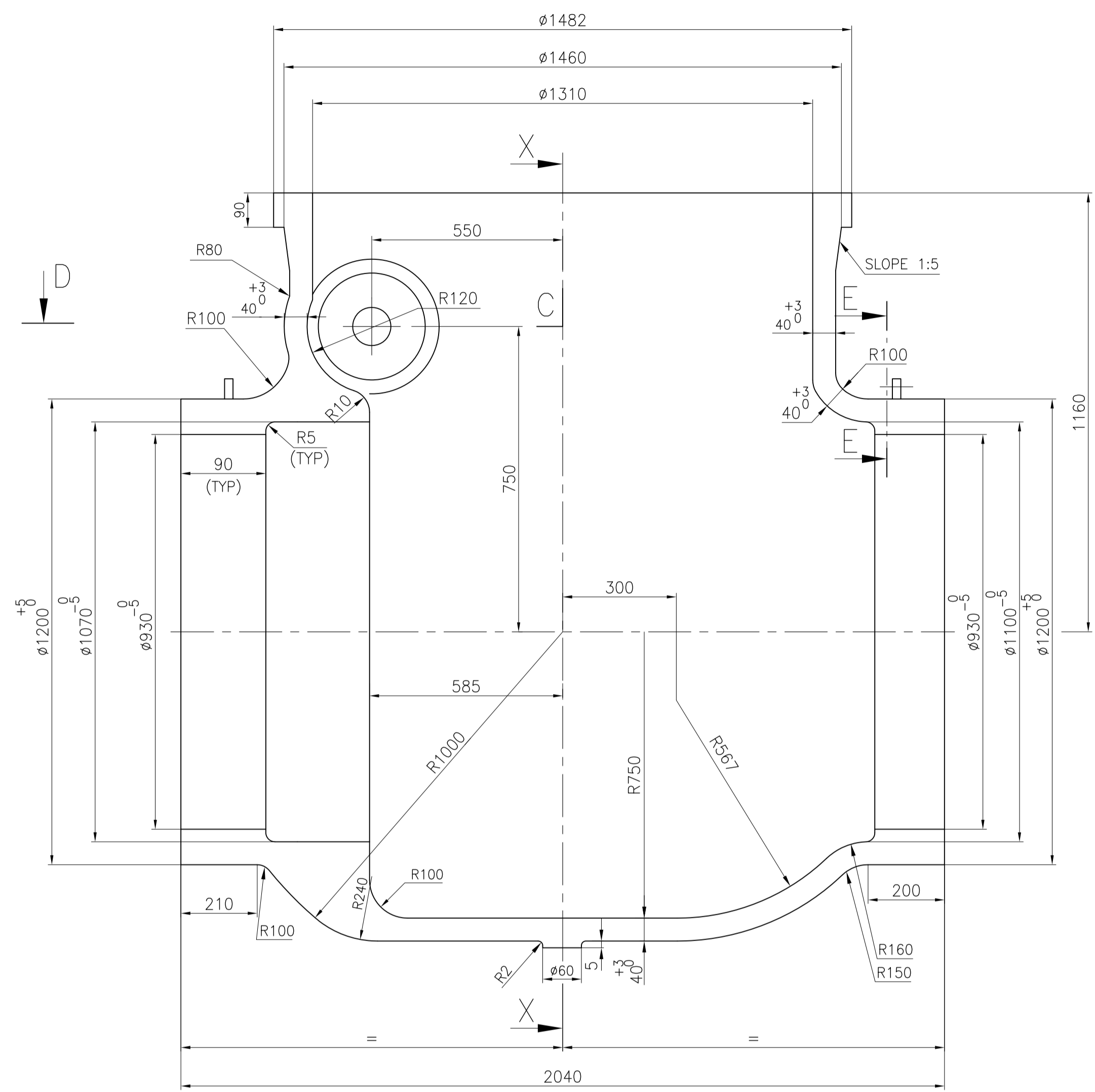
	<b>BHARAT HEAVY ELECTRICALS LTD.,</b> UNIT: HIGH PRESSURE BOILER PLANT. TIRUCHIRAPALLI-620014.		DRN	NAME	SIGN	DATE	NO.OF VAR.
	365-120	CHD	JALAL	JALAL	01.01.13		
	APPD	MRK	MRK	01.01.13			

REV	DATE	ALTERED
		CHD & APPD
ZONE		

DEPT	VL	SCALE	WEIGHT (KG).	REFERENCE INFORMATION	NO. OF ITEMS
320		N.T.S	8870		
TITLE			CARD CODE	DRAWING NO.	REV
BODY (32"/C900 SPL)			U 01	2-V-LA41-17615R	00

DRAWING NO. 1-V-0000-13049R

ALL DIMENSIONS ARE IN MILLIMETRES. FOR TOLERANCES OF UNTOLERANCED DIMENSIONS DURING MANUFACTURE REFER RELEVANT QCP/QP



NOTES:

1. CASTINGS ARE TO BE SUBJECTED TO RT/UT ON ALL CRITICAL LOCATIONS AS PER APPLICABLE LATEST QUALITY PROCEDURES
2. ALL EXTERIOR AND ACCESSIBLE INTERIOR SURFACES OF BODY SHALL BE MPI/LPI TESTED AS PER APPLICABLE LATEST QUALITY PROCEDURES.
3. FOR ALL OTHER DETAILS LIKE DIMENSIONAL TOLERANCE, EMBOSING, PUNCHING DETAILS REFER APPLICABLE LATEST QUALITY PROCEDURE
4.  $\sqrt{100}$  INDICATES THE CASTING SURFACES WHICH MUST BE OF HIGH QUALITY WITHOUT SURFACE UNEVENNESS.

03	1-V-LA54-13049R	921528610000	SA217 WC9 AT ATTEST	WC9					
02	1-V-LA53-13049R	921528600000	SA217 WC6 NT ATTEST	WC6					
01	1-V-LA52-13049R	921528590000	SA216 WCB AN ATTEST	WCB					
SL. No.	DRAWING No.	MATL. CODE	MATL. SPECN.	MATL. MARK					
NO OFF	DESCRIPTION	MATL CODE	MATL SPECN	HEAT TREATMENT	SCRAP SORT	NET WT (kg)	GROSS WT (kg)	DRAWING No	ITEM No
TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT		QN							
DEPT VL		SCALE		WEIGHT (KG).		REFERENCE INFORMATIONS			
CODE 320		N T S		5035					
TITLE		CARD CODE		DRAWING NO. REFER TABLE		REV			
CASTING		BODY		44"/150 CLASS		U 01		1-V-0000-13049R	

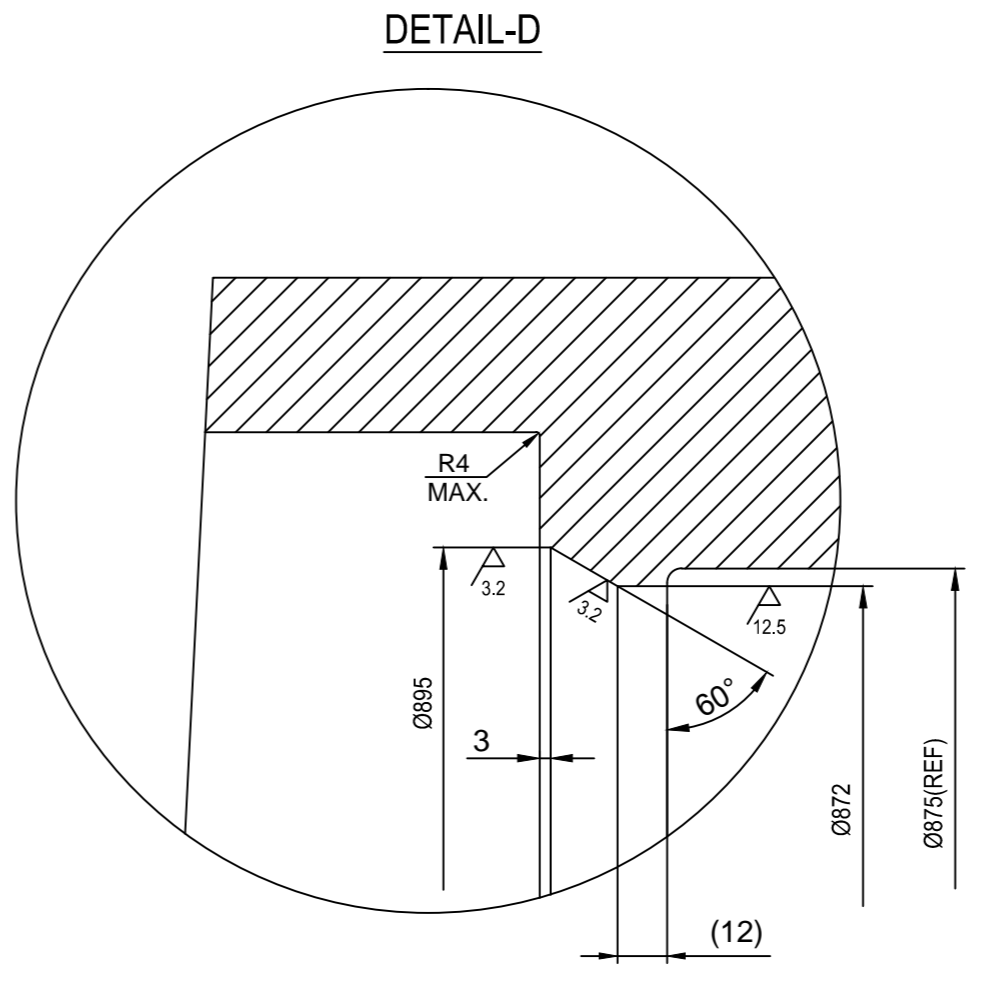
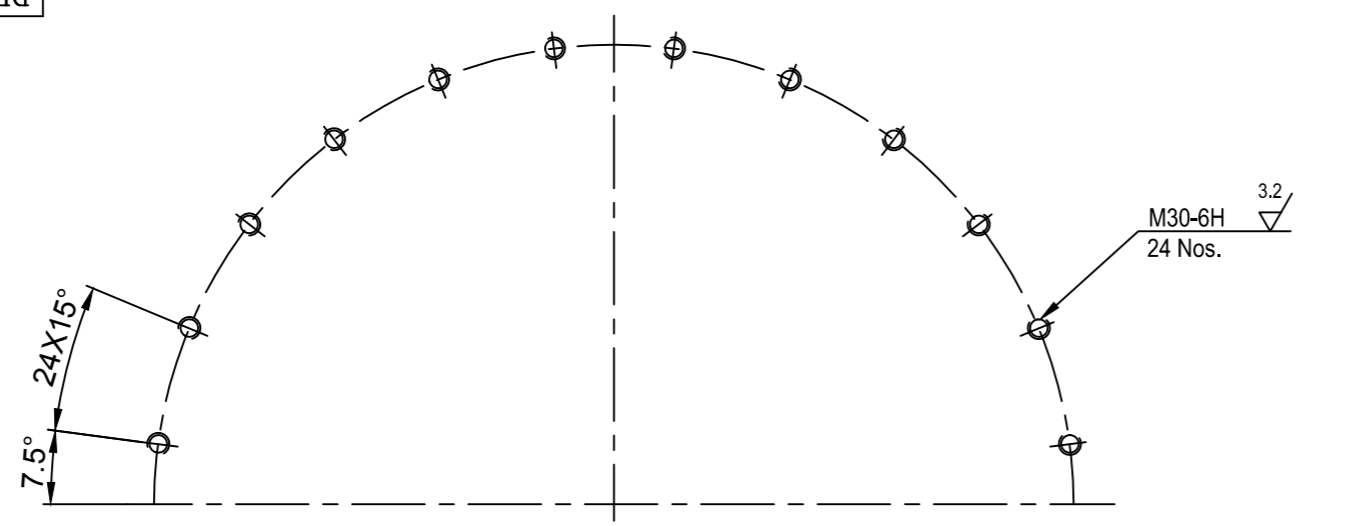
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REV	DATE	ALTERED
		CHD & APPD
ZONE		

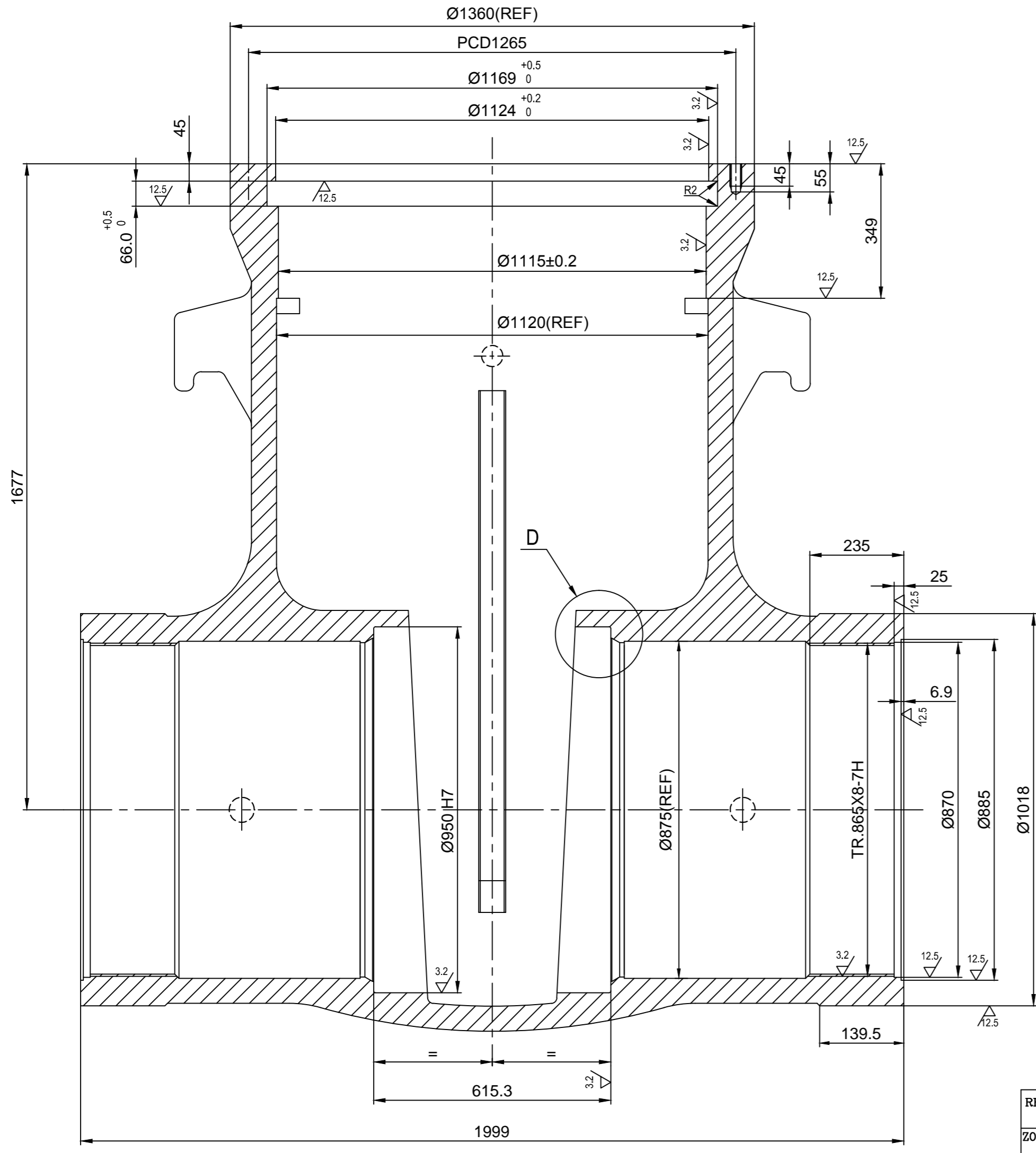
DRAWING NO. 2-V-0000-14788

ALL DIMENSIONS ARE IN MILLIMETRES. FOR TOLERANCES OF UNTOLERANCED DIMENSIONS DURING MANUFACTURE REFER RELEVANT QCP / QP

12.5 3.2



Ø950-H7	+0.090
	0



01	CASTING	-	SA216 WCC ATTEST	NORMALISED	-	6610	-	2.V.F999.14788	-
No OFF	DESCRIPTION	MATL CODE	MATL SPECN	HEAT TREATMENT	SCRAP SORT	NET WT (kg)	GROSS WT (kg)	DRAWING No	ITEM No

TYPE OF PRODUCT  
OR NAME OF  
CUSTOMER/PROJECT

	BHARAT HEAVY ELECTRICALS LTD.,		DRN	M.SRINIVASAN	SIGN	DATE	NO. OF
	UNIT: HIGH PRESSURE BOILER PLANT.		CHD	S.SATHEESKUMAR		22.10.12	VAR.
	TIRUCHIRAPALLI-620014.		APPD	M.RAJAKUAMR		22.10.12	

DEPT	V L	SCALE	WEIGHT (KG).	REFERENCE INFORMATION	NO. OF
CODE	320	NTS	REF.TABLE	CAD :C214788	ITEMS

TITLE	CARD CODE	DRAWING NO.	REV
BODY ROUGH ( 38 - C600 )	U 01	2-V-0000-14788	

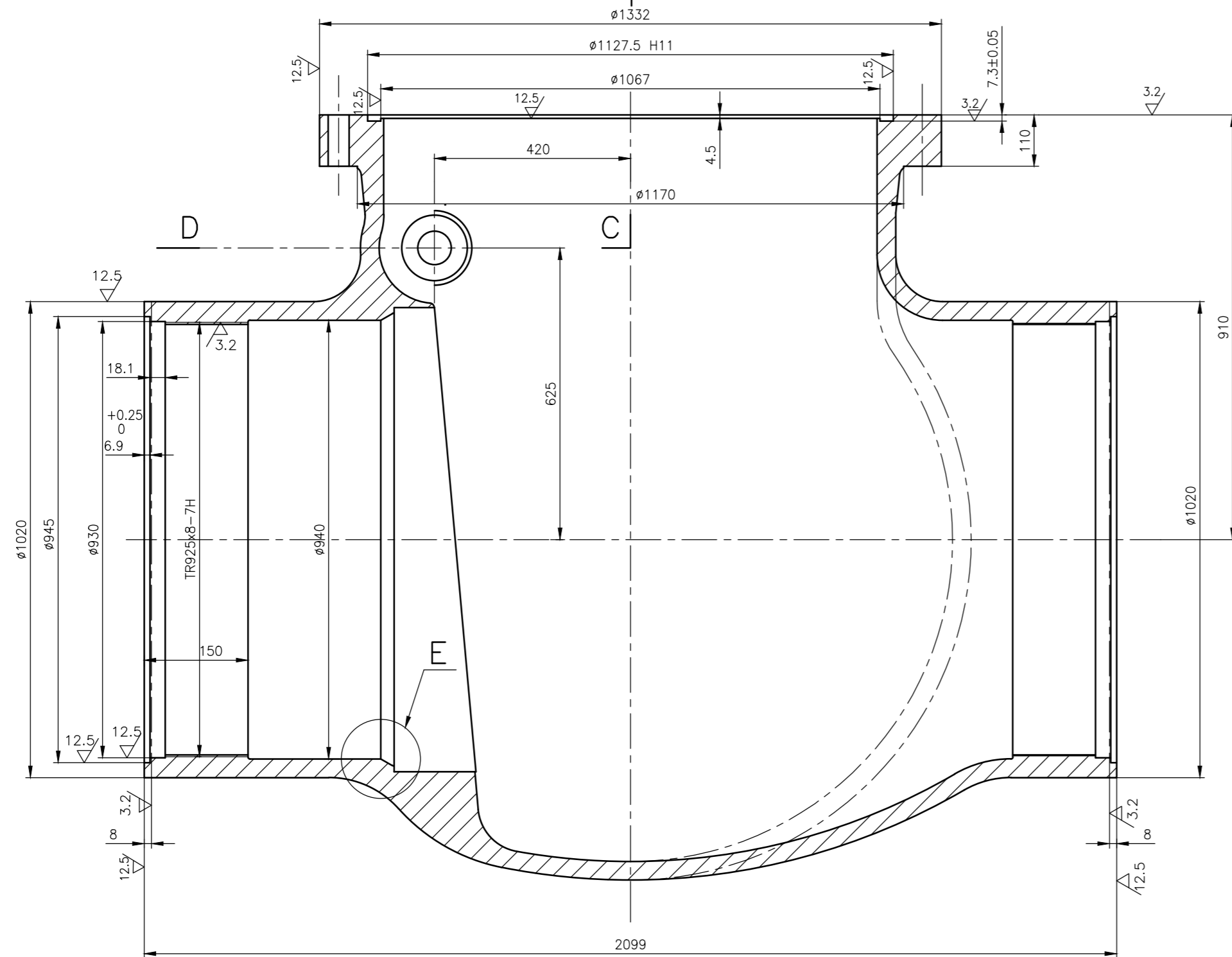
REV	DATE	ALTERED
		CHD & APPD
ZONE		

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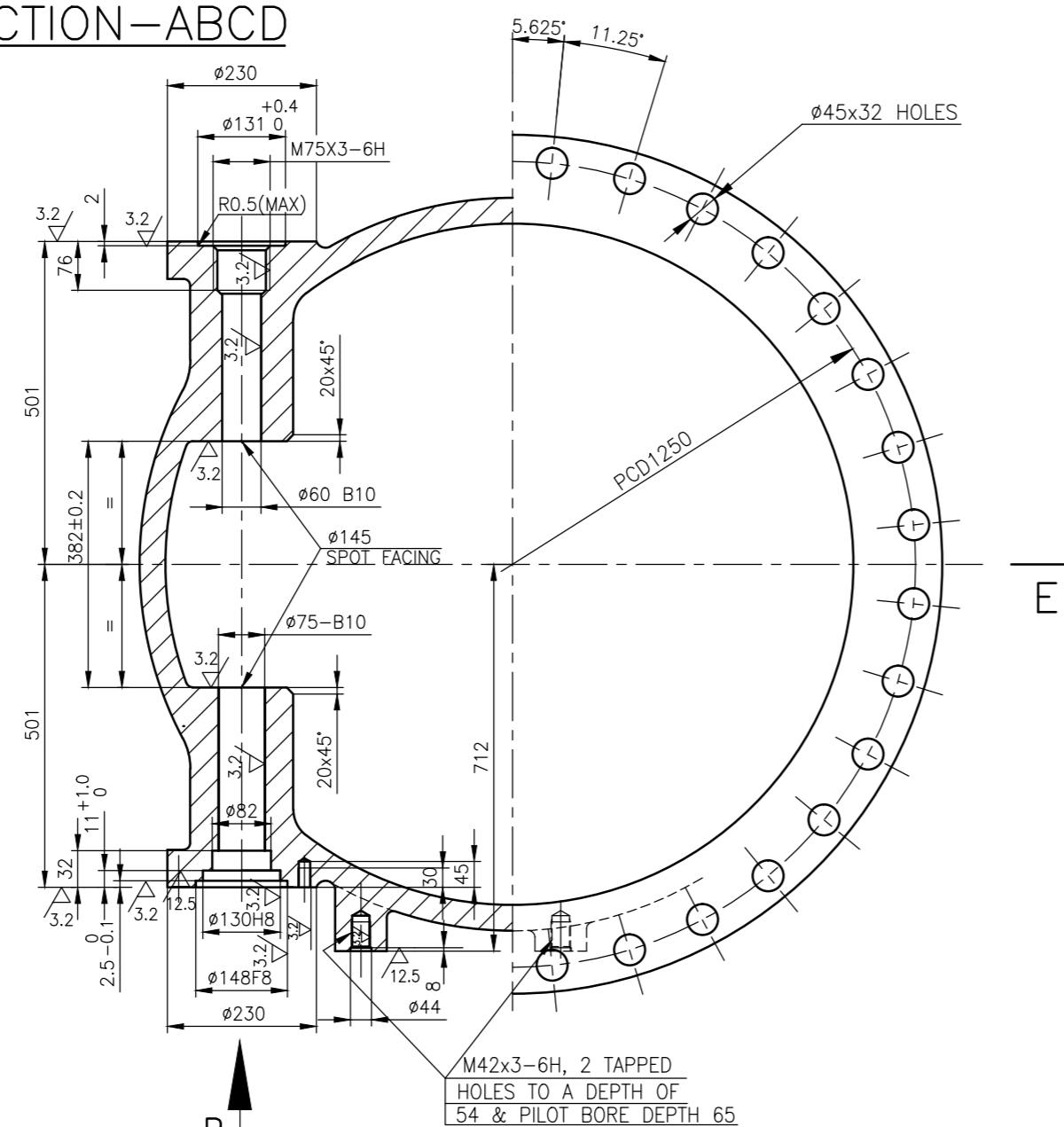
DRAWING NO. 2-V-0000-14840

SECTION-EE

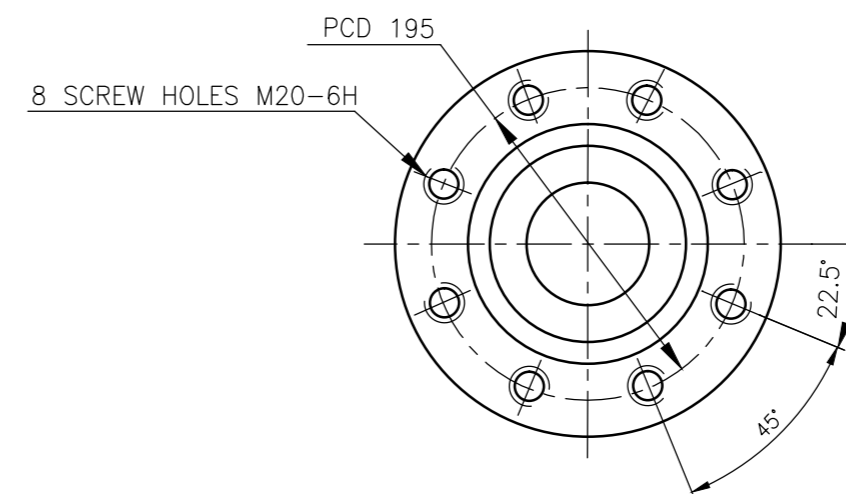
ALL DIMENSIONS ARE IN MILLIMETRES. FOR TOLERANCES OF UNTOLERANCED DIMENSIONS DURING MANUFACTURE REFER RELEVANT QCP / QP



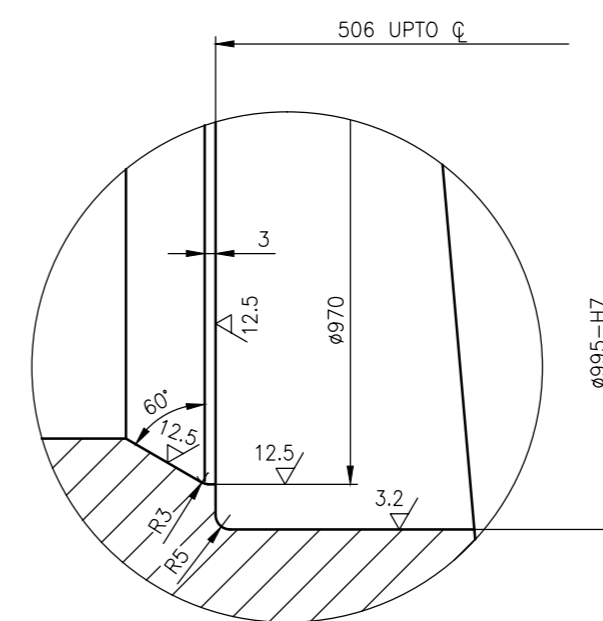
SECTION-ABCD



VIEW-P



DETAIL-E  
MACHINING BEFORE  
SEATING WELDING



① 12.5 3.2

Ø148-F8	+0.106
	+0.043
Ø60-B10	+0.310
	+0.190
Ø75-B10	+0.320
	+0.200
Ø995-H7	+0.090
	0
Ø50-80 H7	+0.030
	0
Ø120-180 H8	+0.063
	0
Ø1127.5 H11	+0.660
	0

NOTES:

1. APPLICABLE LATEST QUALITY WORK INSTRUCTION SHALL BE FOLLOWED IN ALL RESPECTS.

02	2-V-2079-14840	SA216 WCB,NR, ATTEST	93 202 874 8000	2-V-2079-14787R	10
01	2-V-2077-14840	SA217 WC9,NT, ATTEST	93 202 761 8000	2-V-2077-14787R	20
SL No.	DRAWING No.	MATERIAL SPECN.	COMP. CODE	CASTING DRAWING No.	SCRAP SORT

No OFF	DESCRIPTION	MATL CODE	MATL SPECN	HEAT TREATMENT	SCRAP SORT	NET WT (kg)	GROSS WT (kg)	DRAWING No	ITEM No

TYPE OF PRODUCT  
OR NAME OF  
CUSTOMER/PROJECT

	<b>BHARAT HEAVY ELECTRICALS LTD.</b> UNIT: HIGH PRESSURE BOILER PLANT. TIRUCHIRAPALLI-620014.		DRN	V.BAIRAVAN	SIGN	DATE	06.05.13	NO. OF VAR.
	CHD	S.SATHEES				06.05.13		
	APPD	K.RAJASEKARAN				06.05.13		

DEPT	V L	SCALE	WEIGHT (KG).	REFERENCE INFORMATIONS	NO. OF ITEMS
CODE	320	N T S	3384		

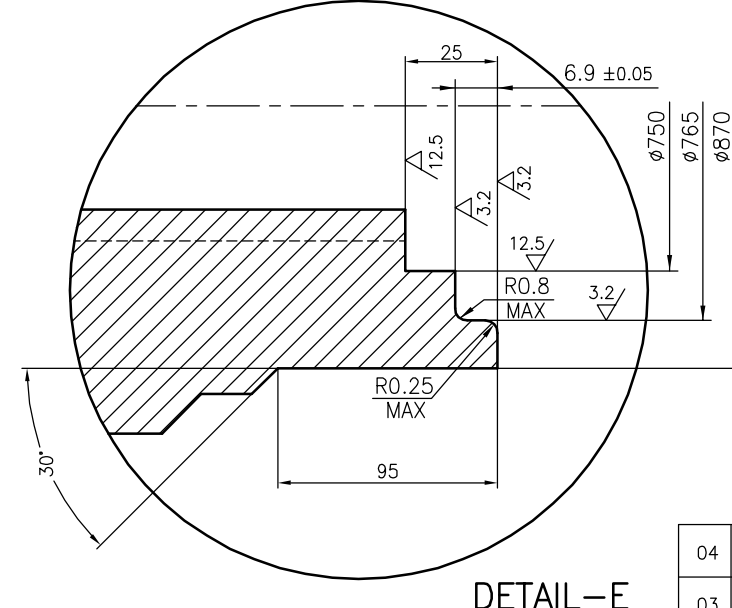
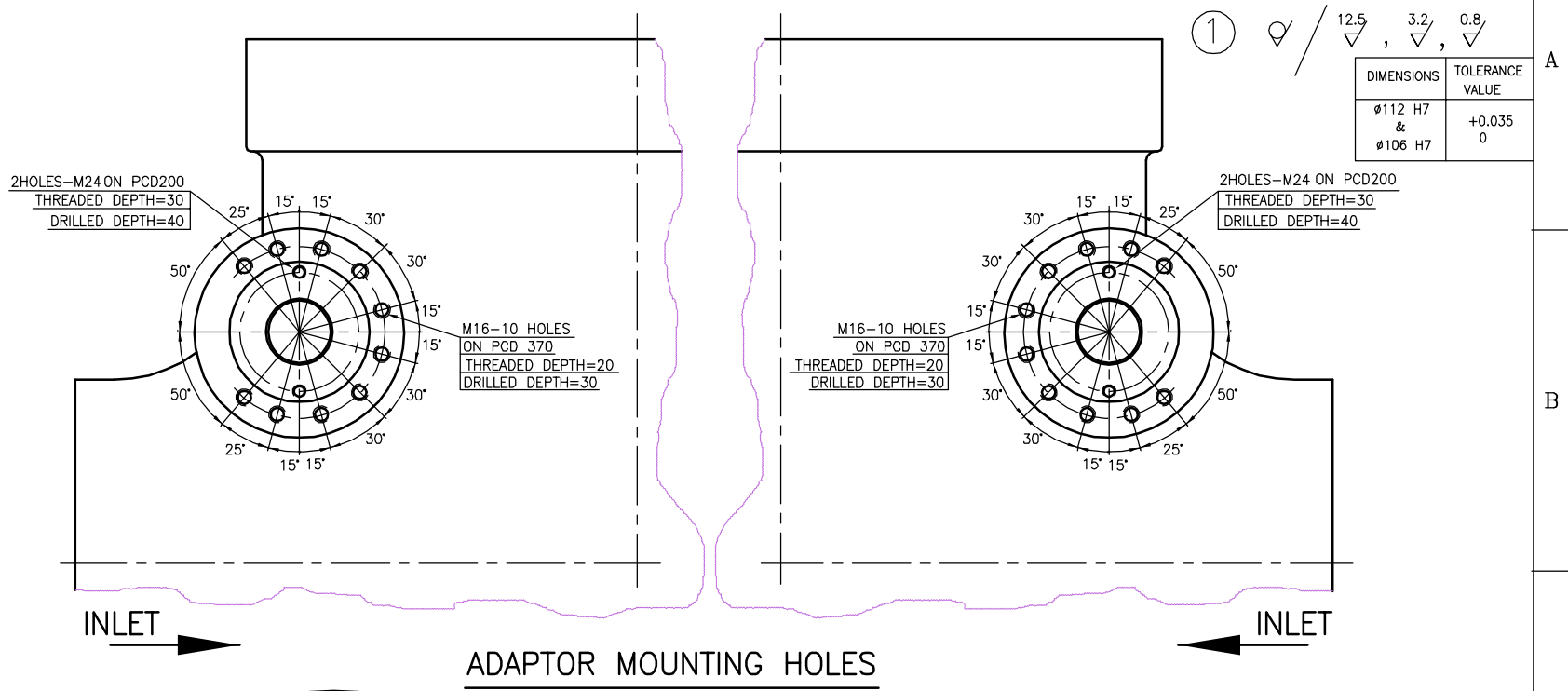
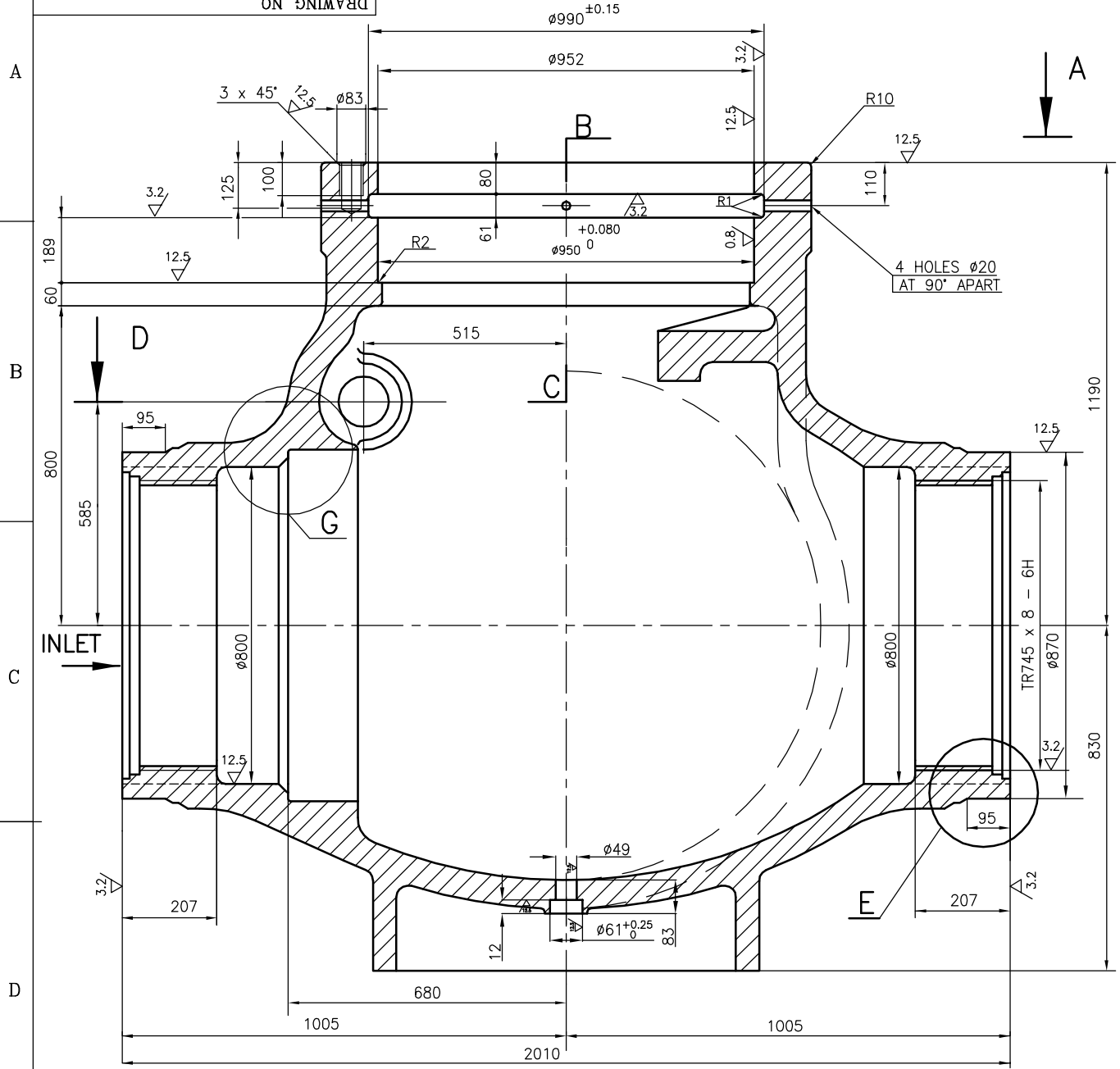
TITLE	CARD CODE	DRAWING NO.	REV
BODY (ROUGH) (38"-300CL)	U 01	2-V-0000-14840	

REV	DATE	ALTERED
		CHD & APPD
ZONE		

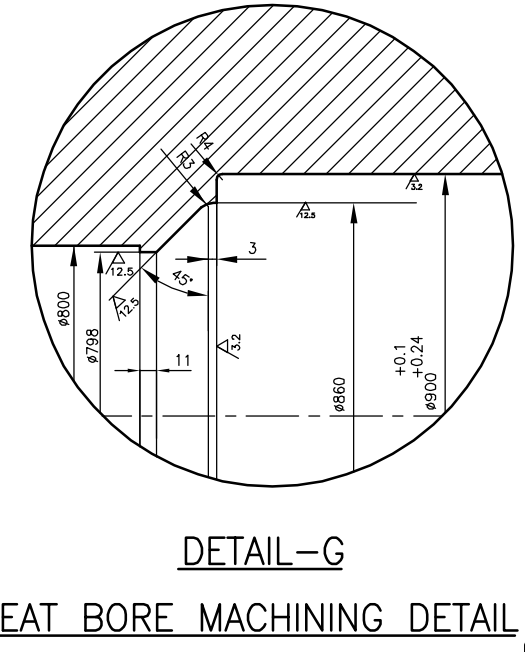
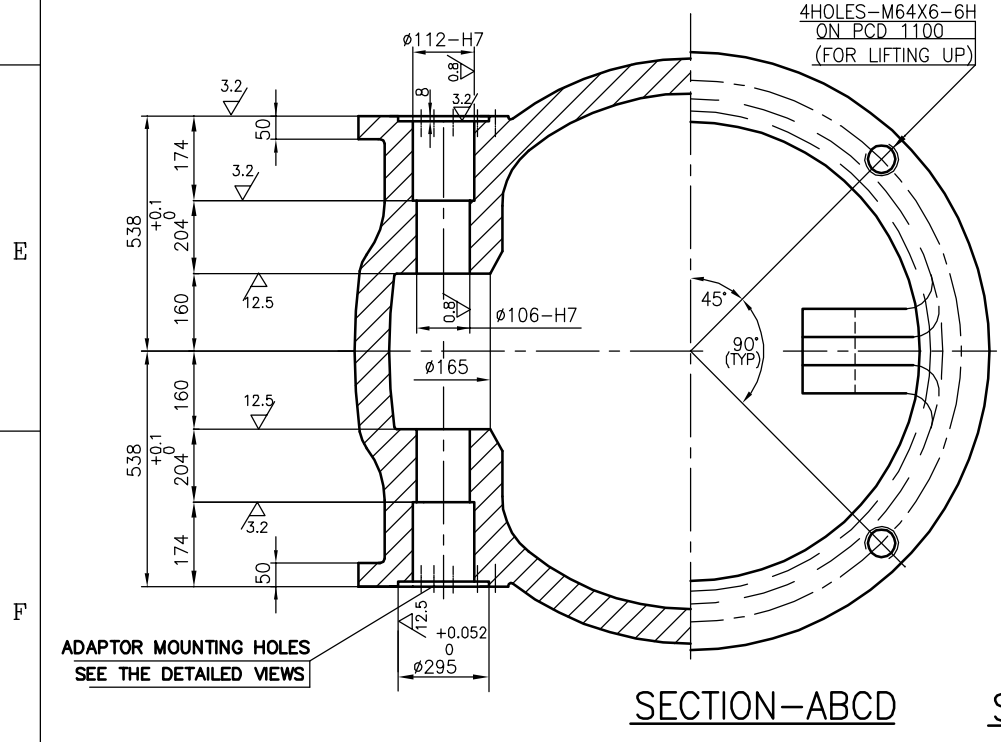
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829Z1-0000-17628  
DRAWING NO.

ALL DIMENSIONS ARE IN MILLIMETRES. FOR TOLERANCES OF UNTOLERANCED DIMENSIONS DURING MANUFACTURE REFER RELEVANT QCP / QP



**NOTE:-**  
1) APPLICABLE LATEST SQP SHALL BE FOLLOWED IN ALL RESPECTS.



04	2-V-LA14-17628/00	931225039000	2-V-LA14-17555R/00 921528070000	SA217-WC9 ATTEST NT	20
03	2-V-LA13-17628/00	931225029000	2-V-LA13-17555R/00 921528060000	SA217-WC6 ATTEST NT	20
02	2-V-L472-17628/00	931223879000	2-V-L472-17555R/01 921527800000	SA217-WC9 ATTEST NT	20
01	2-V-L471-17628/00	931223869000	2-V-L471-17555R/01 921527790000	SA217-WC6 ATTEST NT	20
S.NO	DRAWING NUMBER	COMP. CODE	CASTING DRAWING No. COMP.CODE	MATL.SPECN.	SCRAP.CODE

No OFF	DESCRIPTION	MATL CODE	MATL SPECN	HEAT TREATMENT	SCRAP SORT	NET WT (kg)	GROSS WT (kg)	DRAWING No	ITEM No
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TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT: **QN**

DRN	NAME	SIGN	DATE	NO.OF VAR.
365-120	BHARAT HEAVY ELECTRICALS LTD.	MANISH	06.05.13	
DEPT	UNIT: HIGH PRESSURE BOILER PLANT.	CHD	JALAL	06.05.13
VL	TIRUCHIRAPALLI-620014.	APPD	MRK	06.05.13

SCALE: N.T.S. WEIGHT (KG): 5860

REFERENCE INFORMATION: DRAWING NO. 2-V-0000-17628 REV 00

TITLE: **BODY ASSEMBLY (800MM/600CL)**  
(32"/600CL) MACHINING

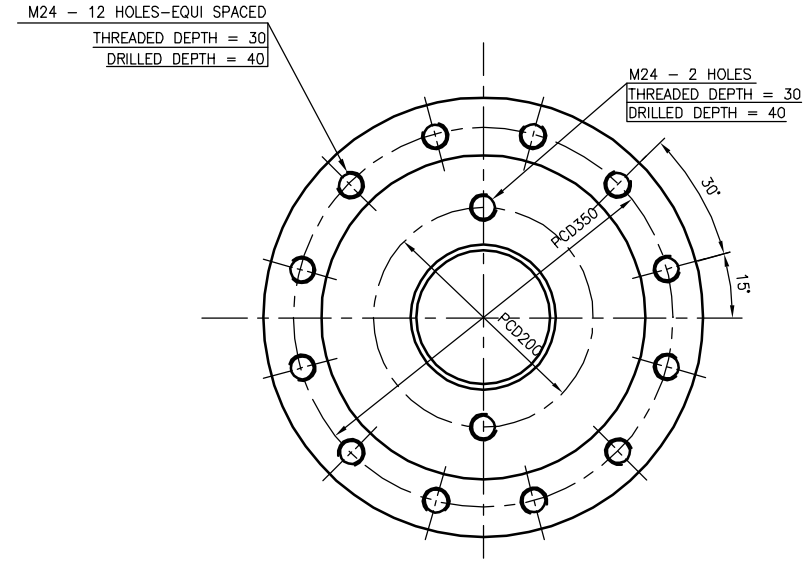
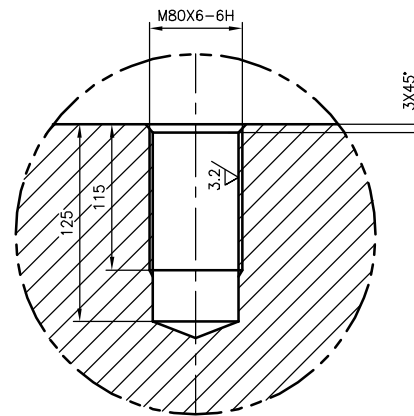
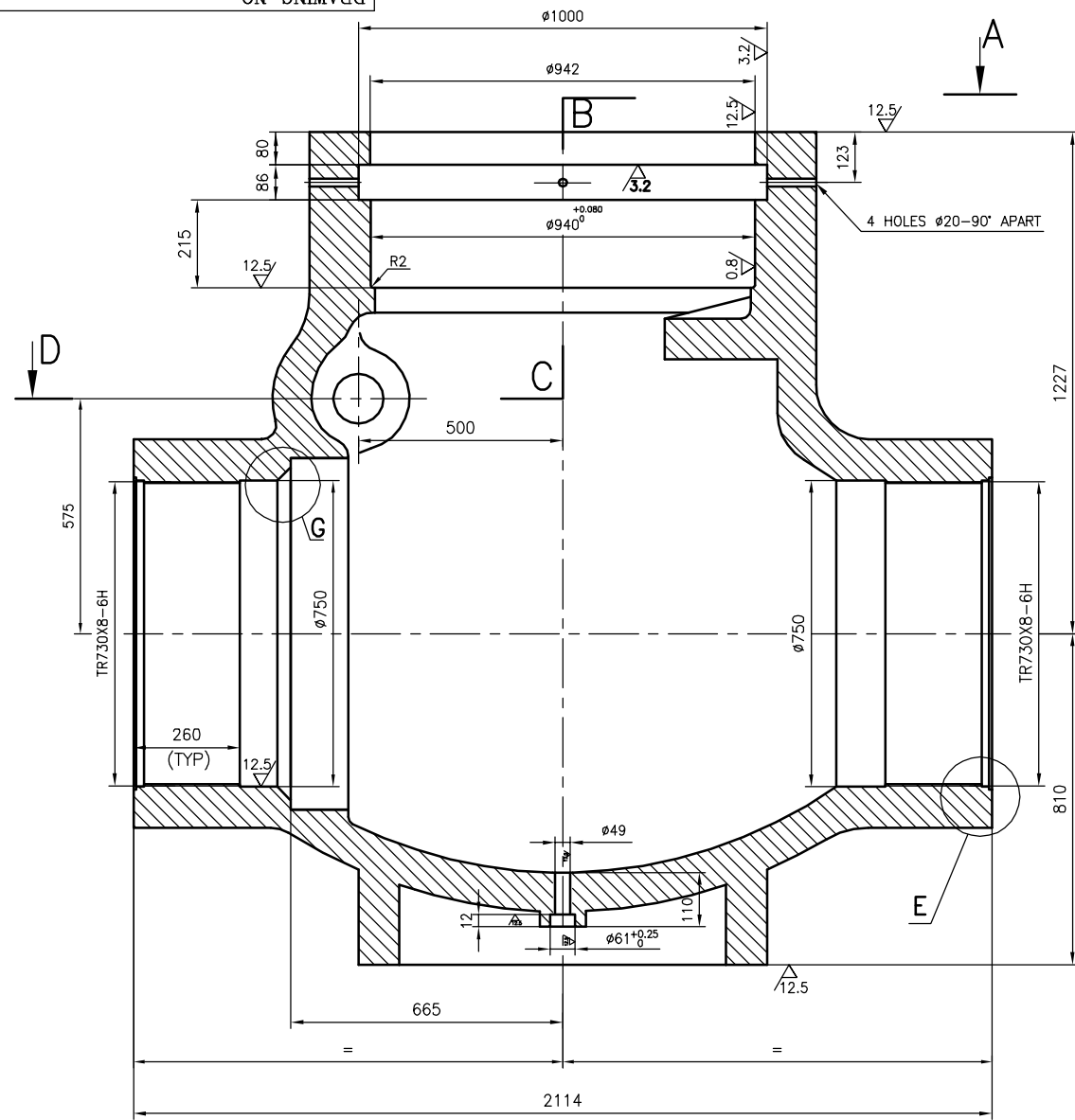
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REV	DATE	ALTERED
		CHD & APPD

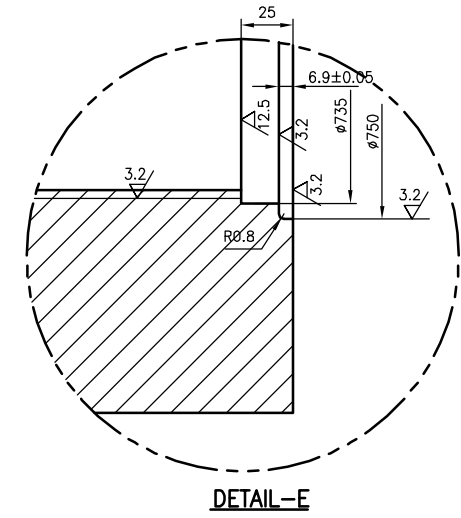
DRAWING NO. 2-V-LA41-17627

ALL DIMENSIONS ARE IN MILLIMETRES. FOR TOLERANCES OF UNTOLERANCED DIMENSIONS DURING MANUFACTURE REFER RELEVANT QCP / QP

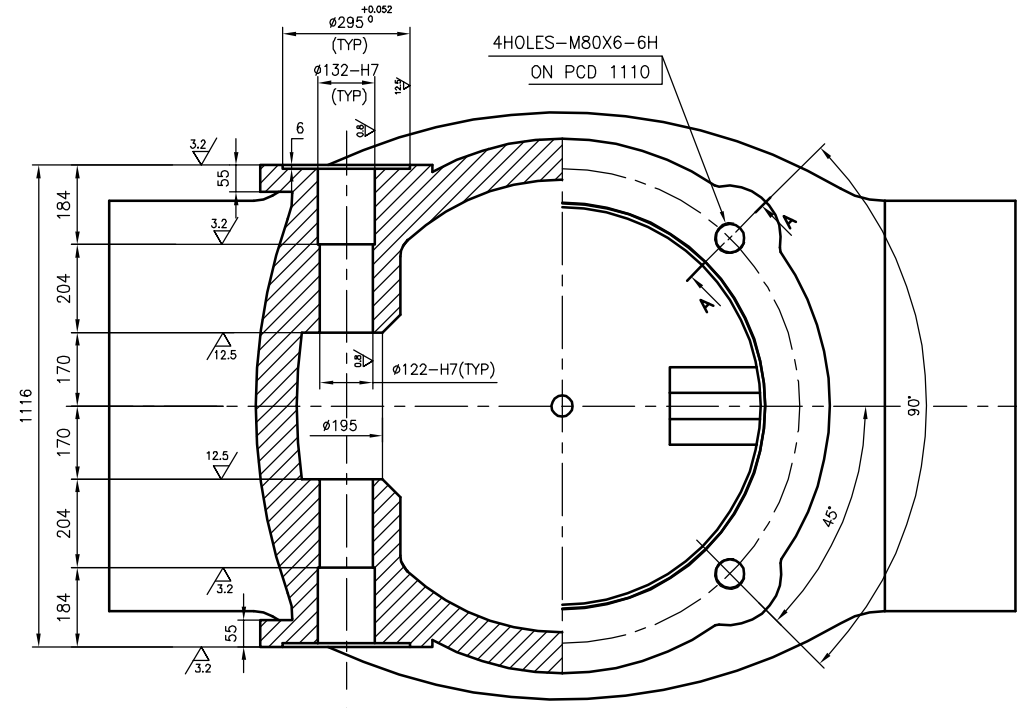
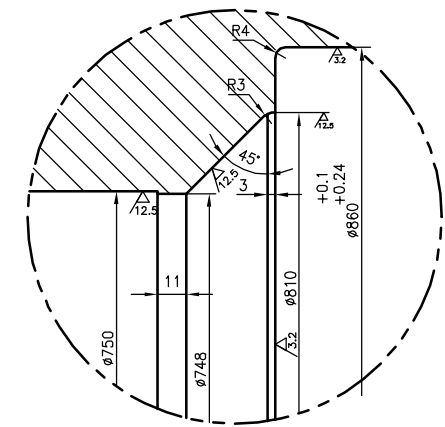
①  $\nabla$  /  $\nabla$  12.5, 3.2, 0.8



DIMENSIONS	TOLERANCE VALUE
$\phi 132$ H7 & $\phi 122$ H7	+0.035 0



**NOTE:-**  
 APPLICABLE LATEST SQP SHALL BE FOLLOWED IN ALL RESPECTS.  
 FOR TOLERANCE OF UNTOLERANCED DIMENSIONS REFER LATEST QCP:003



01	2-V-LA41-17627/00	931226319000	2-V-LA41-17615R/00 921528420000	SA217-WC9 SPL NT ATT.	20				
S.NO	DRAWING NUMBER	COMP. CODE	CASTING DRAWING No. COMP.CODE	MATL.SPECN.	SCRAP.CODE				
N <sup>o</sup> OFF	DESCRIPTION	MATL CODE	MATL SPECN	HEAT TREATMENT	SCRAP SORT	NET WT (kg)	GROSS WT (kg)	DRAWING No	ITEM No

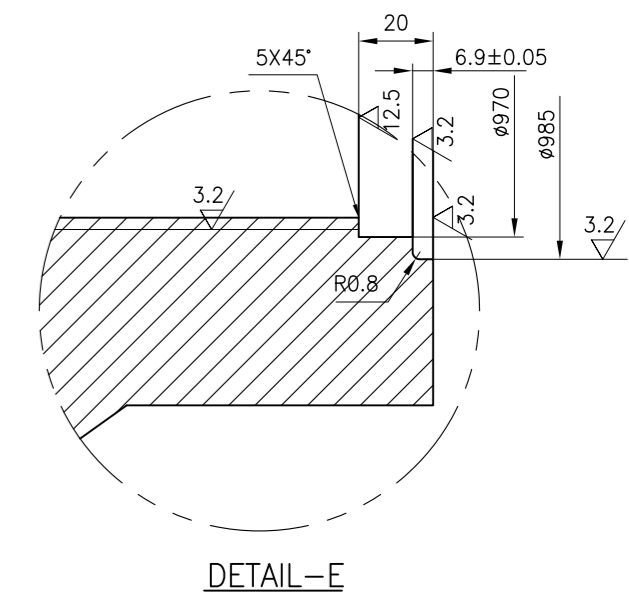
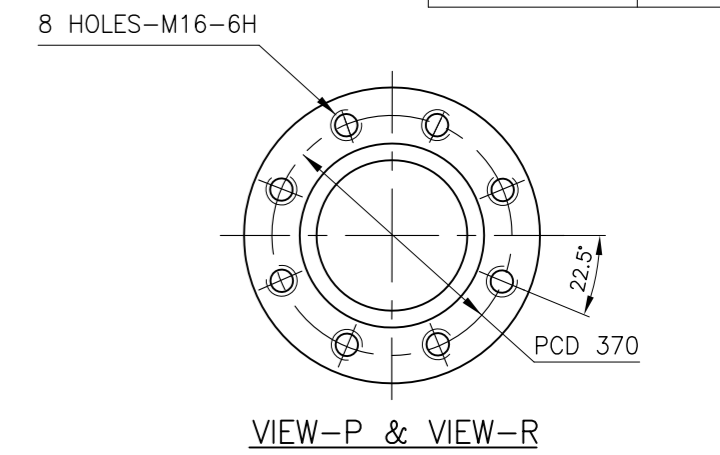
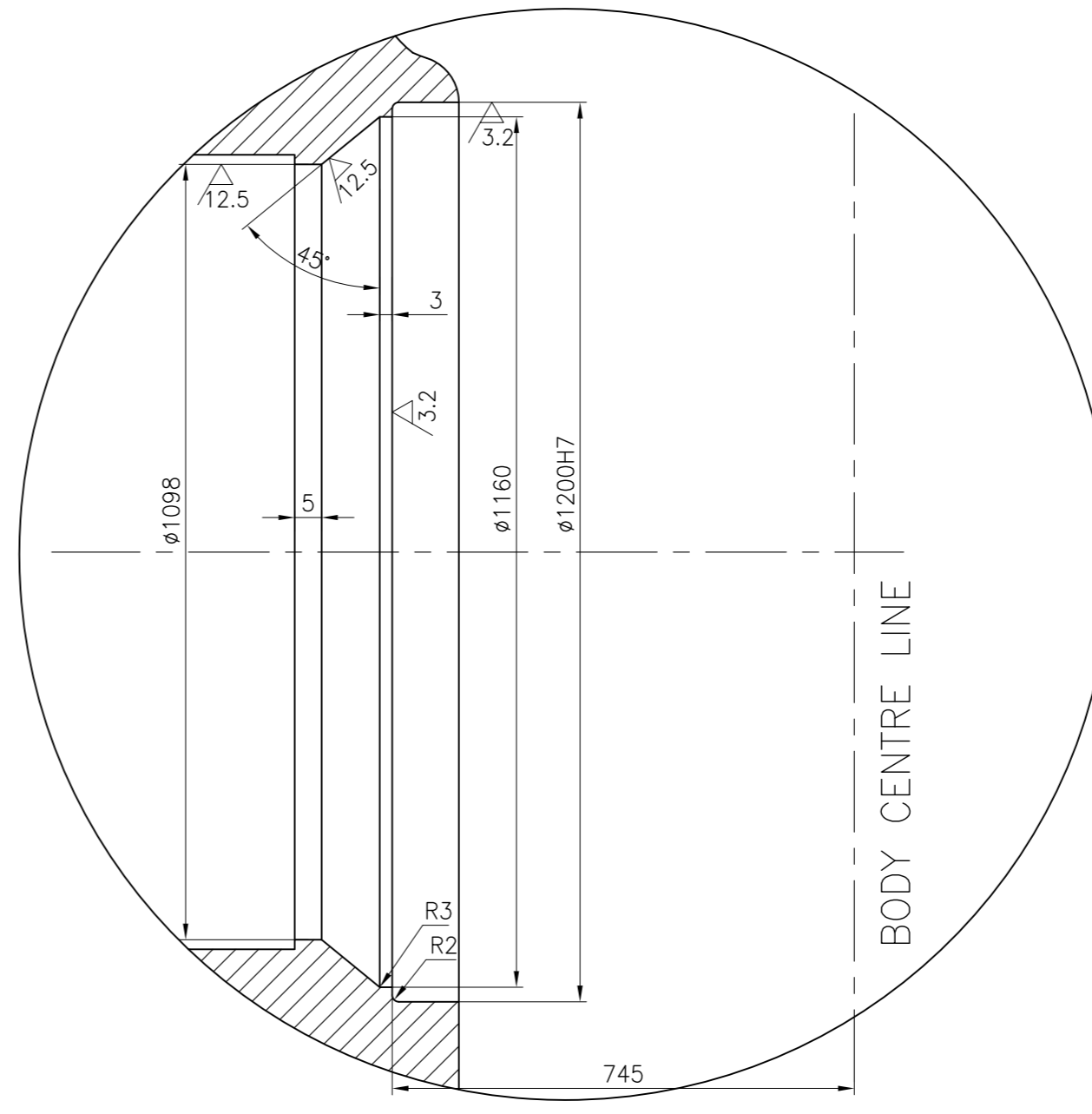
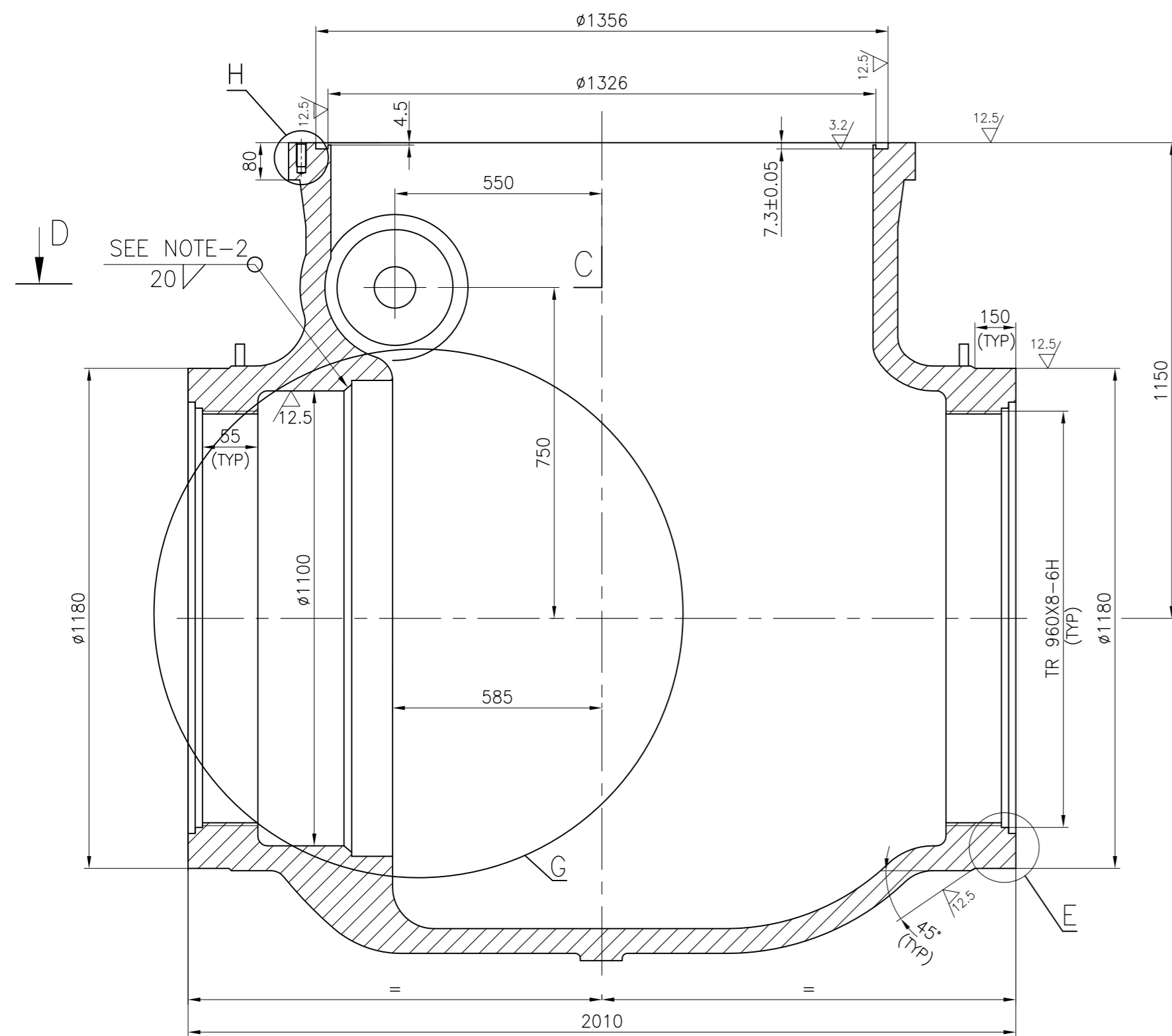
TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT						QN				
BHARAT HEAVY ELECTRICALS LTD. UNIT: HIGH PRESSURE BOILER PLANT. TIRUCHIRAPALLI-620014.						DRN	NAME MANISH	SIGN MANISH	DATE 06.05.13	NO.OF VAR.
365-120						CHD	JALAL	JALAL	01.01.13	
DEPT VL						APPD	MRK	MRK	01.01.13	
CODE 320						SCALE	WEIGHT (KG)		REFERENCE INFORMATION	
ZONE						N.T.S	8350		NO. OF ITEMS	
TITLE						DRAWING NO.		REV		
BODY ASSEMBLY (32"/C900 SPL)						2-V-LA41-17627		00		
MACHINING						U 01				

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

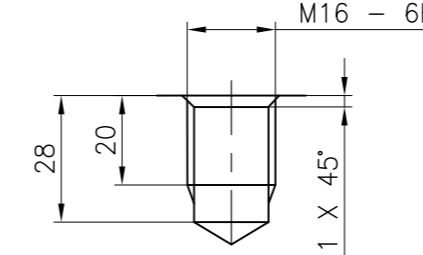
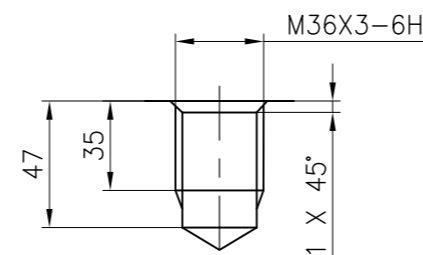
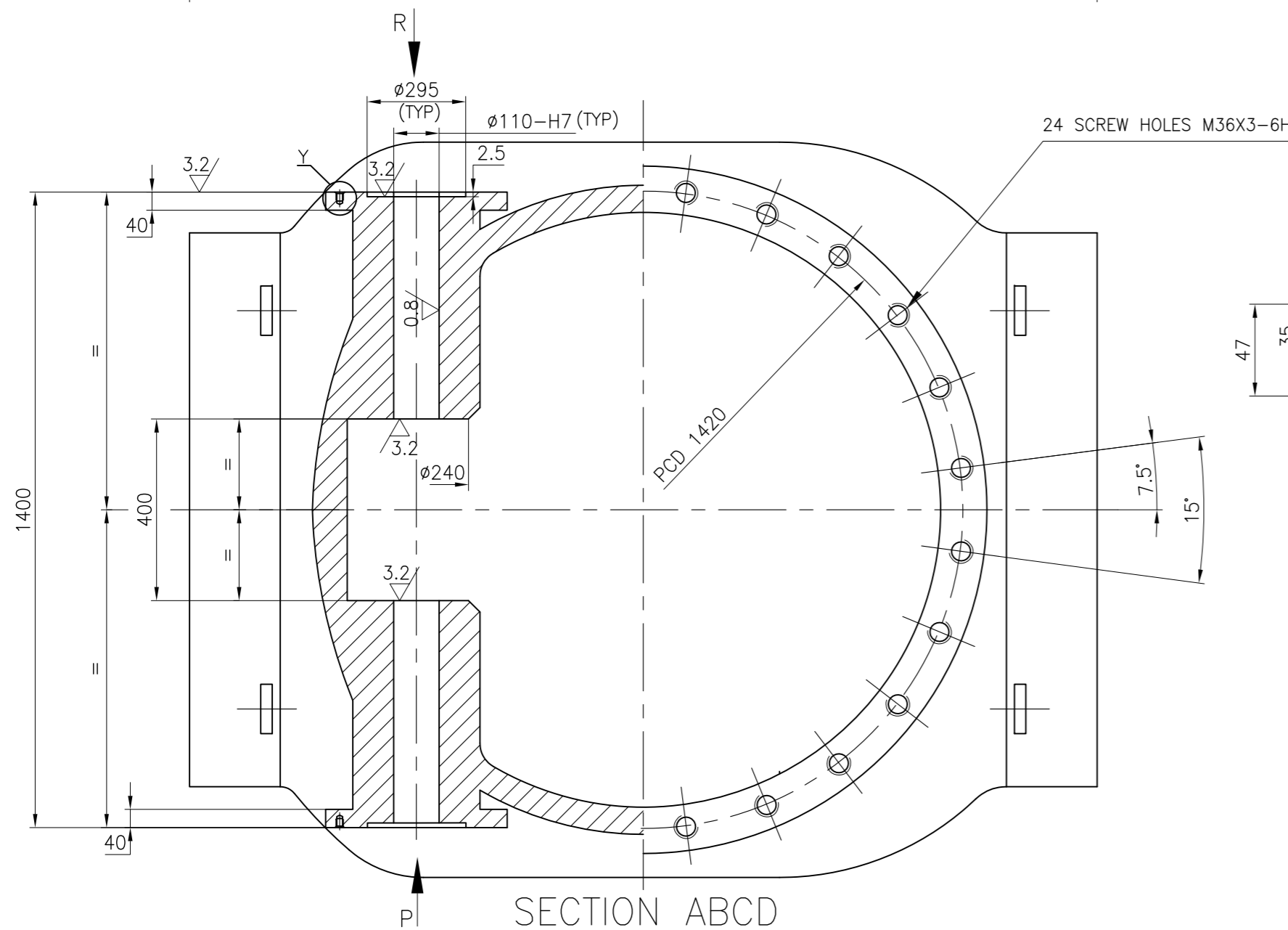
REV	DATE	ALTERED
		CHD & APPD
ZONE		

① 12.5, 3.2, 0.8

DIMENSIONS	TOLERANCE VALUE
∅110 H7	+0.035 0
∅1200 H7	+0.105 0



DETAIL G (BEFORE SEAT WELDING)



03	954600110000	2-V-LA54-17625	SA217 WC9 NT ATTEST	20
	921528610000	1-V-LA54-13049R		
02	954600100000	2-V-LA53-17625	SA217 WC6 NT ATTEST	20
	921528600000	1-V-LA53-13049R		
01	954600090000	2-V-LA52-17625	SA216 WCB AN ATTEST	10
	921528590000	1-V-LA52-13049R		
Sl.No.	MACHINING CODE	DRAWING NUMBER	MATERIAL SPECIFICATION	SCRAP SORT
	CASTING CODE	CASTING DRAWING NO.		

No OFF	DESCRIPTION	MATL CODE	MATL SPECN	HEAT TREATMENT	SCRAP SORT	NET WT (kg)	GROSS WT (kg)	DRAWING No	ITEM No
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TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT: QN

DEPT 365-120 V L CODE 320 TITLE BODY ASSY (44"/150C) MACHINING	DRN	NAME JALAL	SIGN JALAL	DATE 04.05.13	NO. OF VAR.
	CHD	JALAL	JALAL	04.05.13	
	APPD	MRK	MRK	04.05.13	
CARD CODE U 01	REFERENCE INFORMATION			NO. OF ITEMS	
DRAWING NO. 2-V-0000-17625				REV 00	

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REV	DATE	ALTERED
		CHD & APPD
ZONE		