



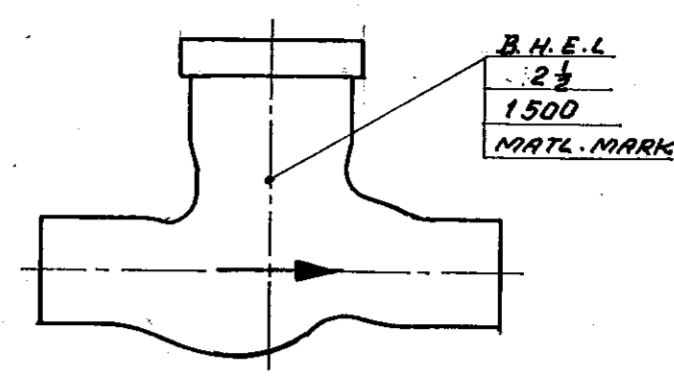
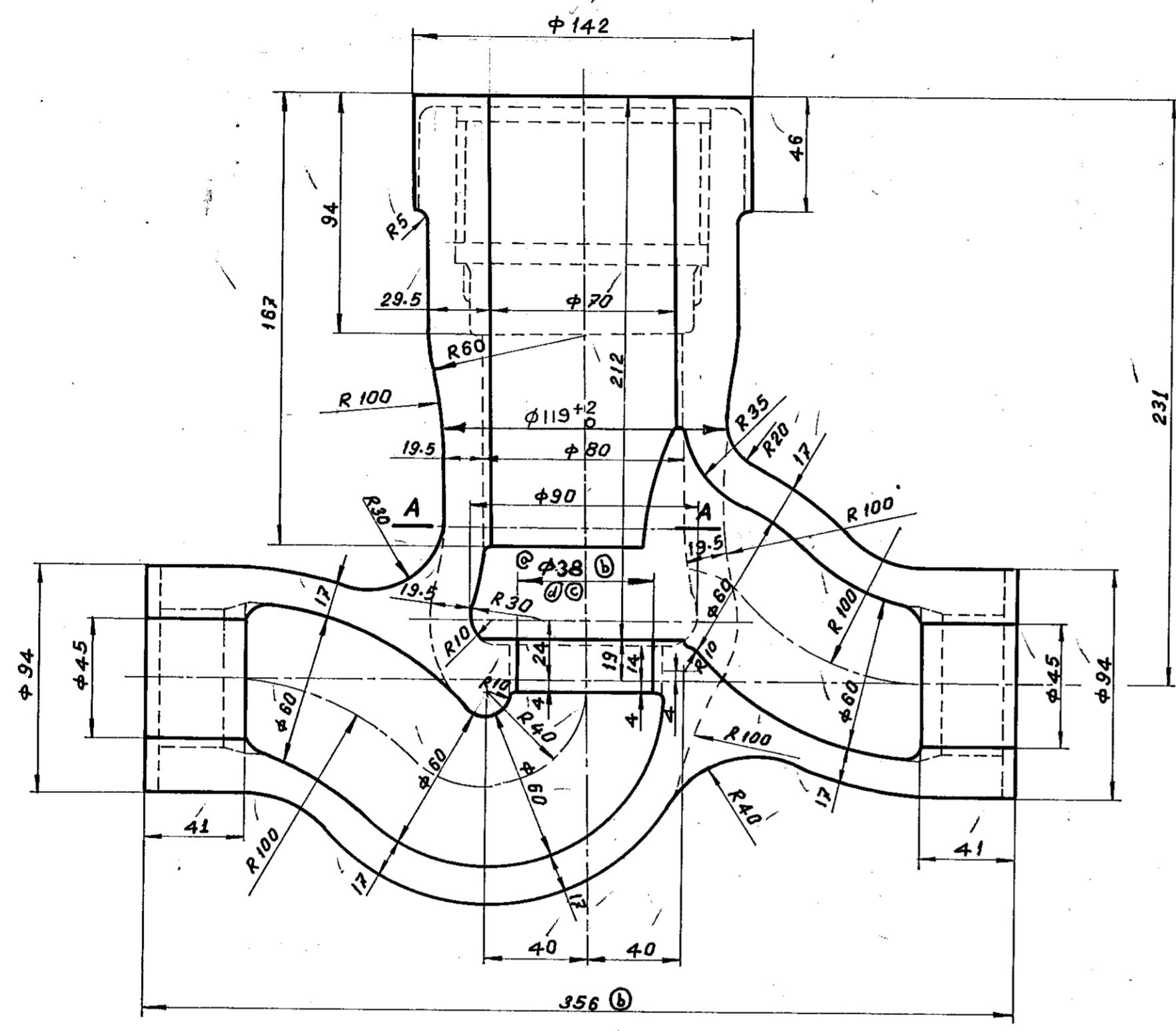


FIRST ANGLE PROJECTION (ALL DIMENSIONS IN MILLIMETRES)

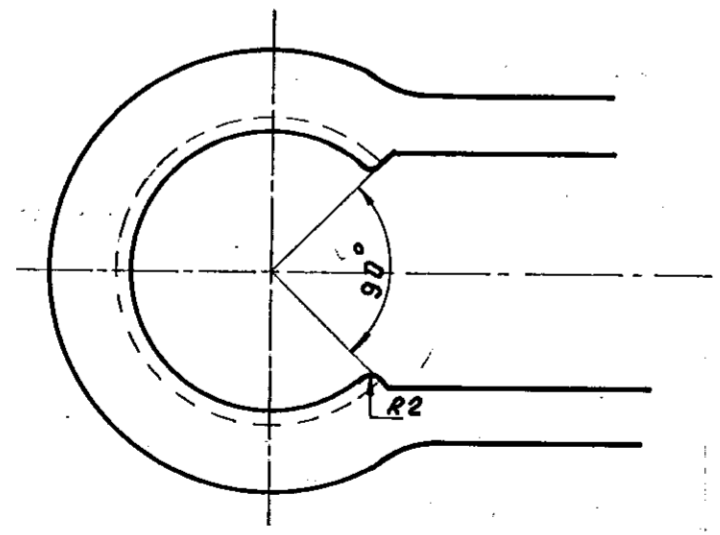
05-228/C

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DRAWING No. REF. TABLE  
2-V-0000-15104R/5



- NOTES:-**
1. DOTTED LINES SHOWS FINISH MACHINED CONFIGURATION.
  2. FOR ALL OTHER DETAILS LIKE DIMENSIONAL TOLERANCE, PUNCHING DETAILS AND EMBOSSING ETC REF LATEST APPLICABLE TDC.
  3. \* FOR THESE SPECIAL CLASS VALVE EMBOSSING SHALL BE 1500 SPL.
  4. \* ALL THE SPECIAL CLASS CASTINGS ARE TO BE SUBJECTED RT/UT ON ALL CRITICAL LOCATIONS.
  5. \* ALL EXTERIOR AND ACCESSIBLE INTERIOR SURFACE OF BODY SHALL BE MPI/LPI TESTED.



SECTION - A A

SL. No.	DRG. No.	MATL. SPECN.	MATL. CODE	MATL. MARK
* 8	2-V-0052-15104R/5	A 217 WCB, ATTEST, NT	92 150 287	WCB
* 7	2-V-0051-15104R/5	A 217 WCB, ATTEST, NT	92 150 288	WCB
* 6	2-V-0050-15104R/5	A 216 WCC, ATTEST, AN	92 150 289	WCC
* 5	2-V-0049-15104R/5	A 216 WCB, ATTEST, AN	92 150 290	WCB
4	2-V-0044-15104R/5	A 217 WCB, ATTEST, NT	92 150 291	WCB
3	2-V-0043-15104R/5	A 217 WCB, ATTEST, NT	92 150 292	WCB
2	2-V-0042-15104R/5	A 216 WCC, ATTEST, AN	92 150 293	WCC
1	2-V-0041-15104R/5	A 216 WCB, ATTEST, AN	92 150 294	WCB

REV	DATE	ALTD.	REV.	DATE	ALTD.	REV.	DATE	ALTD.	REV.	DATE	ALTD.	REV.	DATE	ALTD.	REV.	DATE	ALTD.
05	21.12.94	CHD	04	18.5.89	CHE	03	27.3.89	CHE	02	07-02-86	CHD	01	17-7-85	X. Rajan			

NOTES MODIFIED IN LINE WITH LATEST TDC

① DIM. φ 38 WAS φ 23. DCN No. 7A 0078

② DIM. φ 38 CHANGED TO φ 23 TO UNIFY WITH REG. NEEDLE BODY DRG. No. 3-E 31553 (2199).

③ OVERALL LENGTH 354 CHANGED TO 356 AND φ 50 CHANGED TO φ 38 TO UNIFY WITH REG. NEEDLE BODY DRG. No. 3-E 28263 (1351)

④ SEAT BORE φ 50 ADDED.

TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT

**Bharat Heavy Electricals Ltd.,**  
BOILER PLANT UNIT  
TIRUCHIRAPALLI-620 014

DRN: P. N. K. SIGN: M. R. K. DATE: 01/1/85 NO. OF VAR: 1

CHD: M. R. K. APPD: V. BABU

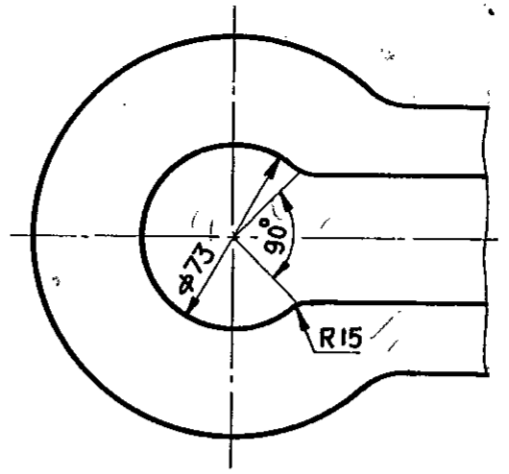
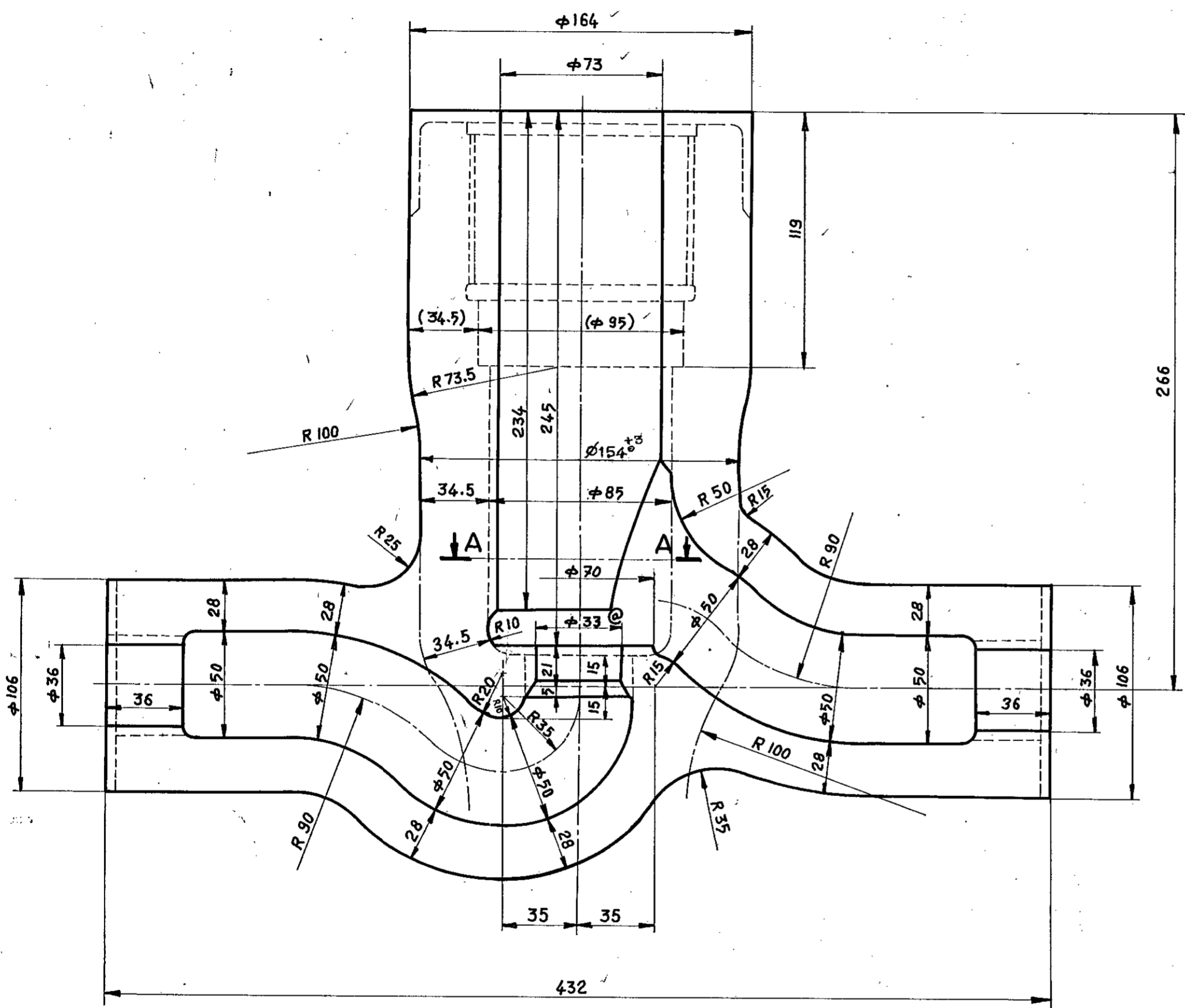
DEPT: VL GRADE OF UNTOOL. DIM: P/M/V SCALE: N.T.S WEIGHT (kg): 30.0 REF TO ASBY I/O LD DRG: 3-E 31553 (2199) 3-E 21160 (869) 3-E 28263 (1351) ITEM NO.:

TITLE: **BODY** CARD CODE: U 01 DRAWING NO. REF. TABLE: 2-V-0000-15104R/5

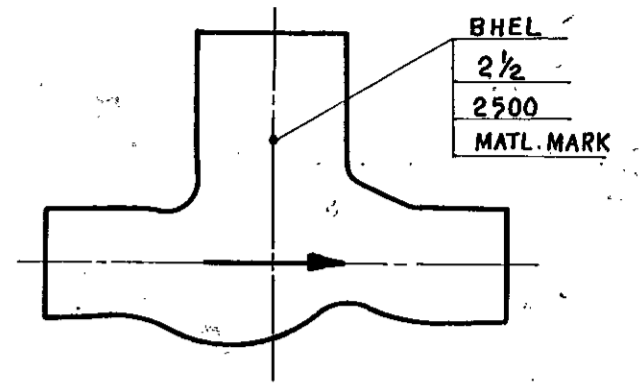
A 31268-6 & 34268-6 2 1/2 / 1500 CLASS

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1



SECTION-AA



NOTES:

1. DOTTED LINES SHOWS FINISH MACHINED CONFIGURATION.
2. FOR ALL OTHER DETAILS LIKE DIMENSIONAL TOLERANCE, EMBOSING ETC., REFER LATEST APPLICABLE TDC
3. \* FOR THESE SPECIAL CLASS VALVES EMBOSING SHALL BE '2500 SPL'
4. \* ALL THE SPECIAL CLASS CASTINGS ARE TO BE SUBJECTED RT/UT ON ALL CRITICAL LOCATIONS.
5. \* ALL EXTERIOR AND ACCESSIBLE INTERIOR SURFACES OF BODY SHALL BE MPI/LPI TESTED

MPI 759183

SL.No.	DRAWING No.	MATERIAL SPECN.	MATL. CODE	MATL. MARK
8.*	2-V- G040-15084 R/2	A 217 WC9, ATTEST, NT	92 150 203	WC9
7.*	2-V- G039-15084 R/2	A 217 WCB, ATTEST, NT	92 150 204	WC6
6.*	2-V- G038-15084 R/2	A 216 WCC, ATTEST, AN	92 150 205	WCC
5.*	2-V- G037-15084 R/2	A 216 WCB, ATTEST, AN	92 150 206	WCB
4.	2-V- G036-15084 R/2	A 217 WC9, ATTEST, NT	92 150 207	WC9
3.	2-V- G035-15084 R/2	A 217 WC6, ATTEST, NT	92 150 208	WC6
2.	2-V- G034-15084 R/2	A 216 WCC, ATTEST, AN	92 150 209	WCC
1.	2-V- G033-15084 R/2	A 216 WCB, ATTEST, AN	92 150 210	WCB

**BHARAT HEAVY ELECTRICALS LTD.,**  
BOILER PLANT UNIT, TIRUCHIRAPALLI-620 014

DEPT VL CODE 320 SCALE NTS WEIGHT (KG) 58.0 REF DRGS 3-E 26 931 (530) 3-E 28 266 (447) IT NO.

**BODY**  
A 312 8 B-6 & 3428 B-6 2 1/2" / 2500 CLASS

DIMENSIONS TO BE CONTROLLED WITHIN LIMITS AS SHOWN. MACHINING TOLERANCE ± 0.25 UNLESS OTHERWISE SHOWN NON-MACHINING TOLERANCE ±

CARD CODE U 01 4. DRAWING NO. REF. TABLE 2-V-0000-15084 R.2

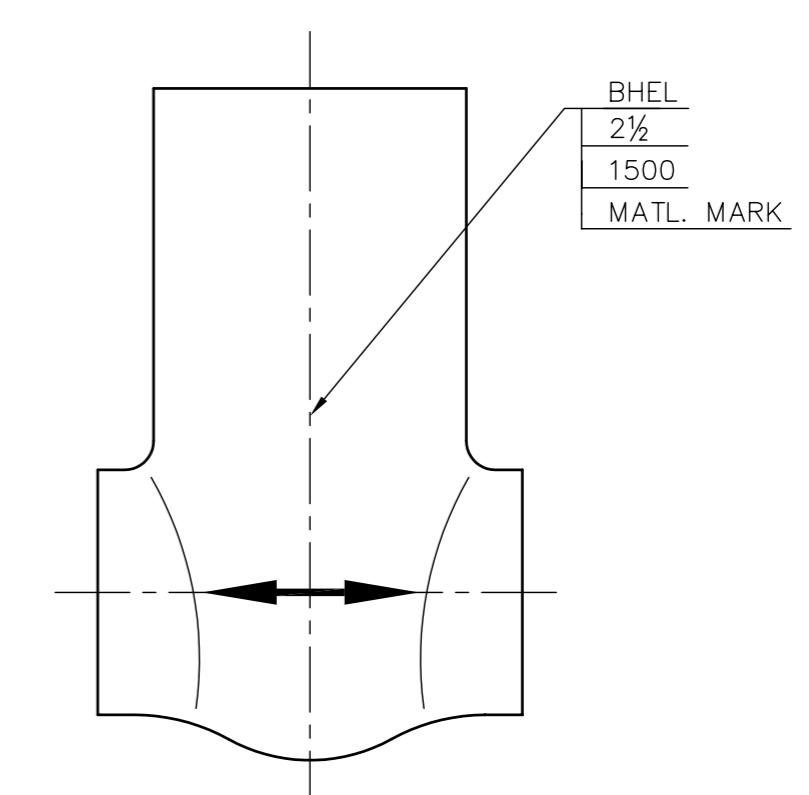
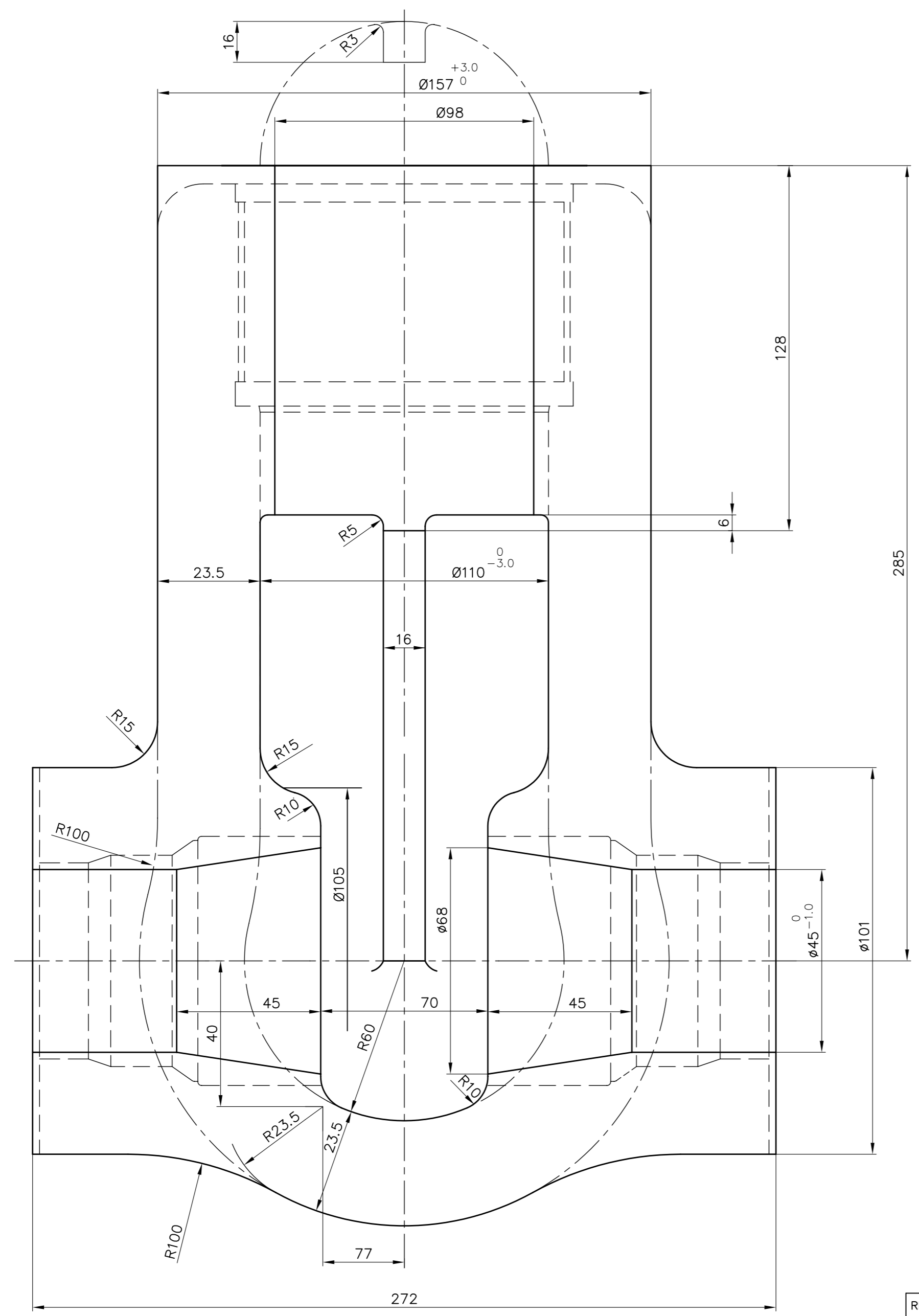
REV.	DATE	ALTD.	CHKD.	REV.	DATE	ALTERED MRK.	CHECKED
2	29.12.94		M.R.K.	01	07-02-86		V.B.

NOTES MODIFIED IN LINE WITH LATEST TDC

DCN NO: TA 0441

ZONE @ φ 38 CHANGED TO φ 33 TO UNIFY WITH REG. NEEDLE VALVE BODY DRG. No. 3-E 28266 (1447)

NAME	SIGN	DATE
K.N.C	<i>[Signature]</i>	1/12/89
M.R.K	<i>[Signature]</i>	3/1/88
V.BABU	<i>[Signature]</i>	9.1.88



- NOTES:**
1. DOTTED LINE SHOWS FINISH MACHINED CONFIGURATION.
  2. FOR ALL OTHER DETAILS LIKE DIMENSIONAL TOLERANCES, EMBOSING ETC. REFER LATEST APPLICABLE QUALITY WORK INSTRUCTION
  - \* 3. ALL THE SPECIAL CLASS CASTINGS ARE TO BE SUBJECTED RT/UT ON ALL CRITICAL LOCATIONS.
  4. ALL EXTERIOR AND ACCESSIBLE INTERIOR SURFACES OF BODY SHALL BE MPI/LPI TESTED.
  5. \* FOR THESE SPECIAL CLASS VALVE EMBOSING SHALL BE '1500 SPL'
  6. \* MARKED TYPES ARE SPECIAL CLASS RATINGS.

SL No.	DRAWING No.	MATERIAL SPECN.	MATERIAL CODE	MATL. MARK
* 08	2-V-WA32-16604R	A217 WC9,NT, ATTEST	92 153 017 0000	WC9
* 07	2-V-WA31-16604R	A217 WC6,NT, ATTEST	92 153 016 0000	WC6
* 06	2-V-WA30-16604R	A216 WCC,AN, ATTEST	92 153 015 0000	WCC
* 05	2-V-WA29-16604R	A216 WCB,AN, ATTEST	92 153 014 0000	WCB
04	2-V-WA28-16604R	A217 WC9,NT, ATTEST	92 153 013 0000	WC9
03	2-V-WA27-16604R	A217 WC6,NT, ATTEST	92 153 012 0000	WC6
02	2-V-WA26-16604R	A216 WCC,AN, ATTEST	92 153 011 0000	WCC
01	2-V-WA25-16604R	A216 WCB,AN, ATTEST	92 153 010 0000	WCB

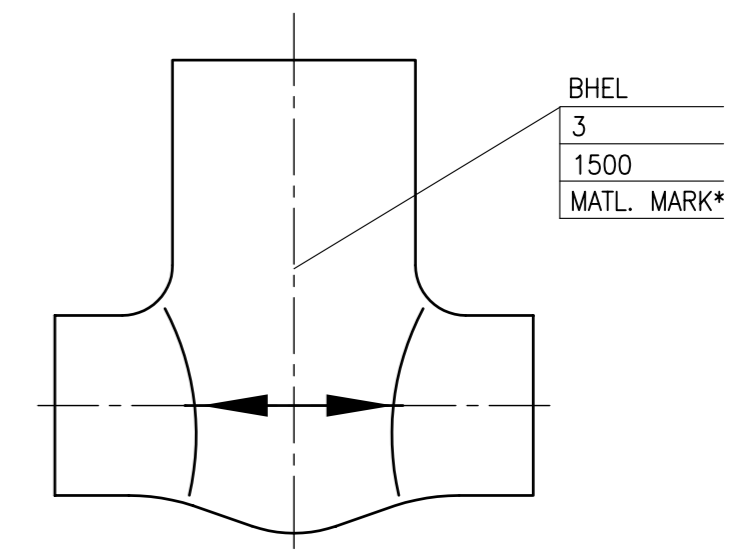
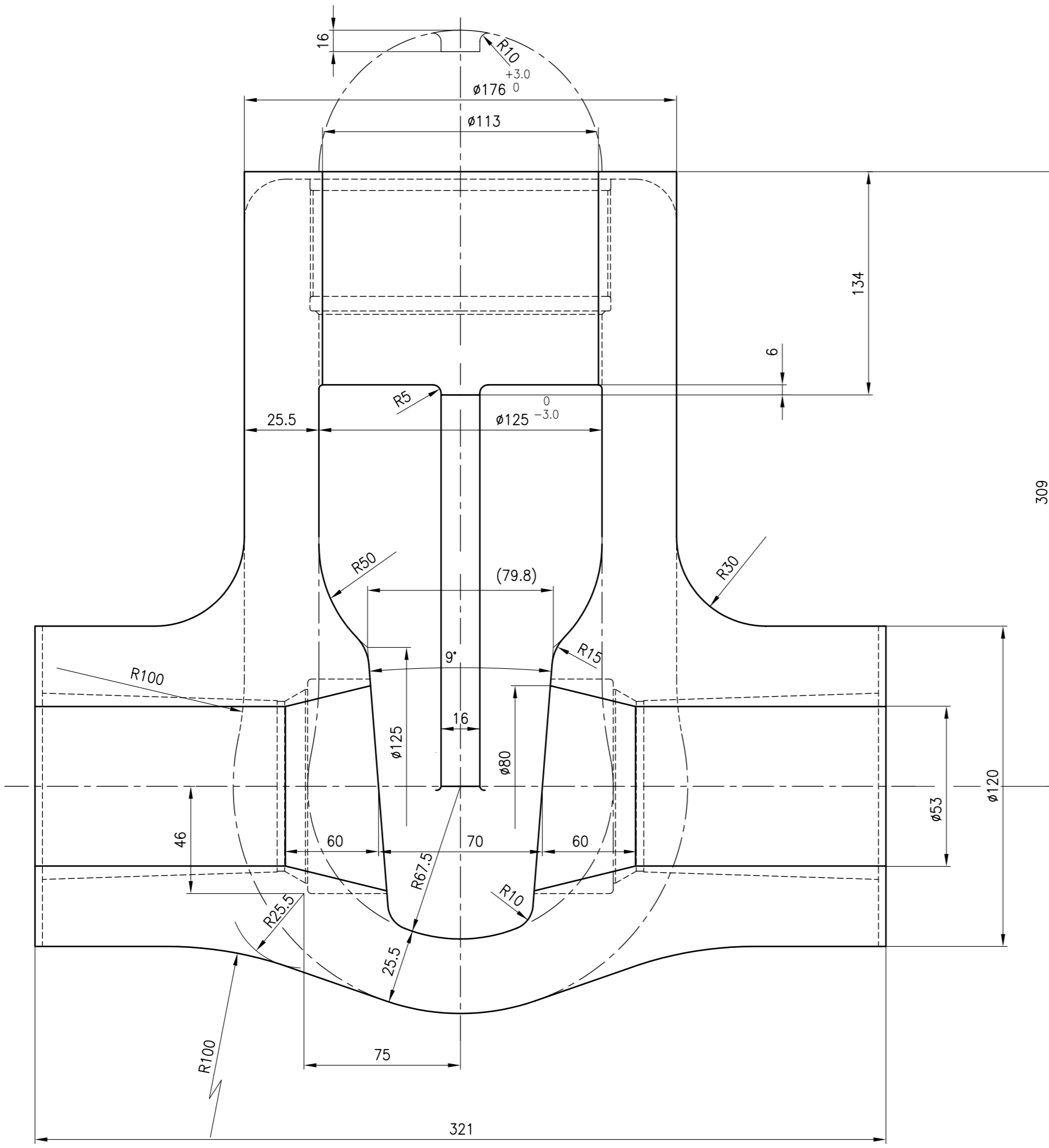
No OFF	DESCRIPTION	MATL CODE	MATL SPECN	HEAT TREATMENT	SCRAP SORT	NET WT (kg)	GROSS WT (kg)	REWORKING No	ITEM No

TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT		Bharat Heavy Electricals Ltd. UNIT: HIGH PRESSURE BOILER PLANT. TIRUCHIRAPALLI - 620014.		DRN V.BAIRAVAN	SIGN	DATE 10.02.06	NO.OF VAR.
DEPT 365-120	VL	SCALE NTS	WEIGHT (KG). 38.0	CHD K.RAJASEKAR		10.02.06	
CODE 320				APPD M.RAJKUMAR		10.02.06	
TITLE BODY 2 1/2" / 1500 CLASS			CARD CODE U 01	REFERENCE INFORMATION CAD. REF. NO.: T216604R		DRAWING NO. REFER TABLE 2-V-0000-16604R	

REV	DATE	ALTERED
		CHD & APPD

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1



NOTES:

1. DOTTED LINE SHOWS FINISH MACHINED CONFIGURATION.
2. FOR ALL OTHER DETAILS LIKE DIMENSIONAL TOLERANCES, EMBOSING ETC. REFER LATEST APPLICABLE QUALITY WORK INSTRUCTION
- \* 3. ALL THE SPECIAL CLASS CASTINGS ARE TO BE SUBJECTED RT/UT ON ALL CRITICAL LOCATIONS.
- \* 4. ALL EXTERIOR AND ACCESSIBLE INTERIOR SURFACES OF BODY SHALL BE MPI/LPI TESTED.
5. \* FOR THESE SPECIAL CLASS VALVE EMBOSING SHALL BE '1500 SPL'
6. BYPASS VALVE PADDING AND PRESSURE RELIEVING PAD SHALL BE PROVIDED ON BOTH SIDES OF THE BODY
7. \* MARKED TYPES ARE SPECIAL CLASS RATINGS.

* 08	2-V-WA24-16602R	A217 WC9,NT, ATTEST	92 153 009 0000	WC9	
* 07	2-V-WA23-16602R	A217 WC6,NT, ATTEST	92 153 008 0000	WC6	
* 06	2-V-WA22-16602R	A216 WCC,AN, ATTEST	92 153 007 0000	WCC	
* 05	2-V-WA21-16602R	A216 WCB,AN, ATTEST	92 153 006 0000	WCB	
04	2-V-WA20-16602R	A217 WC9,NT, ATTEST	92 153 005 0000	WC9	
03	2-V-WA19-16602R	A217 WC6,NT, ATTEST	92 153 004 0000	WC6	
02	2-V-WA18-16602R	A216 WCC,AN, ATTEST	92 153 003 0000	WCC	
01	2-V-WA17-16602R	A216 WCB,AN, ATTEST	92 153 002 0000	WCB	
SL No.	DRAWING No.	MATERIAL SPECN.	MATERIAL CODE	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: TA

	<b>BHARAT HEAVY ELECTRICALS LTD.,</b> UNIT: HIGH PRESSURE BOILER PLANT. TIRUCHIRAPALLI - 620014.		DRN	NAME	SIGN	DATE	NO. OF VAR.
	DEPT	365-120	CHD	V. BAIRAVAN		06.02.06	
	VL		APPD	K. RAJASEKARAN		06.02.06	
CODE	320	SCALE	N T S	WEIGHT (KG)	54	REFERENCE INFORMATION	
TITLE		BODY		CARD CODE	U 01	DRAWING NO.	NO. OF REV
		3"/1500 CLASS				2-V-0000-16602R	0

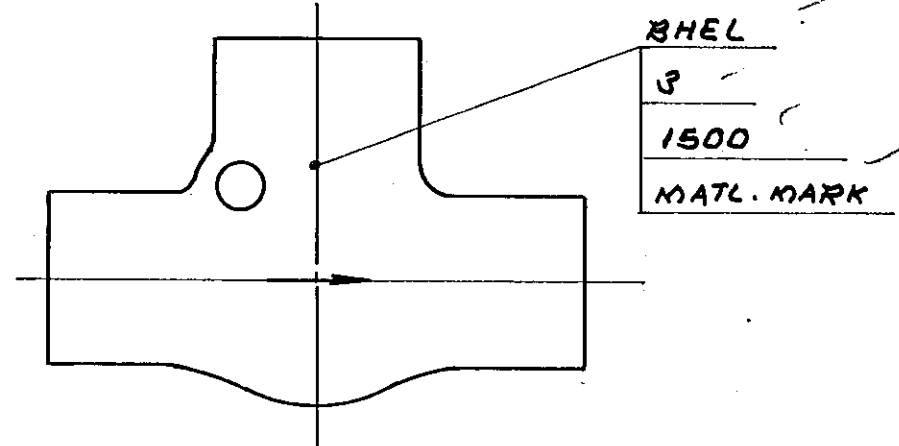
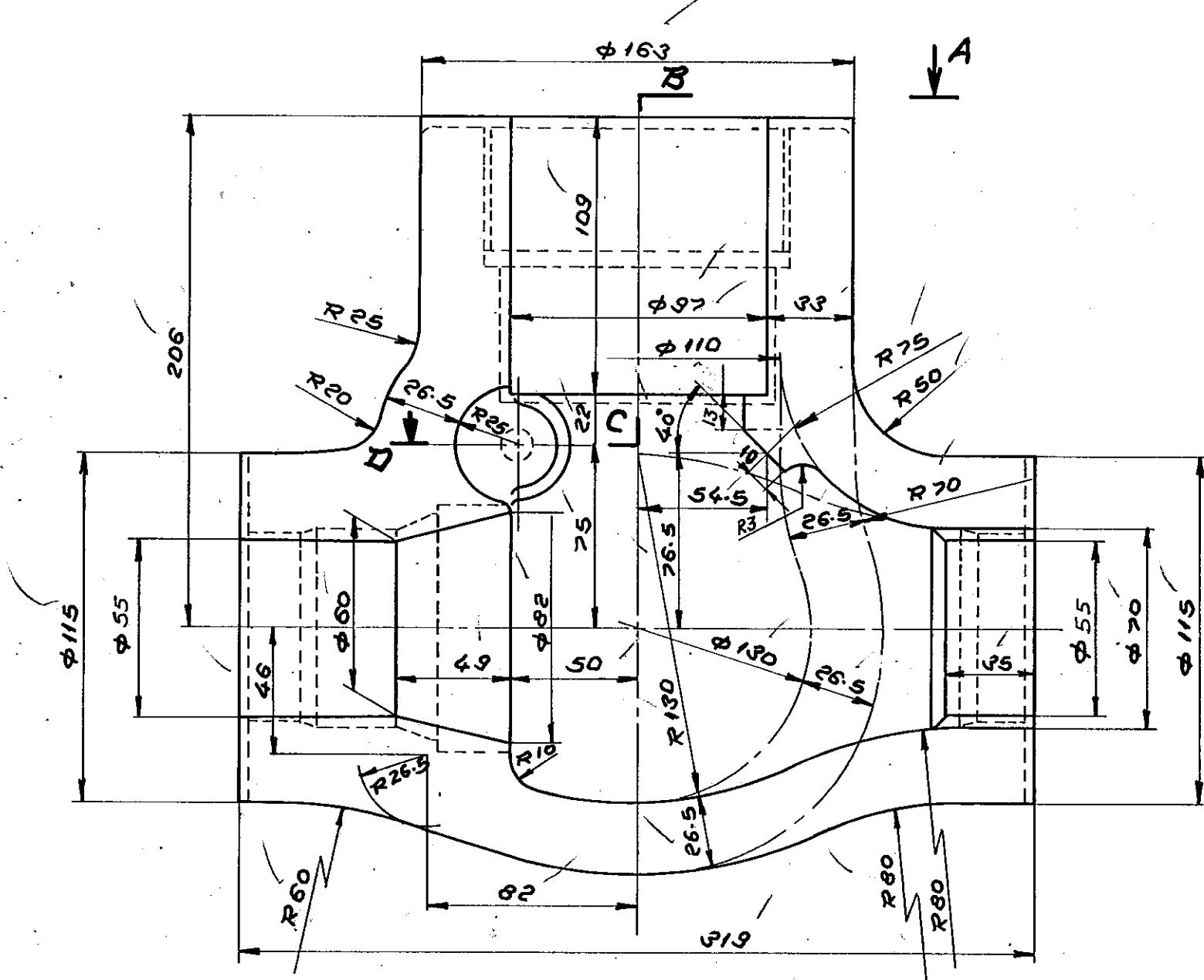
REV	DATE	ALTERED
		CHD & APPD

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FIRST ANGLE PROJECTION (ALL DIMENSIONS IN MILLIMETRES)

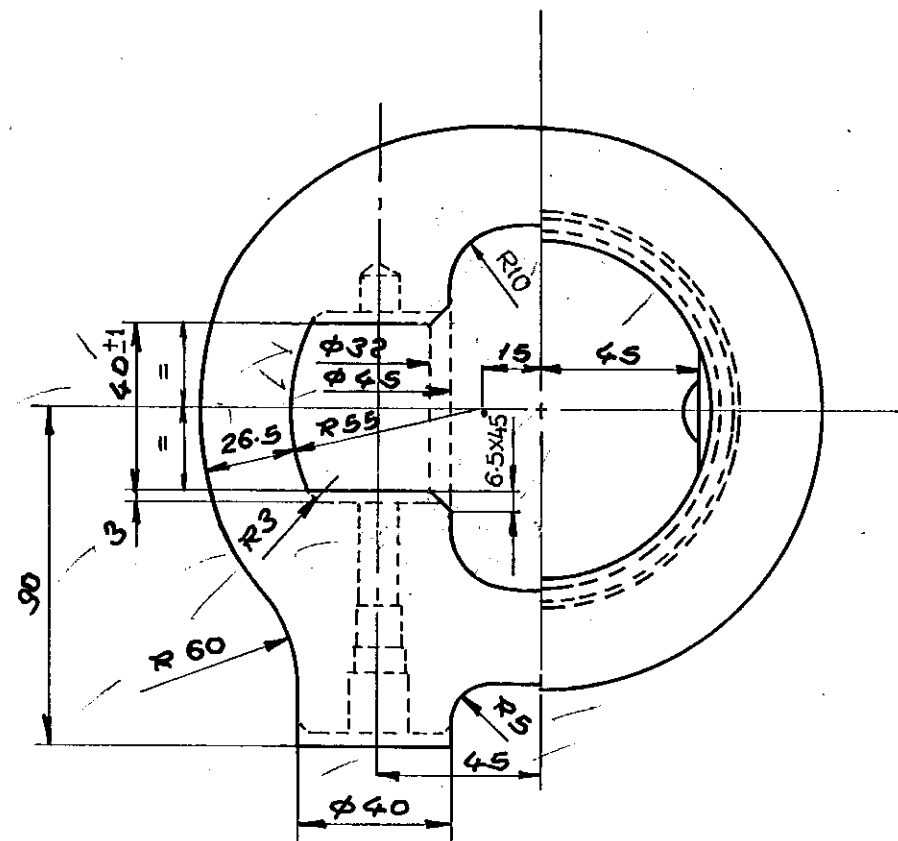
2.V.0000-15298R  
DRAWING No.

05-228/C  
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NOTES:

1. FOR ALL OTHER DETAILS LIKE DIMENSIONAL TOLERANCE, EMBOSING, PUNCHING DETAILS ETC., REFER LATEST APPLICABLE TDC.
2. \* FOR THESE SPECIAL CLASS VALVE EMBOSING SHALL BE 1500 SPL
3. DOTTED LINES SHOWS FINISH MACHINED CONFIGURATION.
4. \* ALL THE SPECIAL CLASS CASTINGS TO BE SUBJECTED RT/UT ON ALL CRITICAL LOCATIONS
5. \* ALL EXTERIOR AND ACCESSIBLE INTERIOR SURFACES OF BODY SHALL BE MPI/LPI TESTED



SECTION - ABCD

Sl. No	DRAWING No.	MATERIAL SPECN.	MATL. CODE	MATL. MARK
8*	2.V.L160-15298R	AP17-WC9, NT, ATTEST	92151061	WC9
7*	2.V.L159-15298R	AP17-WC6, NT, ATTEST	92151060	WC6
6*	2.V.L158-15298R	AP16-WCC, AN, ATTEST	92151059	WCC
5*	2.V.L157-15298R	AP16-WCB, AN, ATTEST	92151058	WCB
4	2.V.L156-15298R	AP17-WC9, NT, ATTEST	92151057	WC9
3	2.V.L155-15298R	AP17-WC6, NT, ATTEST	92151056	WC6
2	2.V.L154-15298R	AP16-WCC, AN, ATTEST	92151055	WCC
1	2.V.L153-15298R	AP16-WCB, AN, ATTEST	92151054	WCB

**Bharat Heavy Electricals Ltd.,**  
BOILER PLANT UNIT  
TIRUCHIRAPALLI-620 014

DRN: K.R. LEON  
CHD: M.R.K.  
APPD: V.S.

DATE: 17/3/87  
SIGN: [Signature]  
NO. OF VAR: 1

REV.	DATE	ALTD	REV	DATE	ALTERED
		CHKD.	01		CHECKED
2					

DEPT: YL  
CODE: 320  
GRADE OF UNITOL DIM: 41M/F  
SCALE: NTS  
WEIGHT (kg): 45.0  
REF. TO ASSY / OLD DRG: 3-E 31540 (1952)

TITLE: BODY  
A 4726-8-H

CARD CODE: U 01  
DRAWING NO. REF. TABLE: 2.V.0000-15298R

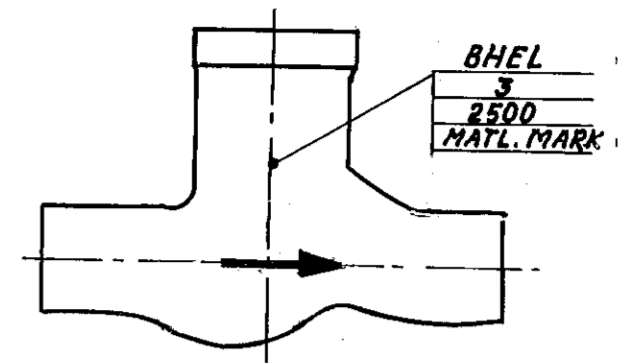
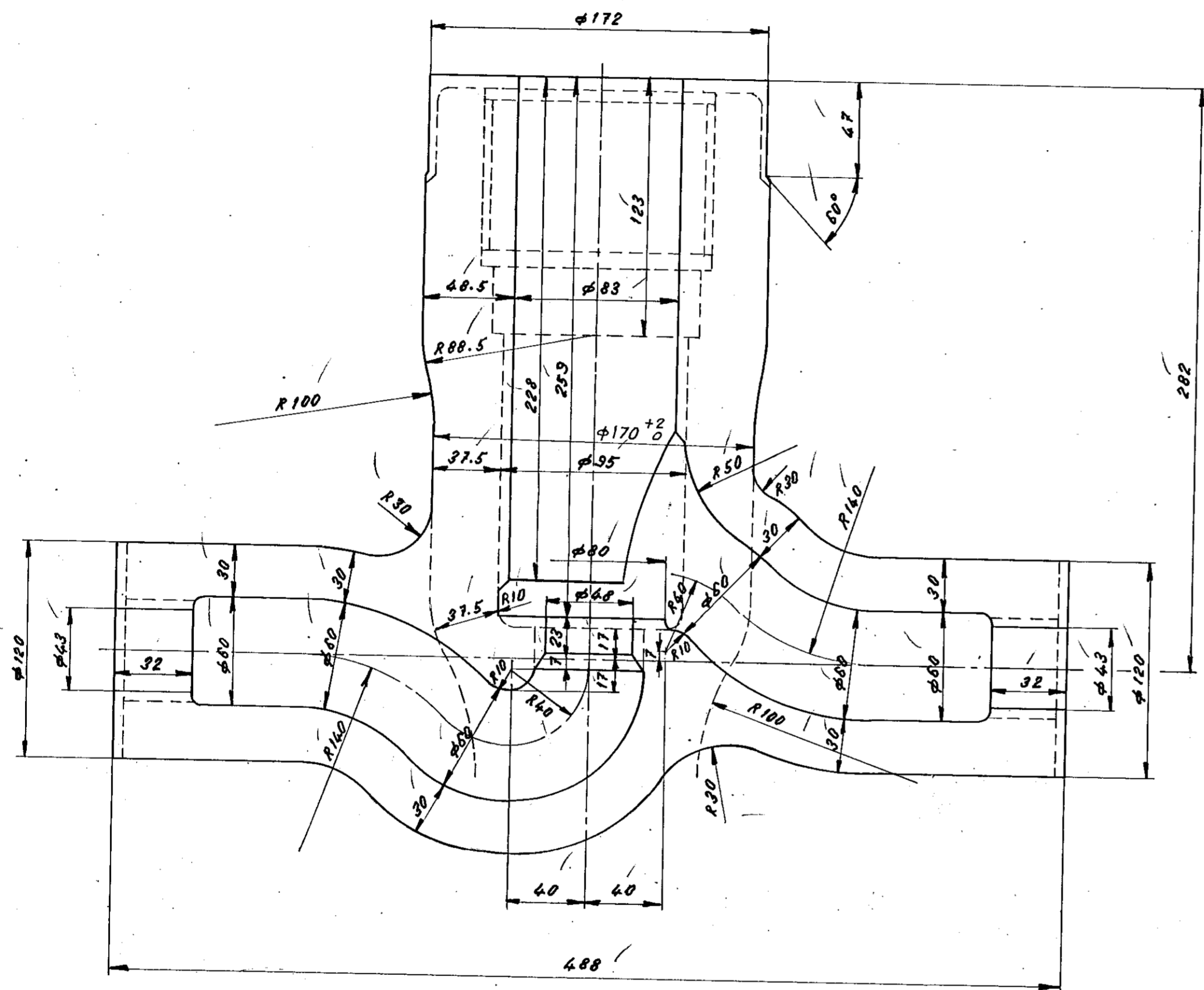


FIRST ANGLE PROJECTION (ALL DIMENSIONS IN MILLIMETRES)

05-228 / C

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2-V-0000-15305R/1  
REF. TABLE  
DRAWING NO.



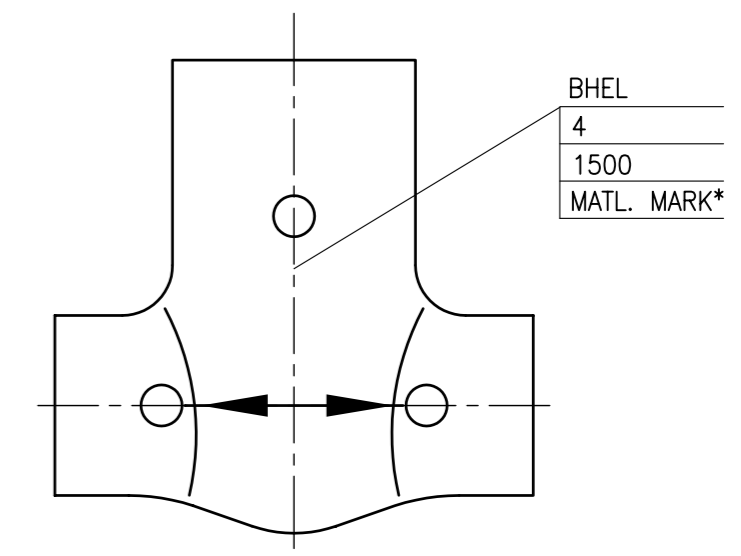
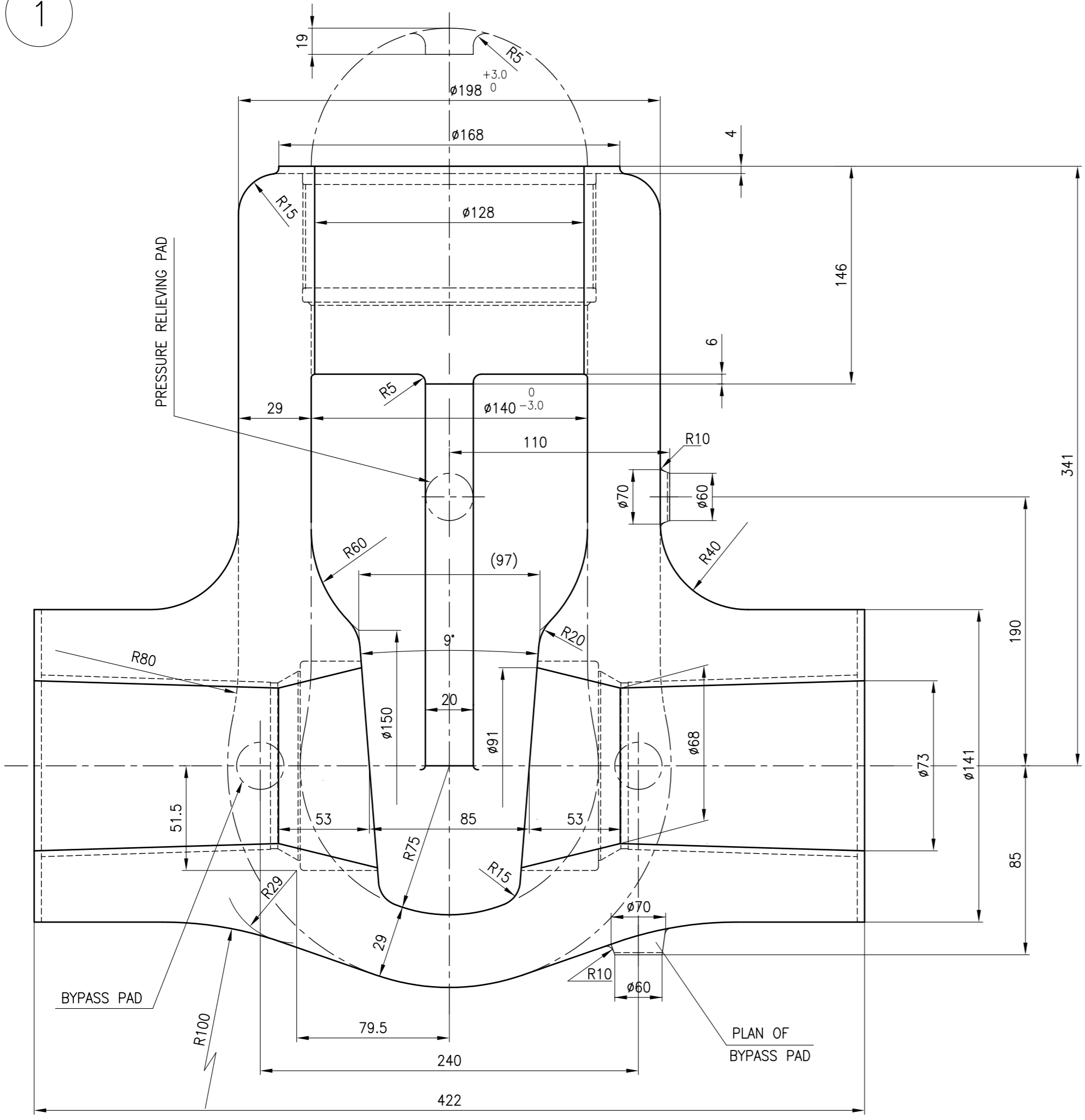
**NOTES:-**

1. DOTTED LINES SHOWS FINISH MACHINED CONFIGURATION.
2. FOR ALL OTHER DETAILS LIKE DIMENSIONAL TOLERANCE, EMBOSSING, ETC REFER LATEST APPLICABLE TDC
3. \* ALL THE SPECIAL CLASS CASTINGS ARE TO BE SUBJECTED RT/UT ON ALL CRITICAL LOCATIONS
4. \* ALL EXTERIOR AND ACCESSIBLE INTERIOR SURFACES OF BODY SHALL BE MPI/LPI TESTED
5. \* FOR THESE SPECIAL CLASS VALVE EMBOSSING SHALL BE '2500 SPL'

8*	2-V-G152-15305R/1	A217-WC9, NT, ATTEST.	32 151 093	WC9
7*	2-V-G151-15305R/1	A217-WCC, NT, ATTEST.	32 151 092	WCC
6*	2-V-G150-15305R/1	A216-WCC, AN, ATTEST.	32 151 091	WCC
5*	2-V-G149-15305R/1	A216-WCB, AN, ATTEST.	32 151 090	WCB
4	2-V-G148-15305R/1	A217-WC9, NT, ATTEST.	32 151 089	WC9
3	2-V-G147-15305R/1	A217-WCC, NT, ATTEST.	32 151 088	WCC
2	2-V-G146-15305R/1	A216-WCC, AN, ATTEST.	32 151 087	WCC
1	2-V-G145-15305R/1	A216-WCB, AN, ATTEST.	32 151 086	WCB
Sl. No.	DRAWING No.	MATL. SPECN.	MATL. CODE	MATL. MARK.

TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT		<b>MF</b>		1076402	
<b>Bharat Heavy Electricals Ltd.,</b> BOILER PLANT UNIT TIRUCHIRAPALLI-620 014		DRN	M. RAJA	DATE	21-3-97
		CHD	M. RAJKUMAR		
		APPD	V. BABU		
REV 01	DATE 29.12.96	ALTERED	CHECKED M.R.K. MM	DEPT VL	GRADE OF UNTO. DIM 4/M/1
NOTES MODIFIED IN LINE WITH LATEST TDC		SCALE	NTS	WEIGHT (KG)	70.0
DCN NO: TA 0441		TITLE	BODY		REF TO ASSY (OLD DRG)
		CARD CODE	U 01	DRAWING NO.	3-E32670 (21B1)
		3"/2500 CLASS		A 3128-8	REF. TABLE
				2-V-0000-15305R/1	

1



NOTES:

1. DOTTED LINE SHOWS FINISH MACHINED CONFIGURATION.
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3. \* ALL THE SPECIAL CLASS CASTINGS ARE TO BE SUBJECTED RT/UT ON ALL CRITICAL LOCATIONS.
4. \* ALL EXTERIOR AND ACCESSIBLE INTERIOR SURFACES OF BODY SHALL BE MPI/LPI TESTED.
5. \* FOR THESE SPECIAL CLASS VALVE EMBOSING SHALL BE '1500 SPL'
6. BYPASS VALVE PADDING AND PRESSURE RELIEVING PAD SHALL BE PROVIDED ON BOTH SIDES OF THE BODY
7. \* MARKED TYPES ARE SPECIAL CLASS RATINGS.

SL No.	DRAWING No.	MATERIAL SPECN.	MATERIAL CODE	MATL. MARK
* 08	2-V-WA16-16596R	A217 WC9,NT, ATTEST	92 152 598 0000	WC9
* 07	2-V-WA15-16596R	A217 WC6,NT, ATTEST	92 152 597 0000	WC6
* 06	2-V-WA14-16596R	A216 WCC,AN, ATTEST	92 152 596 0000	WCC
* 05	2-V-WA13-16596R	A216 WCB,AN, ATTEST	92 152 595 0000	WCB
04	2-V-WA12-16596R	A217 WC9,NT, ATTEST	92 152 594 0000	WC9
03	2-V-WA11-16596R	A217 WC6,NT, ATTEST	92 152 593 0000	WC6
02	2-V-WA10-16596R	A216 WCC,AN, ATTEST	92 152 592 0000	WCC
01	2-V-WA09-16596R	A216 WCB,AN, ATTEST	92 152 591 0000	WCB

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: TA

	<b>BHARAT HEAVY ELECTRICALS LTD.,</b> UNIT: HIGH PRESSURE BOILER PLANT. TIRUCHIRAPALLI - 620014.		DRN	NAME	SIGN	DATE	NO.OF VAR.
	DEPT	365-120	CHD	V.BAIRAVAN		04.02.06	
	VL		APPD	K.RAJASEKARAN		04.02.06	
CODE	320	SCALE	N T S	WEIGHT (KG).	78.2	REFERENCE INFORMATION	
TITLE		BODY		CARD CODE	U 01	DRAWING NO.	NO. OF ITEMS
		4"/1500 CLASS				2-V-0000-16596R	0

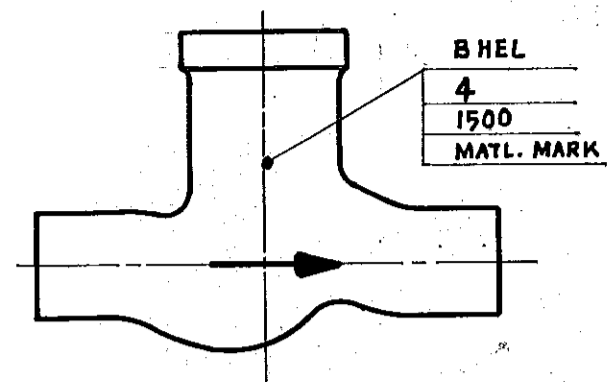
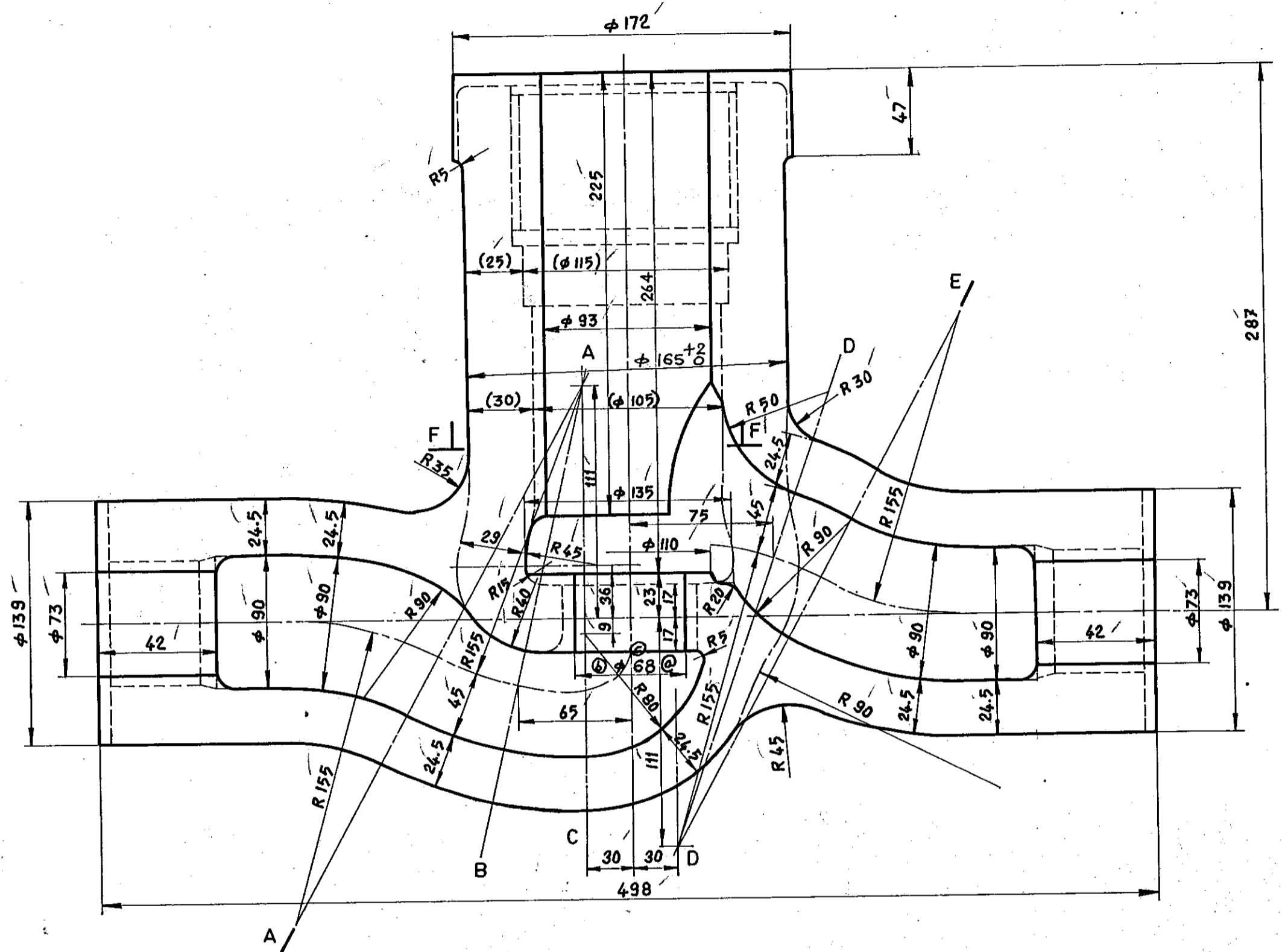
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REV	DATE	ALTERED
		CHD & APPD
ZONE		

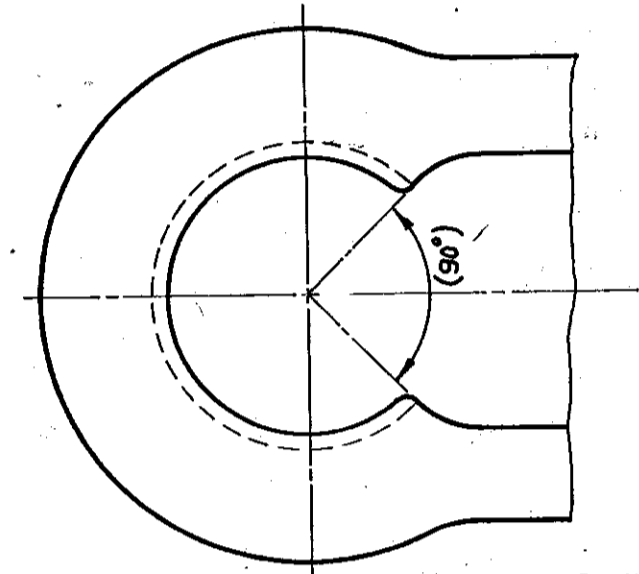
FIRST ANGLE PROJECTION (ALL DIMENSIONS IN MILLIMETRES)

2-V-0000-15005 R  
DRAWING NO. REF. TABLE

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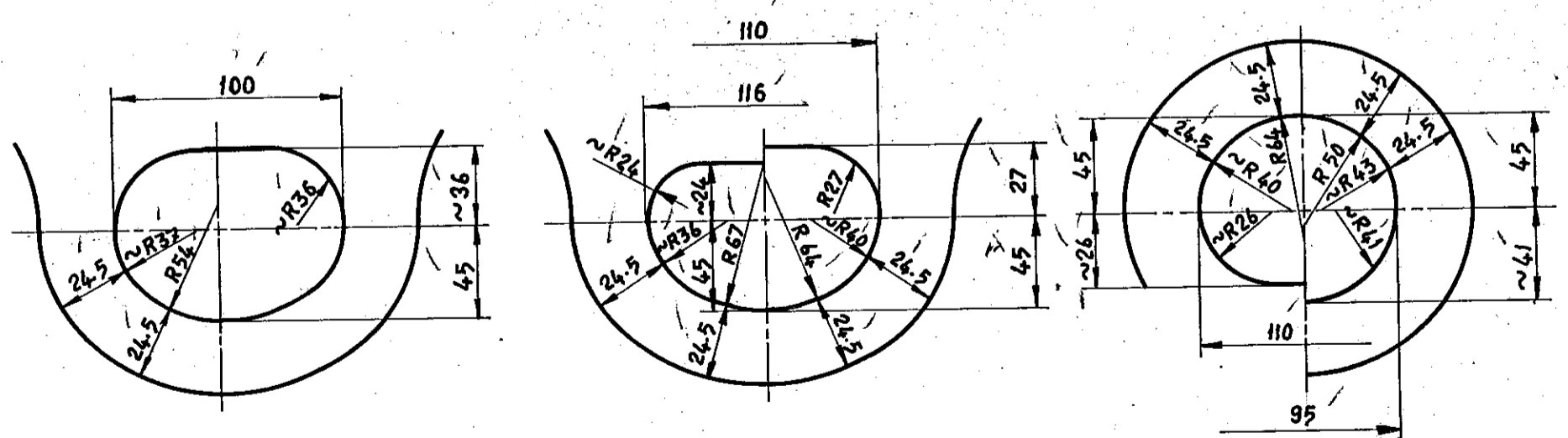


SECTION-FF



NOTE :-

- ALL THE SPECIAL CLASS CASTINGS ARE TO BE SUBJECTED RT/UT ON ALL CRITICAL LOCATIONS.
- ALL EXTERIOR AND ACCESSIBLE INTERIOR SURFACE OF BODY SHALL BE MPI/LPI TESTED.
- DOTTED LINES SHOWS FINISH MACHINED CONFIGURATION.
- FOR ALL OTHER DETAILS LIKE DIMENSIONAL TOLERANCE, EMBOSSING, PUNCHING DETAILS AND HYD. TEST PRESSURE ETC REFER LATEST APPLICABLE TDC.
- FOR THESE SPECIAL CLASS VALVES EMBOSSING SHALL BE 1500 SPI.



SECTION-AA SECTION-AB SECTION-AC SECTION-DD SECTION-DE

REV.	DATE	ALTD. CHKD.	REV.	DATE	ALTD. R.L.	REV.	DATE	ALTD. R.L.	REV.	DATE	ALTD. MRR
4	29.12.94	CHKD. N.R.K.	03	18.5.89	CHE. V.V.	02	27.3.89	CHE. V.V.	01	07-02-88	CHECKED VB
NOTES MODIFIED IN LINE WITH LATEST TDC: DCN: NO. TA0441			DIM. $\phi 68$ WAS $\phi 23$ . DCN No. TA 0078.			DIM. $\phi 68$ CHANGED TO $\phi 23$ TO UNIFY WITH REG. NEEDLE BODY DRG. No. 3-E 38805 (2202).			$\phi 78$ CHANGED TO $\phi 68$ TO UNIFY WITH REG. NEEDLE VALVE BODY DRG. No. 3-E 28264 (1412)		

SL.No.	DRAWING No.	MATERIAL SPECN.	MATL. CODE	MATL. MARK
8	2-V-G023-15005 R/4	A 217 WC9, ATTEST, NT	92 150 024	WC9
7	2-V-G022-15005 R/4	A 217 WC6, ATTEST, NT	92 150 023	WC6
6	2-V-G021-15005 R/4	A 216 WCC, ATTEST, AN	92 150 022	WCC
5	2-V-G017-15005 R/4	A 216 WCB, ATTEST, AN	92 150 021	WCB
4	2-V-G007-15005 R/4	A 217 WC9, ATTEST, NT	92 150 020	WC9
3	2-V-G006-15005 R/4	A 217 WC6, ATTEST, NT	92 150 019	WC6
2	2-V-G005-15005 R/4	A 216 WCC, ATTEST, AN	92 150 018	WCC
1	2-V-G001-15005 R/4	A 216 WCB, ATTEST, AN	92 150 017	WCB

**BHARAT HEAVY ELECTRICALS LTD.,**  
BOILER PLANT UNIT, TIRUCHIRAPPALLI-620 014

DEPT VL CODE 320 SCALE NTS WEIGHT (KG) 68.0

TITLE **BODY**  
3426 B-10 & A 312 6B-10 1/4"/1500 CLASS

DRAWING NO. REF. TABLE  
2-V-0000-15005 R 4

DIMENSIONS TO BE CONTROLLED WITHIN LIMITS AS SHOWN. MACHINING TOLERANCE  $\pm 0.25$  UNLESS OTHERWISE SHOWN NON-MACHINING TOLERANCE  $\pm$

CARD CODE U01

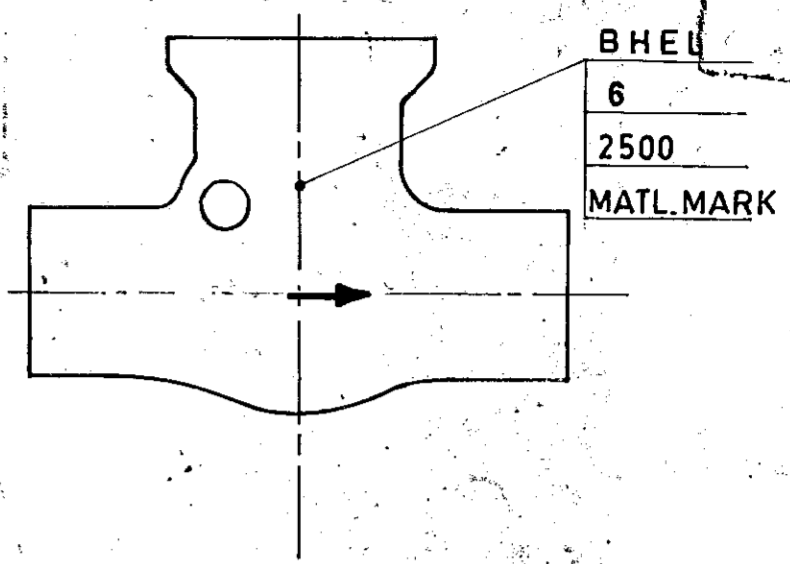
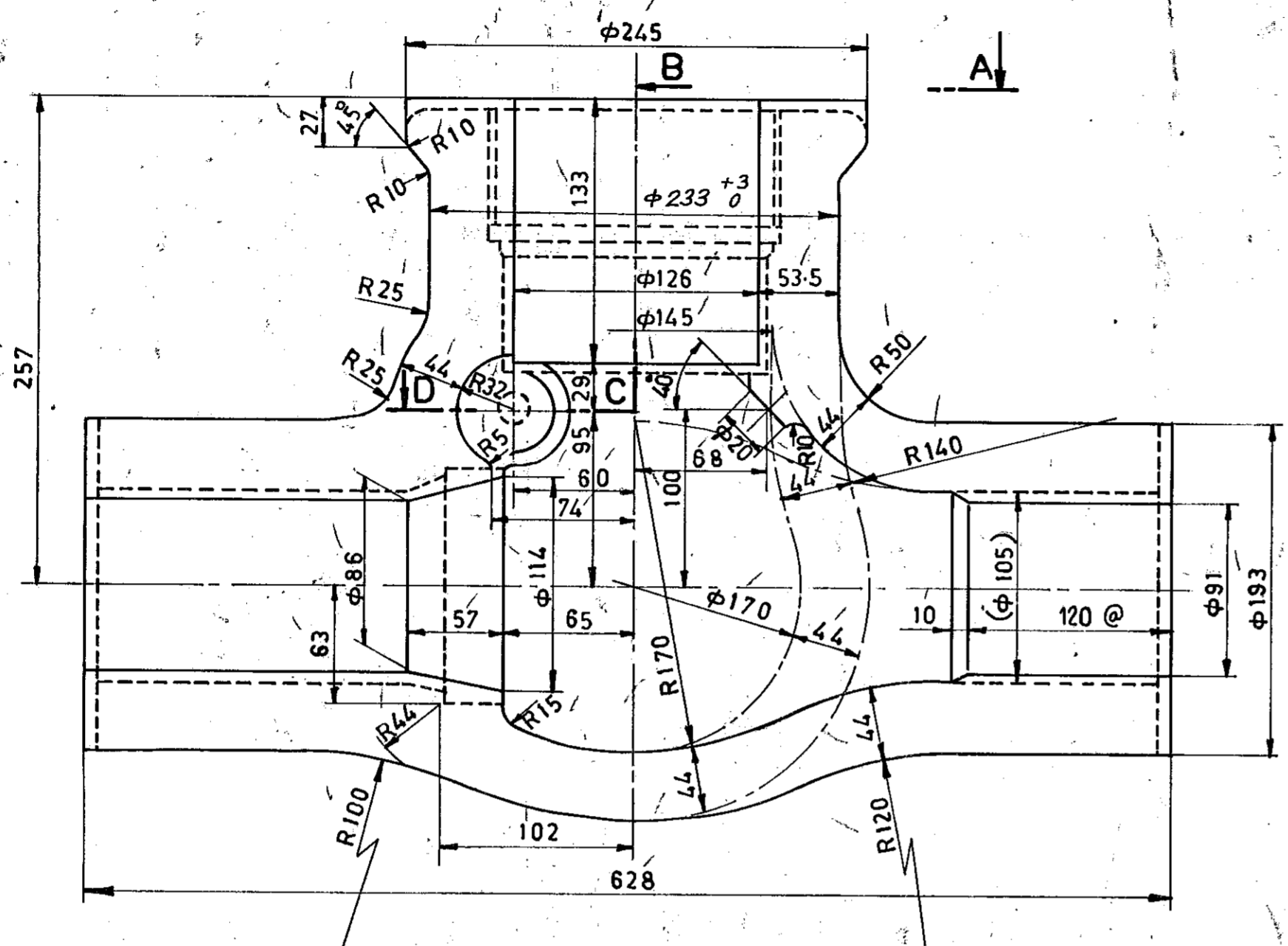




FIRST ANGLE PROJECTION (ALL DIMENSIONS IN MILLIMETRES)

2-V-0000-15000R  
DRAWING NO

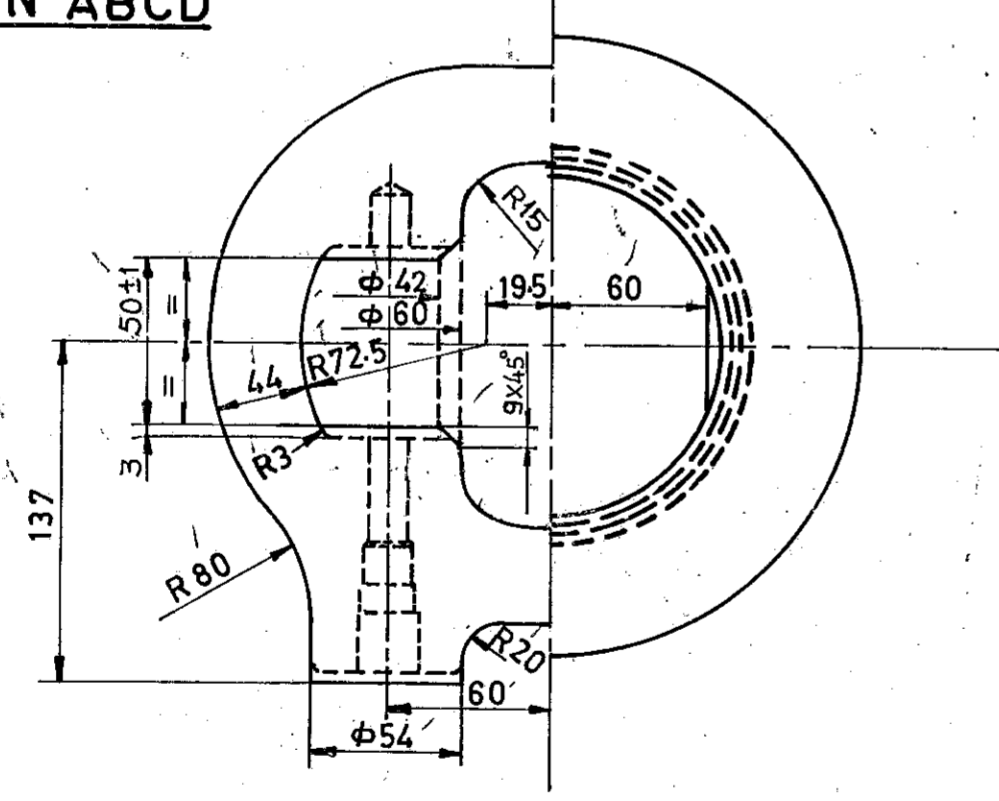
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**NOTES:**

- \* ALL THE SPECIAL CLASS CASTINGS ARE TO BE SUBJECTED RT/UT ON ALL CRITICAL LOCATIONS.
- \* ALL EXTERIOR AND ACCESSIBLE INTERIOR SURFACES OF BODY SHALL BE MPI/LPI TESTED.
- DOTTED LINES SHOWS FINISH MACHINED CONFIGURATION.
- FOR ALL OTHER DETAILS LIKE DIMENSIONAL TOLERANCE, PUNCHING DETAILS AND EMBOSSING ETC. REFER LATEST APPLICABLE TDC.
- \* FOR THESE SPECIAL CLASS VALVE EMBOSSING SHALL BE 2500SL

**SECTION ABCD**



MF 759221

SL.NO.	DRAWING NO.	MATERIAL SPECN.	MATERIAL CODE	MATERIAL MARK
8	2 V L018 15000R	A217 WC9, ATTEST, NT.	92 150 088	WC9
7	2 V L017 15000R	A217 WC6, ATTEST, NT.	92 150 087	WC6
6	2 V L016 15000R	A216 WCC, ATTEST, AN.	92 150 086	WCC
5	2 V L013 15000R	A216 WCB, ATTEST, AN.	92 150 085	WCB
4	2 V L006 15000R	A217 WC9, ATTEST, NT.	92 150 084	WC9
3	2 V L005 15000R	A217 WC6, ATTEST, NT.	92 150 083	WC6
2	2 V L004 15000R	A216 WCC, ATTEST, AN.	92 150 082	WCC
1	2-V-L001-15000R	A216 WCB, ATTEST, AN.	92 150 081	WCB

**BHARAT HEAVY ELECTRICALS LTD.,**  
BOILER PLANT UNIT, TIRUCHIRAPALLI-620 014

DEPT: V L CODE: 320 SCALE: NTS WEIGHT (KG): 170.0 REF. TO ASSY. DRG: 3-E26101 (0261) (Y NO. 0261)

TITLE: **BODY** A4728B-15

DRAWN: M.R. SEKAN NAME: M.R. SEKAN SIGN: M.R. SEKAN DATE: 7-7-86

CHECKED: M.R. SEKAN NAME: M.R. SEKAN SIGN: M.R. SEKAN DATE: 19/8/86

APPROVED: M.R. SEKAN NAME: M.R. SEKAN SIGN: M.R. SEKAN DATE: 19/8/86

DIMENSIONS TO BE CONTROLLED WITHIN LIMITS AS SHOWN. MACHINING TOLERANCE ± 0.25 UNLESS OTHERWISE SHOWN NON-MACHINING TOLERANCE ±

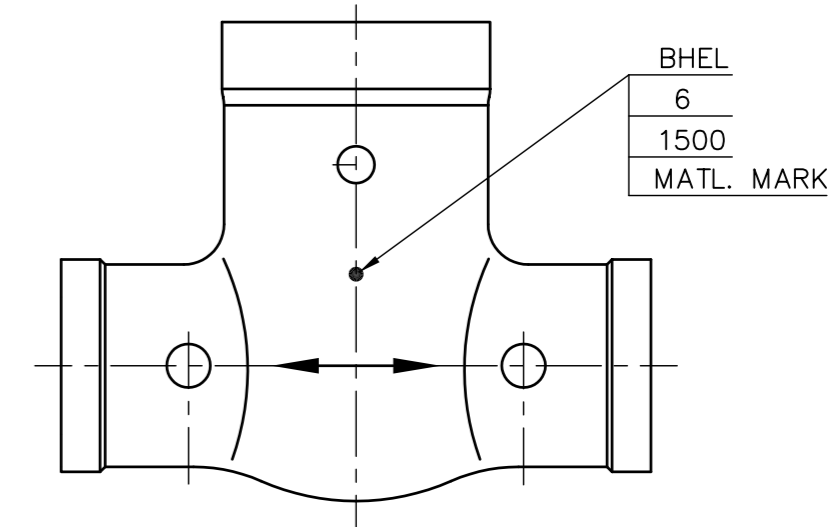
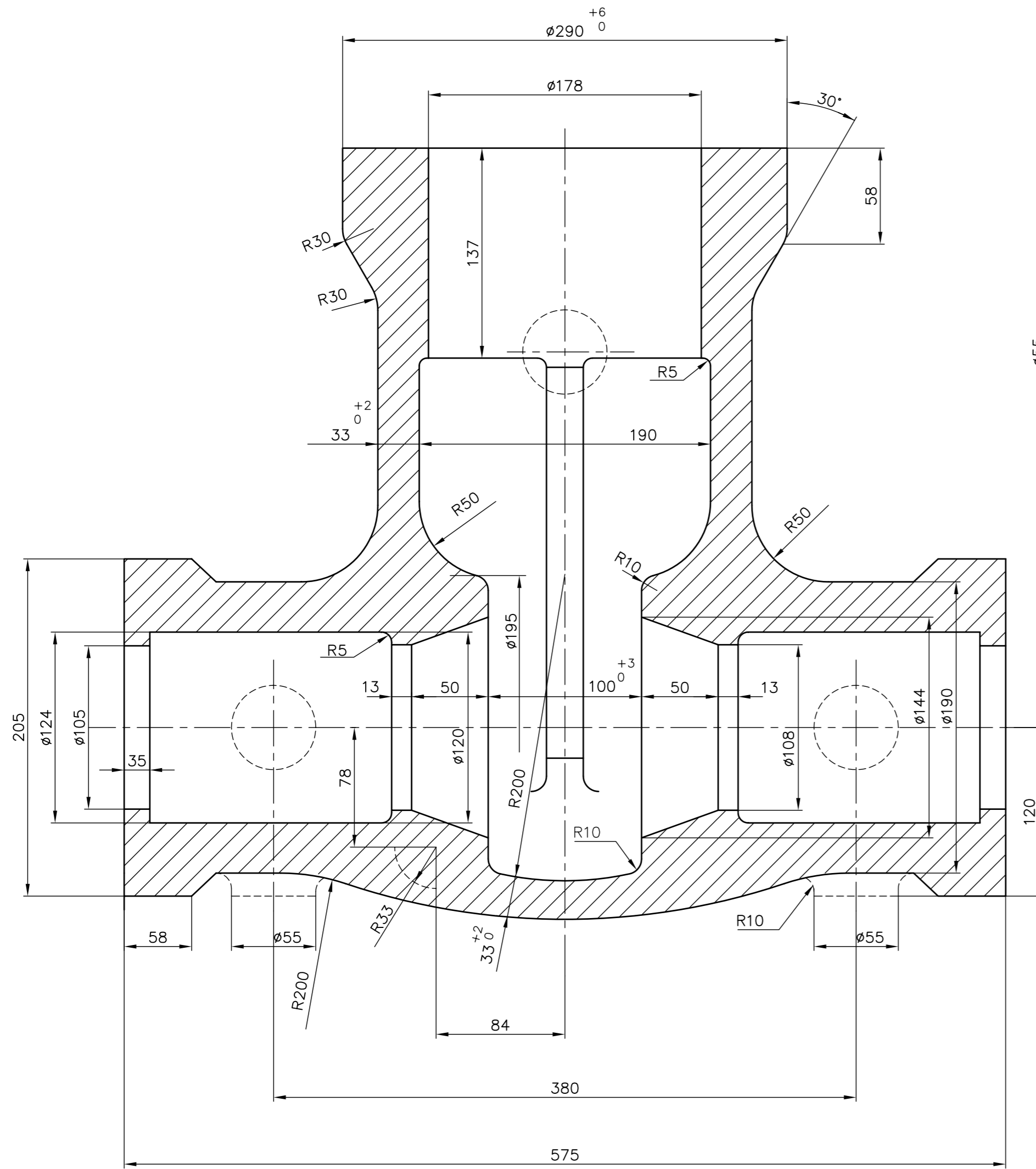
DRAWING NO. REF. TABLE: 2-V-0000-15000R 1

CARD CODE: UOI

REV.	DATE	ALTD:	REV.	DATE	ALTERED M.R.K.
2		CHKD:	01	20-3-85	CHECKED S. KUMAR

ZONE: @ DIMENSION 270 CORRECTED AS 120, FOR SL. No. 1.2 & 3 NOTES MODIFIED.

SIZE A2



**NOTES: -**

- FOR ALL OTHER DETAILS LIKE DIMENSIONAL TOLERANCE, EMBOSSING, ETC REFER LATEST APPLICABLE QUALITY WORK INSTRUCTIONS
- \*FOR THESE SPECIAL CLASS VALVE EMBOSSING SHALL BE '1500 SPL'
- \*ALL THE SPECIAL CLASS CASTING ARE TO BE SUBJECTED RT/UT ON ALL CRITICAL LOCATIONS.
- \*ALL EXTERIOR AND ACCESSIBLE INTERIOR SURFACES OF BODY SHALL BE MPI/LPI TESTED.
- BY PASS VALVE PADDING SHALL BE PROVIDED ON BOTH SIDES OF THE BODY
- PRESSURE RELIEVING PAD SHALL BE PROVIDED ON BOTH SIDES OF THE BODY

REDRAWN WITH REV.3 ON 03.05.07

SL No.	DRAWING No.	MATL. SPECN.	MATL. CODE	MATL. MARK
*8	2-V-V088-16119R/3	A217 WC9,ATTEST,NT	921523200000	WC9
*7	2-V-V087-16119R/3	A217 WC6,ATTEST,NT	921523190000	WC6
*6	2-V-V086-16119R/3	A216 WCC,ATTEST,AN	921523180000	WCC
*5	2-V-V085-16119R/3	A216 WCB,ATTEST,AN	921523170000	WCB
4	2-V-V084-16119R/2	A217 WC9,ATTEST,NT	921523160000	WC9
3	2-V-V083-16119R/2	A217 WC6,ATTEST,NT	921523150000	WC6
2	2-V-V082-16119R/2	A216 WCC,ATTEST,AN	921523140000	WCC
1	2-V-V081-16119R/2	A216 WCB,ATTEST,AN	921523130000	WCB

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.,**  
UNIT: HIGH PRESSURE BOILER PLANT.  
TIRUCHIRAPALLI -620014.

DRN	V.BAIRAVAN.	SIGN	DATE	NO.OF VAR.
CHD	K.RAJASEKARAN		03.05.07	-
APPD	M.RAJKUMAR.		03.05.07	-

DEPT 365-120

SCALE N T S

WEIGHT (KG) 172

REFERENCE INFORMATION TOA DRG No. : 3-34337 CAD REF No. : T216119R

TITLE **BODY** 6"/1500CLASS

CARD CODE U 01

DRAWING NO. REF.TABLE 2-V-0000-16119R

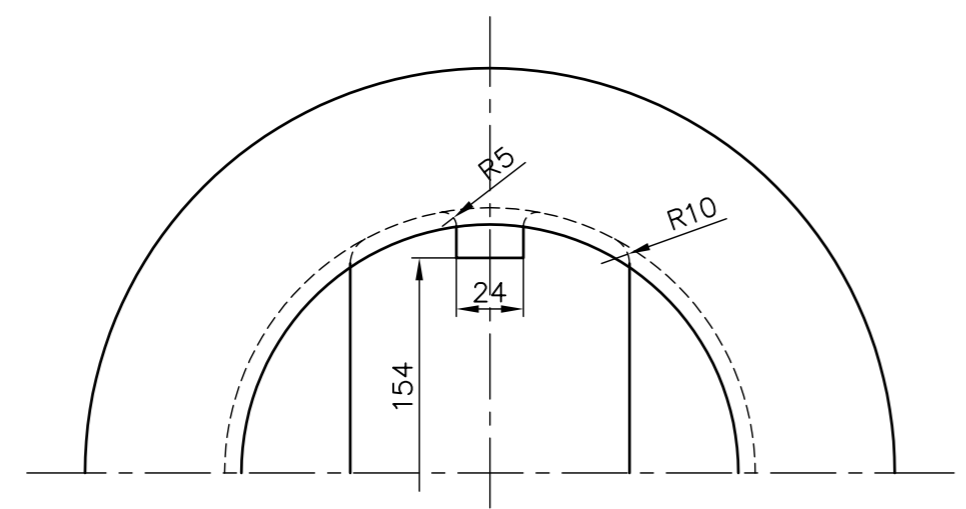
REV 3

REV	DATE	ALTERED/VB
3	03.05.07	CHD & APPDKRS & MRK

ZONE

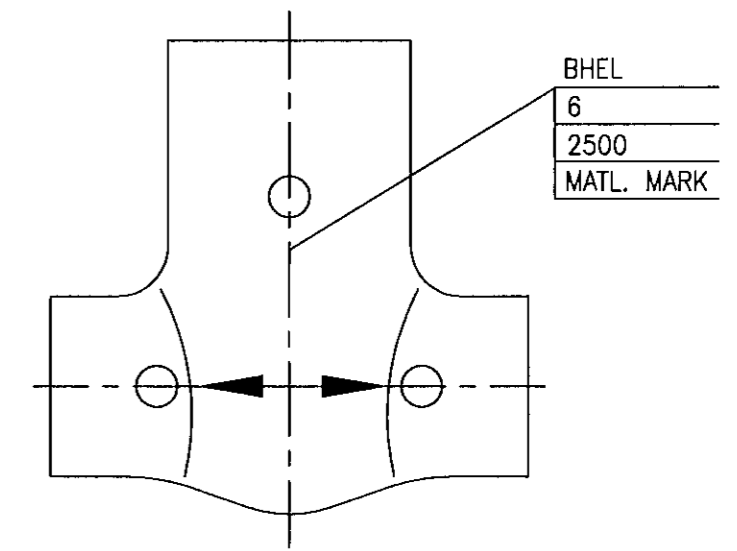
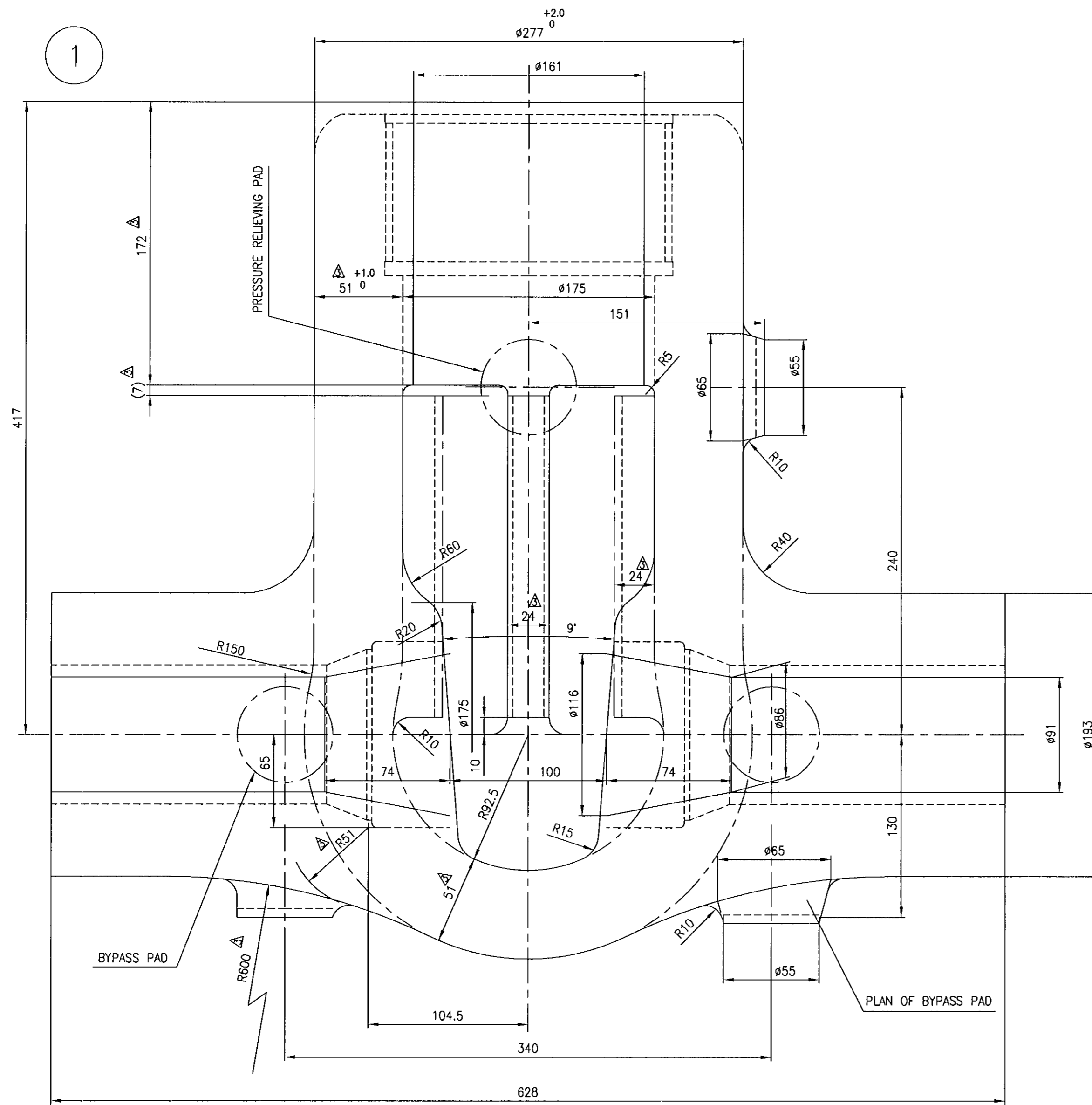
\* MARK INCLUDED IN SL. NoS. 5 TO 8 FOR SPL. CLASS VALVES  
DCP.NO.800673

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DRAWING NO. 2-V-0000-15081R/3

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



NOTES:

1. DOTTED LINE SHOWS FINISH MACHINED CONFIGURATION.
2. FOR ALL OTHER DETAILS LIKE DIMENSIONAL TOLERANCES, EMBOSING ETC. REFER LATEST APPLICABLE QUALITY WORK INSTRUCTION
- \* 3. ALL THE SPECIAL CLASS CASTINGS ARE TO BE SUBJECTED RT/UT ON ALL CRITICAL LOCATIONS.
- \* 4. ALL EXTERIOR AND ACCESSIBLE INTERIOR SURFACES OF BODY SHALL BE MPI/LPI TESTED.
5. \* FOR THESE SPECIAL CLASS VALVE EMBOSING SHALL BE '2500 SPL'
6. BYPASS VALVE PADDING AND PRESSURE RELIEVING PAD SHALL BE PROVIDED ON BOTH SIDES OF THE BODY

* 08	2-V-W100-15081R/3	A217 WC9,NT, ATTEST	92 150 179 0000	WC9	
* 07	2-V-W099-15081R/3	A217 WC6,NT, ATTEST	92 150 180 0000	WC6	
* 06	2-V-W098-15081R/3	A216 WCC,AN, ATTEST	92 150 181 0000	WCC	
* 05	2-V-W097-15081R/3	A216 WCB,AN, ATTEST	92 150 182 0000	WCB	
04	2-V-W068-15081R/3	A217 WC9,NT, ATTEST	92 150 183 0000	WC9	
03	2-V-W067-15081R/3	A217 WC6,NT, ATTEST	92 150 184 0000	WC6	
02	2-V-W066-15081R/3	A216 WCC,AN, ATTEST	92 150 185 0000	WCC	
01	2-V-W065-15081R/3	A216 WCB,AN, ATTEST	92 150 186 0000	WCB	
SL No.	DRAWING No.	MATERIAL SPECN.	MATERIAL CODE	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: TA  
 REDRAWN WITH REV.3 ON 05.04.04

<b>BHARAT HEAVY ELECTRICALS LTD.</b> UNIT: HIGH PRESSURE BOILER PLANT. TIRUCHIRAPALLI -620014.		DRN	V.BAIRAVAN	SIGN		DATE	05.04.04	NO.OF VAR.
DEPT	VL	CHD	K.RAJASEKARAN	APPD	M.RAJAKUMAR		05.04.04	
CODE	320	SCALE	N T S	WEIGHT (KG).	225	REFERENCE INFORMATION		
TITLE		BODY		CARD CODE	U 01	DRAWING NO. 2-V-0000-15081R/3		
		6"/2500 CLASS				REFER TABLE		

REV	3	DATE	05.04.04	ALTERED VB	CHD & APPD MRK
ZONE		DIMENSIONS 3, 262 & 36 DELETED. DIMENSIONS FOR GUIDE BAR 24 INCLUDED. DIMENSION 172, (7) & R5 INCLUDED. DIMENSIONS 51, R600 & R51 WERE 49, R150 & R49. DCP No.800302			

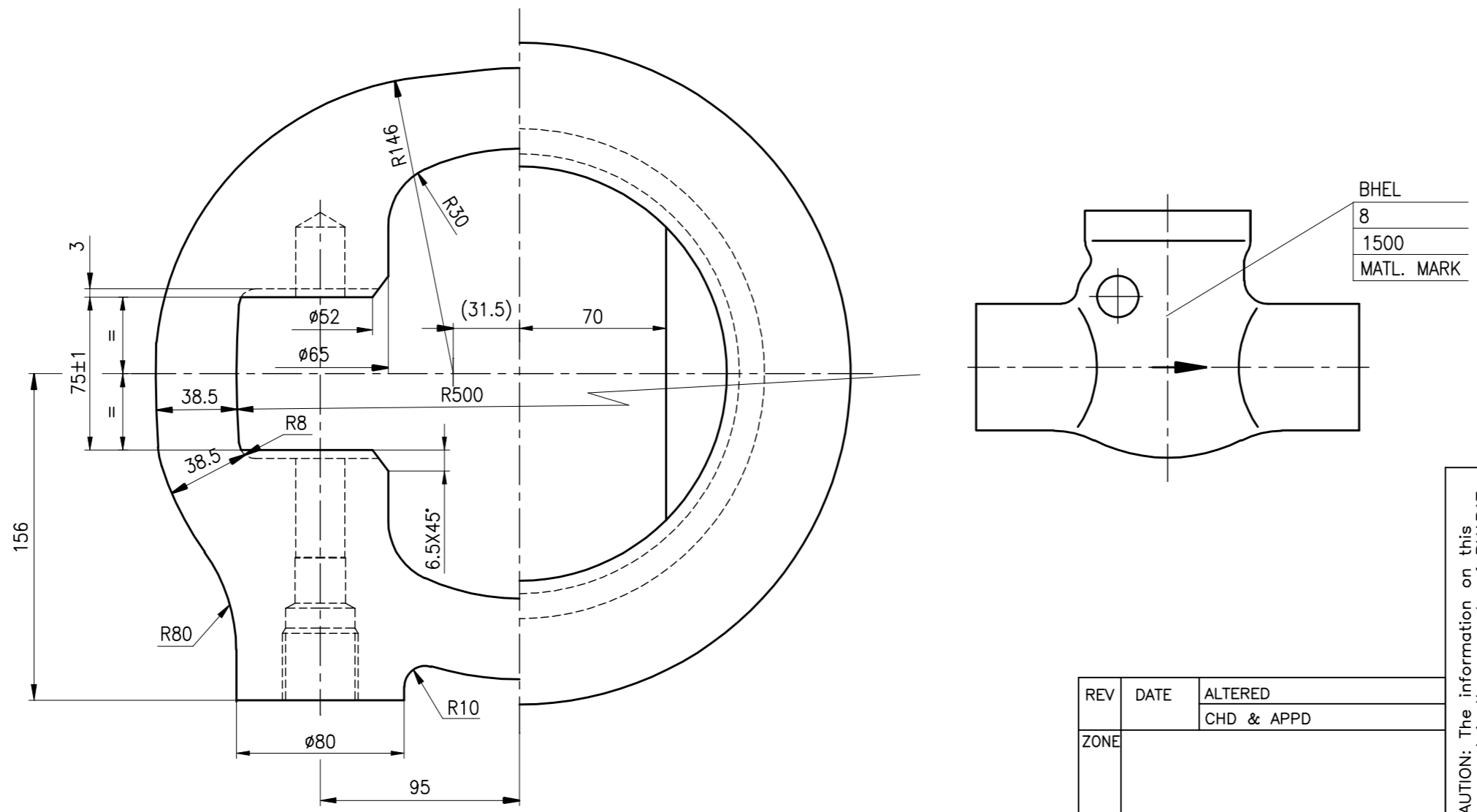
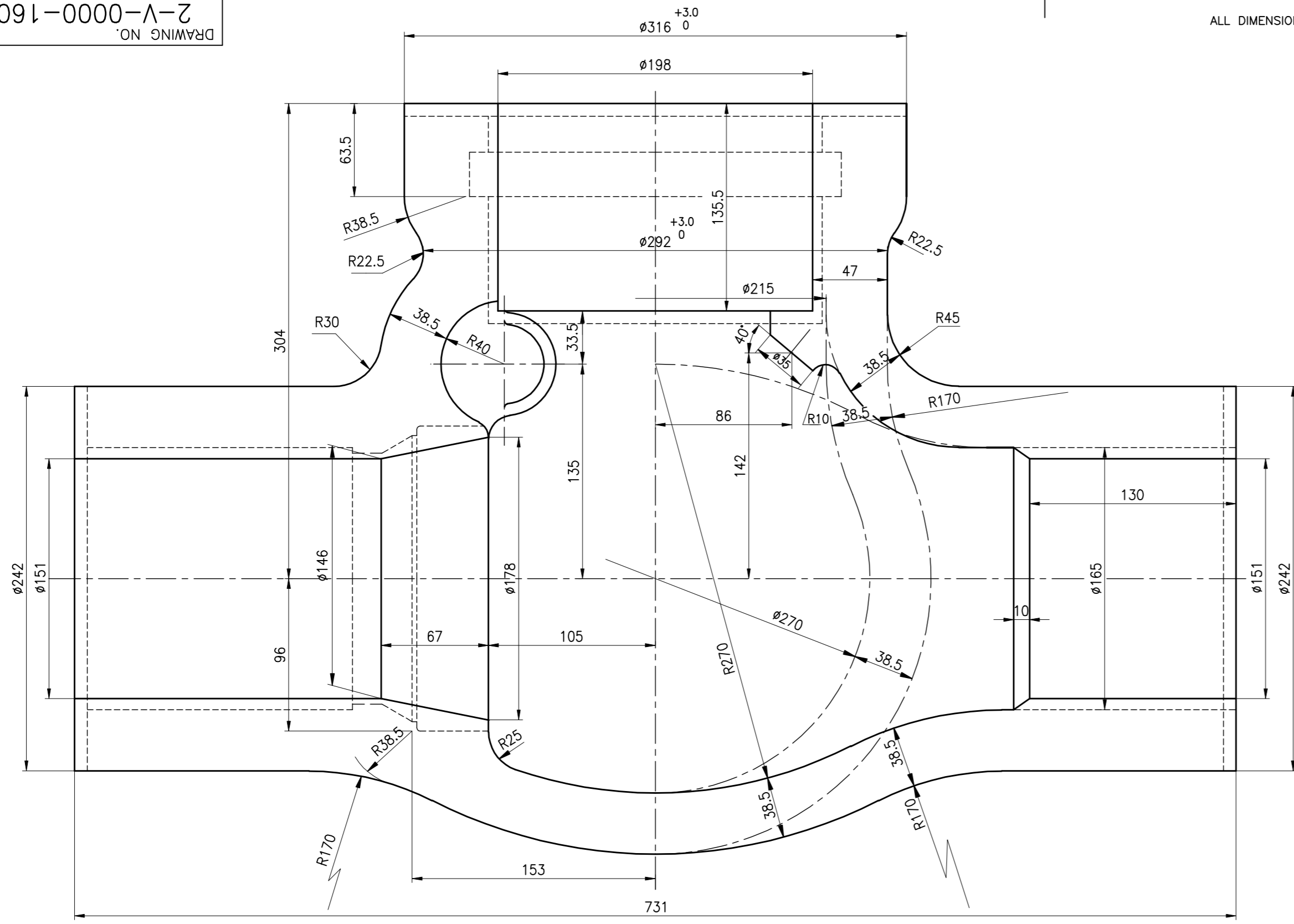
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DRAWING NO. 2-V-0000-16068R

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

**NOTES:**

1. DOTTED LINE SHOWS FINISH MACHINED CONFIGURATION.
2. FOR ALL OTHER DETAILS LIKE DIMENSIONAL TOLERANCES, EMBOSSING ETC. REFER LATEST APPLICABLE QUALITY WORK INSTRUCTION.
- \* 3. ALL THE SPECIAL CLASS CASTINGS ARE TO BE SUBJECTED RT/UT ON ALL CRITICAL LOCATIONS.
- \* 4. ALL EXTERIOR AND ACCESSIBLE INTERIOR SURFACES OF BODY SHALL BE MPI/LPI TESTED.
- \* 5. FOR THESE SPECIAL CLASS VALVE EMBOSSING SHALL BE '1500 SPL'



SL No.	DRAWING No.	MATERIAL SPECN.	MATERIAL CODE	MATL. MARK
*08	2-V-L368-16068R	A217 WC9,NT, ATTEST	92 152 019 0000	WC9
*07	2-V-L367-16068R	A217 WC6,NT, ATTEST	92 152 018 0000	WC6
*06	2-V-L366-16068R	A216 WCC,AN, ATTEST	92 152 017 0000	WCC
*05	2-V-L365-16068R	A216 WCB,AN, ATTEST	92 152 016 0000	WCB
04	2-V-L364-16068R	A217 WC9,NT, ATTEST	92 152 015 0000	WC9
03	2-V-L363-16068R	A217 WC6,NT, ATTEST	92 152 014 0000	WC6
02	2-V-L362-16068R	A216 WCC,AN, ATTEST	92 152 013 0000	WCC
01	2-V-L361-16068R	A216 WCB,AN, ATTEST	92 152 012 0000	WCB

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		TA							
		<b>BHARAT HEAVY ELECTRICALS LTD.,</b> UNIT: HIGH PRESSURE BOILER PLANT. TIRUCHIRAPALLI -620014.		DRN	M.RAJA	SIGN	DATE	NO.OF	
DEPT		VL		SCALE	WEIGHT (KG).		REFERENCE INFORMATION		NO. OF
CODE		320		N T S		244.0		CAD REF: 2-V-0000-16068R	
TITLE		BODY CASTING		8"/1500 CLASS		CARD CODE	DRAWING NO.		REV
						U 01	2-V-0000-16068R		

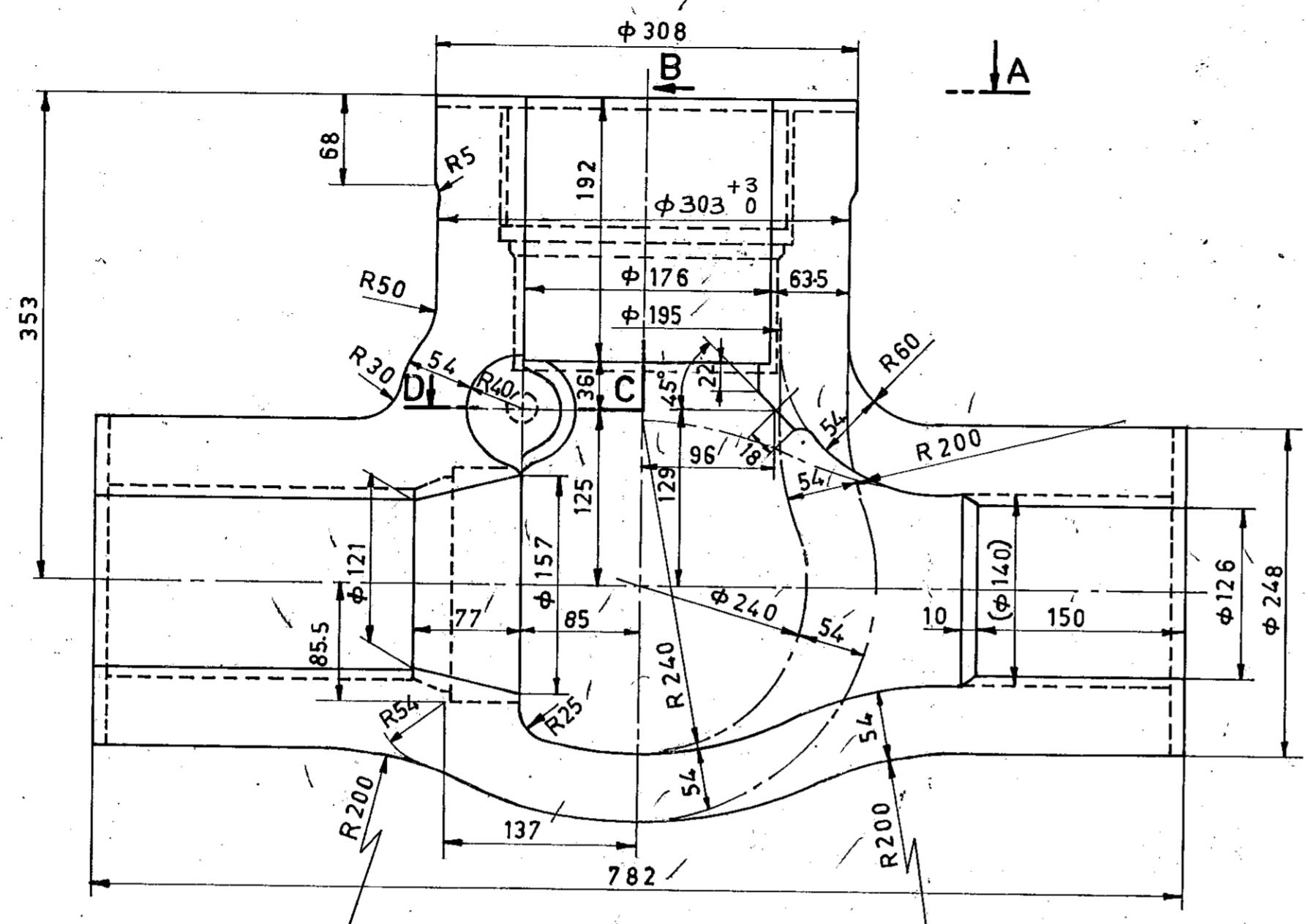
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REV	DATE	ALTERED
		CHD & APPD
ZONE		

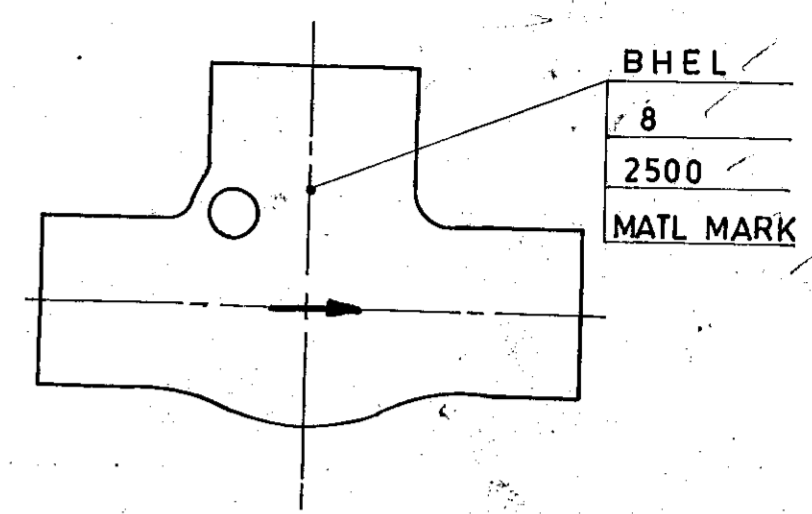
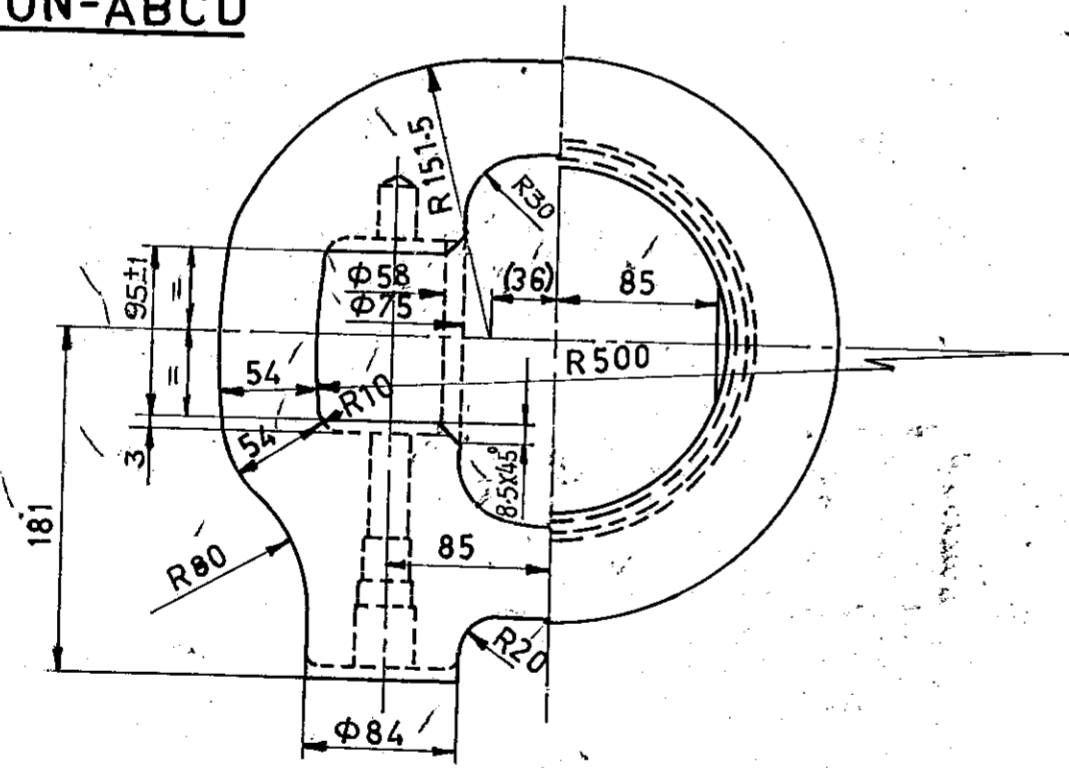
FIRST ANGLE PROJECTION (ALL DIMENSIONS IN MILL.(METRES))

2-V-0000-15001R  
DRAWING NO.

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SECTION-ABCD



NOTES:

- ALL THE SPECIAL CLASS CASTINGS ARE TO BE SUBJECTED RT/UT ON ALL CRITICAL LOCATIONS.
- ALL EXTERIOR AND ACCESIBLE INTERIOR SURFACES OF BODY SHALL BE MPI/LPI TESTED.
- DOTTED LINES SHOWS FINISH MACHINED CONFIGURATION.
- FOR ALL OTHER DETAILS LIKE DIMENSIONAL TOLERANCE PUNCHING DETAILS AND EMBOSSING ETC REFER LATEST APPLICABLE TDC.
- FOR THESE SPECIAL CLASS VALVE EMBOSSING SHALL BE 2500 SPL.

SL.NO.	DRAWING NO.	MATERIAL SPECN	MATL CODE	MATL MARK
8*	2 V L021 15001R	A217 WC9, ATTEST, NT	92 150 096	WC9
7*	2 V L020 15001R	A217 WC6, ATTEST, NT	92 150 095	WC6
6*	2 V L019 15001R	A216 WCC, ATTEST, AN	92 150 094	WCC
5*	2 V L014 15001R	A216 WCB, ATTEST, AN	92 150 093	WCB
4	2 V L009 15001R	A217 WC9, ATTEST, NT	92 150 092	WC9
3	2 V L008 15001R	A217 WC6, ATTEST, NT	92 150 091	WC6
2	2 V L007 15001R	A216 WCC, ATTEST, AN	92 150 090	WCC
1	2 V L002 15001R	A216 WCB, ATTEST, AN	92 150 089	WCB

		<b>BHARAT HEAVY ELECTRICALS LTD.,</b> BOILER PLANT UNIT, TIRUCHIRAPALLI-620 014	
DEPT VL	CODE 320	SCALE NTS	WEIGHT (KG) 420.0
REF. TO ASSY DRG 3-E 25609 (0286)		IT NO.	
TITLE <b>BODY</b> 8/2500CL		A4728B-20	
DIMENSIONS TO BE CONTROLLED WITHIN LIMITS AS SHOWN. MACHINING TOLERANCE ± 0.25 UNLESS OTHERWISE SHOWN NON-MACHINING TOLERANCE ±		1 CARD CODE U01	4 DRAWING NO. REF. TABLE <b>2-V-0000-15001R</b>

REV.	DATE	ALTERED	CHECKED
01			
ZONE			

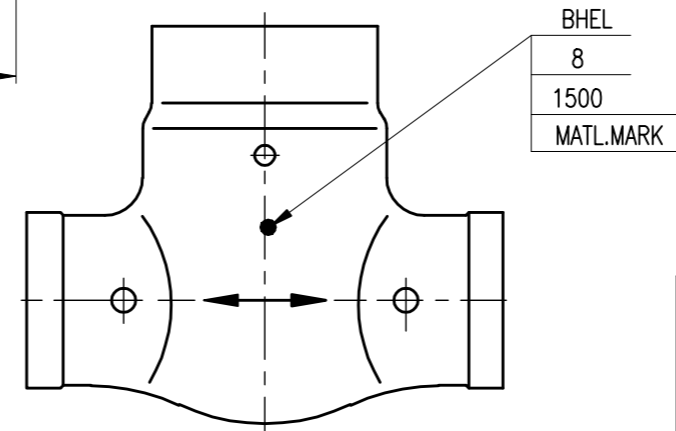
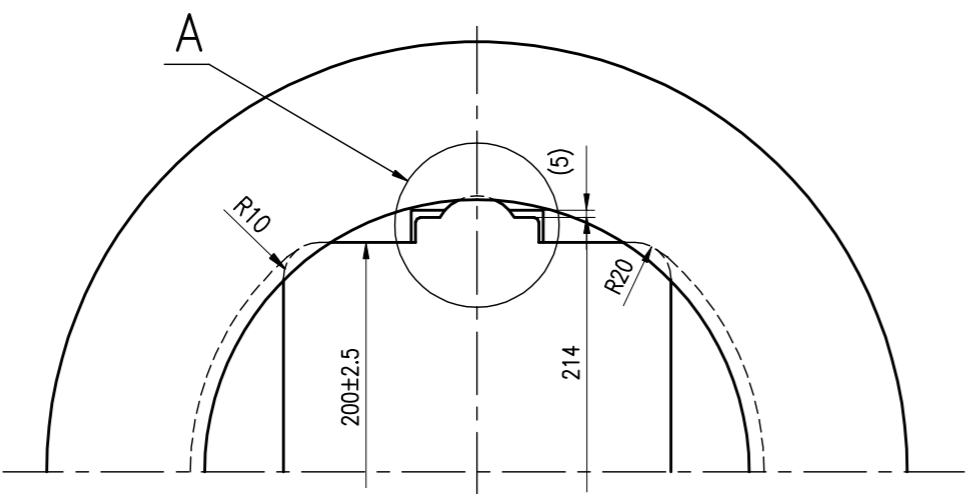
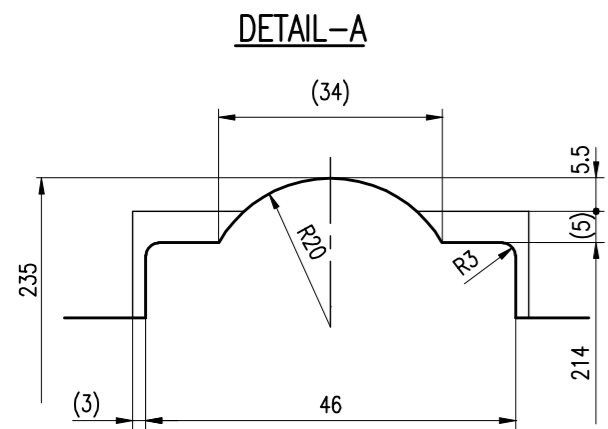
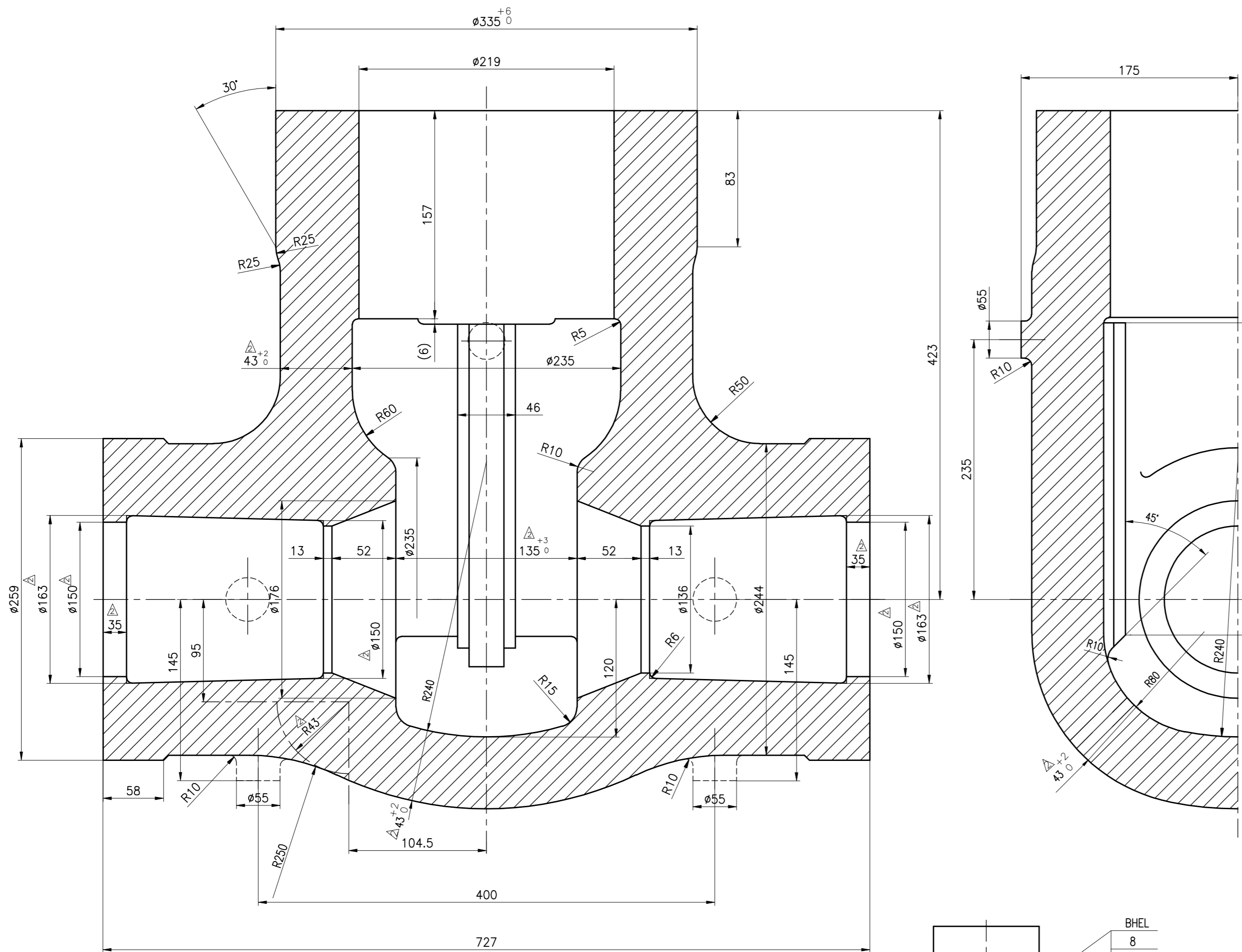
DRAWN	NAME	SIGN	DATE
	KRSEKAR		14-07-84
CHECKED	NAME	SIGN	DATE
	MRE		19-84
APPROVED	NAME	SIGN	DATE
	VB.		14-7-84

DRAWING NO. 2-V-0000-16102R/2

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

NOTES: -

- FOR ALL OTHER DETAILS LIKE DIMENSIONAL TOLERANCE, EMBOSSING, ETC REFER LATEST APPLICABLE QUALITY WORK INSTRUCTIONS.
- \*FOR THESE SPECIAL CLASS VALVE EMBOSSING SHALL BE '1500 SPL'
- \*ALL THE SPECIAL CLASS CASTING ARE TO BE SUBJECTED RT/UT ON ALL CRITICAL LOCATIONS.
- \*ALL EXTERIOR AND ACCESSIBLE INTERIOR SURFACES OF BODY SHALL BE MPI/LPI TESTED.
- BY PASS VALVE PADDING SHALL BE PROVIDED ON BOTH SIDES OF THE BODY
- PRESSURE RELIEVING PAD SHALL BE PROVIDED ON BOTH SIDES OF THE BODY



REDRAWN WITH REV.2 ON 30.5.00

REV	DATE	ALTERED VB
2	30.5.00	CHD & APPDKRS & MRK
ZONE DIMENSIONS 43 <sup>+2</sup> R43, 150 & 135 <sup>+0</sup> WERE 39 <sup>+2</sup> R39, 150 <sup>-0</sup> & 135 RESPECTIVELY Ø163, Ø150 & 35 INCLUDED DCN No.TA1081		

SL NO.	DRAWING NO.	MATL. SPECN	MATL. CODE	MATL. MARK
*08	2-V-V112-16102R/2	A217 WC9, ATTEST, NT	921522000000	WC9
*07	2-V-V111-16102R/2	A217 WC6, ATTEST, NT	921521990000	WC6
*06	2-V-V110-16102R/2	A216 WCC, ATTEST, AN	921521980000	WCC
*05	2-V-V109-16102R/2	A216 WCB, ATTEST, AN	921521970000	WCB
04	2-V-V108-16102R/2	A217 WC9, ATTEST, NT	921521960000	WC9
03	2-V-V107-16102R/2	A217 WC6, ATTEST, NT	921521950000	WC6
02	2-V-V106-16102R/2	A216 WCC, ATTEST, AN	921521940000	WCC
01	2-V-V105-16102R/2	A216 WCB, ATTEST, AN	921521930000	WCB

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.**  
UNIT: HIGH PRESSURE BOILER PLANT.  
TIRUCHIRAPALLI-620014.

DRN	V.BAIRAVAN	SIGN	DATE	NO.OF VAR.
CHD	K.RAJASEKARAN		30.05.00	
APPD	M.RAJAKUMAR		30.05.00	

365-120

DEPT	V L	SCALE	WEIGHT (KG)	REFERENCE INFORMATION	NO. OF YEARS
320		NTS	294	TOA DRG NO. : 3-034338 2-V-0000-16102R-2-0	

TITLE: **BODY (CASTING)**  
8"/1500 CLASS

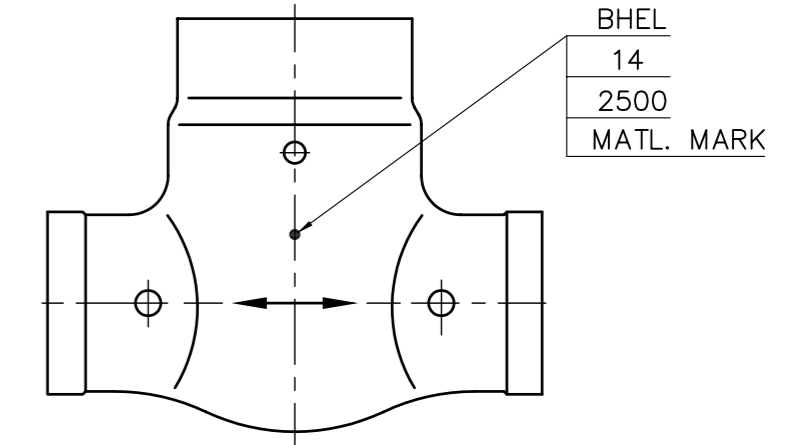
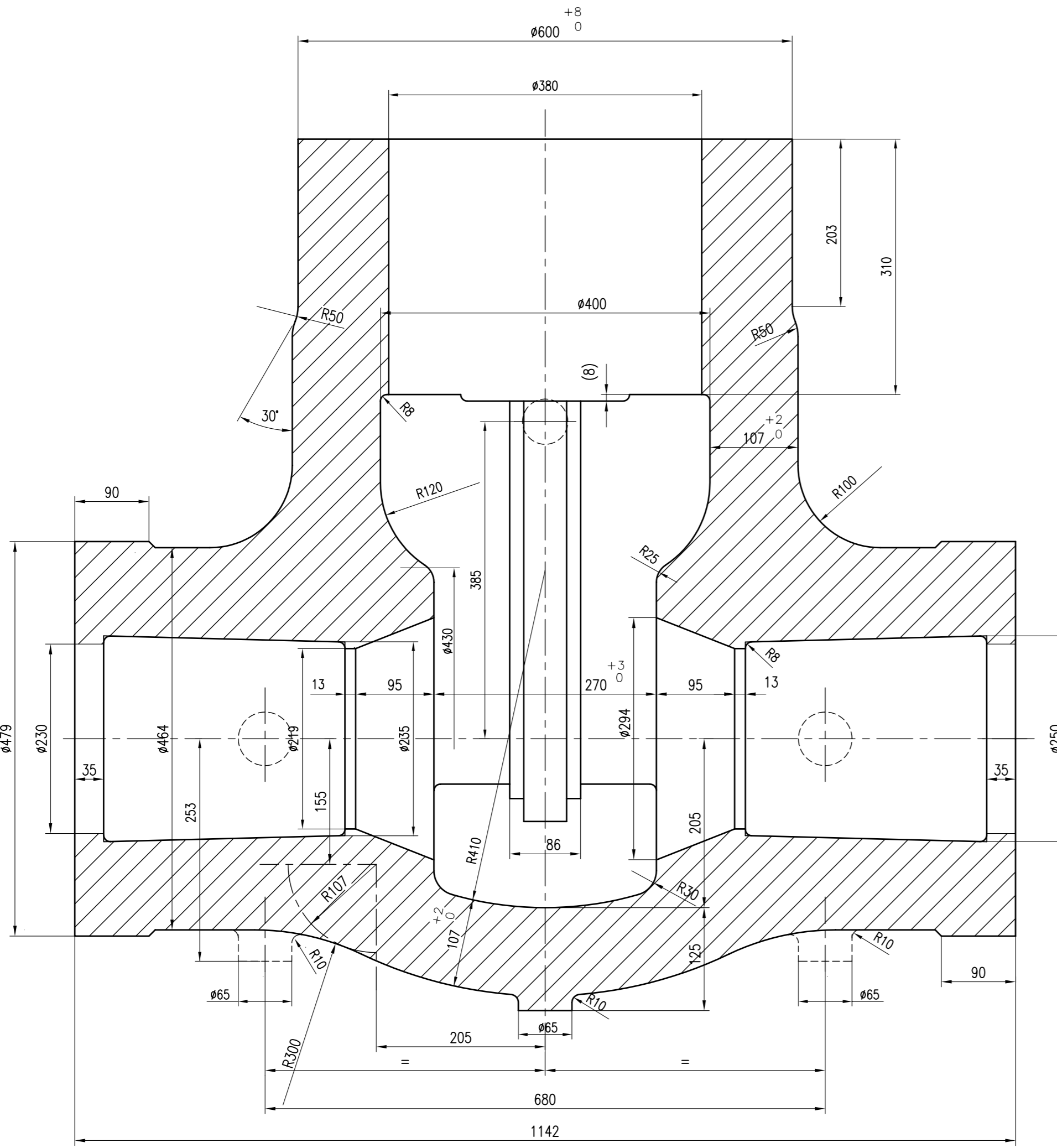
CARD CODE: U 01

DRAWING NO. REF. TABLE: **2-V-0000-16102R**

REV: 2

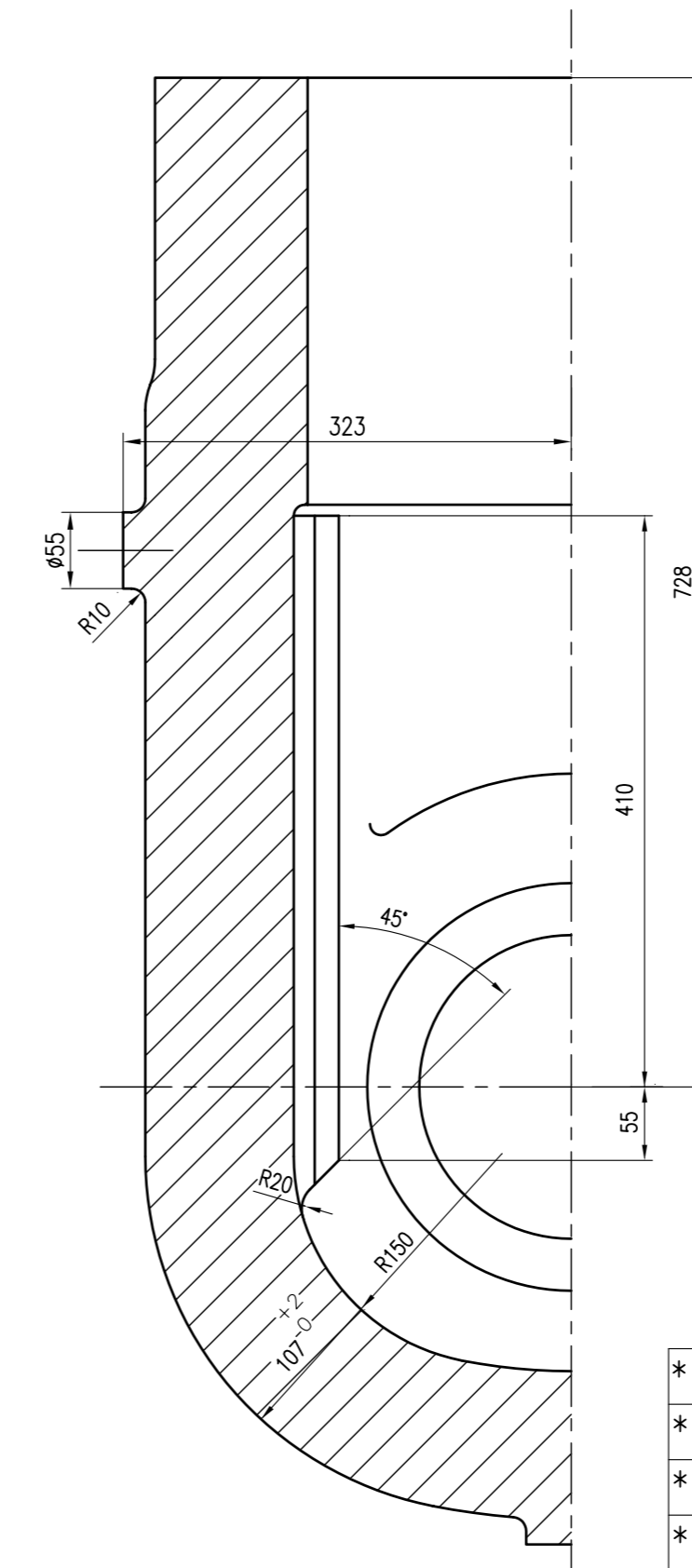
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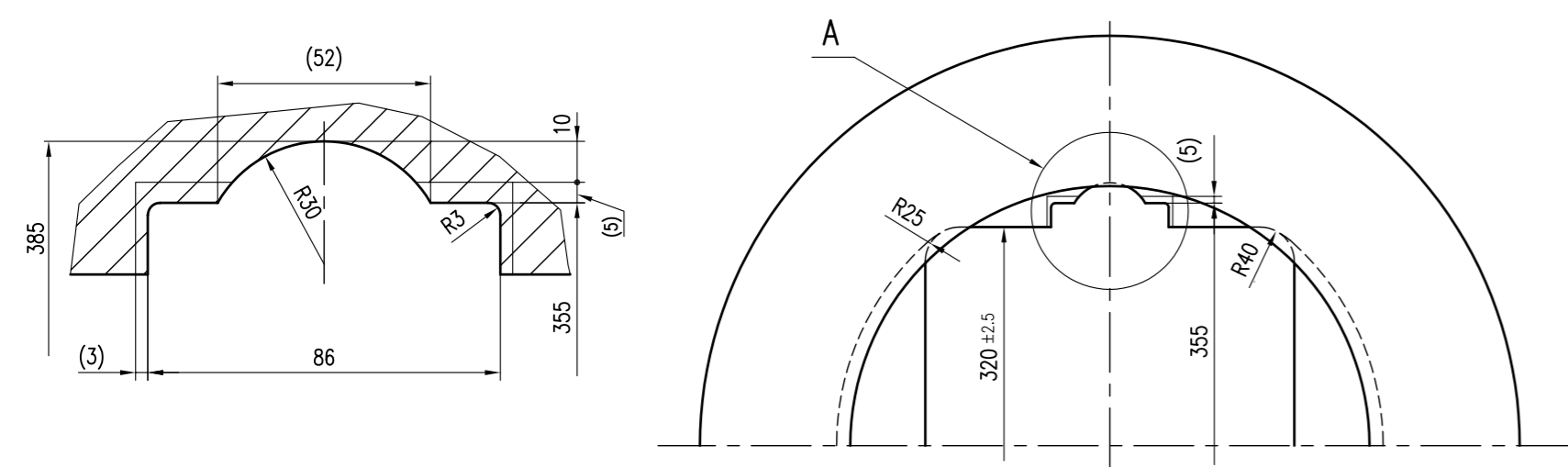


NOTES: -

- FOR ALL OTHER DETAILS LIKE DIMENSIONAL TOLERANCE, EMBOSSING, ETC REFER LATEST APPLICABLE QUALITY WORK INSTRUCTIONS.
- \*FOR THESE SPECIAL CLASS VALVE EMBOSSING SHALL BE '2500 SPL'
- \*ALL THE SPECIAL CLASS CASTING ARE TO BE SUBJECTED RT/UT ON ALL CRITICAL LOCATIONS.
- \*ALL EXTERIOR AND ACCESSIBLE INTERIOR SURFACES OF BODY SHALL BE MPI/LPI TESTED.
- BY PASS VALVE PADDING SHALL BE PROVIDED ON BOTH SIDES OF THE BODY
- PRESSURE RELIEVING PAD SHALL BE PROVIDED ON BOTH SIDES OF THE BODY



DETAIL-A



SL No.	DRAWING No.	MATERIAL SPECN.	MATERIAL CODE	MATL. MARK
*08	2-V-368-16410R	A217 WC9,NT, ATTEST	92 152 433 0000	WC9
*07	2-V-367-16410R	A217 WC6,NT, ATTEST	92 152 432 0000	WC6
*06	2-V-366-16410R	A216 WCC,AN, ATTEST	92 152 431 0000	WCC
*05	2-V-365-16410R	A216 WCB,AN, ATTEST	92 152 430 0000	WCB
04	2-V-364-16410R	A217 WC9,NT, ATTEST	92 152 429 0000	WC9
03	2-V-363-16410R	A217 WC6,NT, ATTEST	92 152 428 0000	WC6
02	2-V-362-16410R	A216 WCC,AN, ATTEST	92 152 427 0000	WCC
01	2-V-361-16410R	A216 WCB,AN, ATTEST	92 152 426 0000	WCB

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

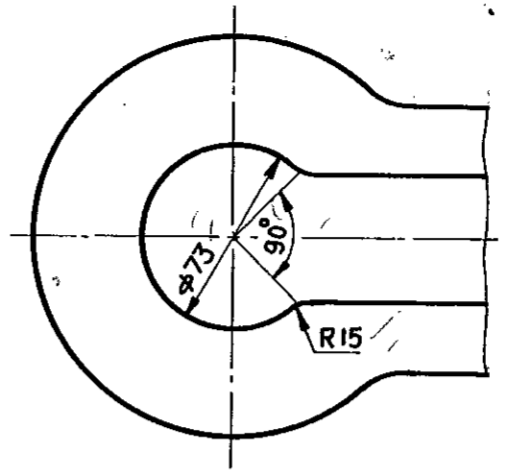
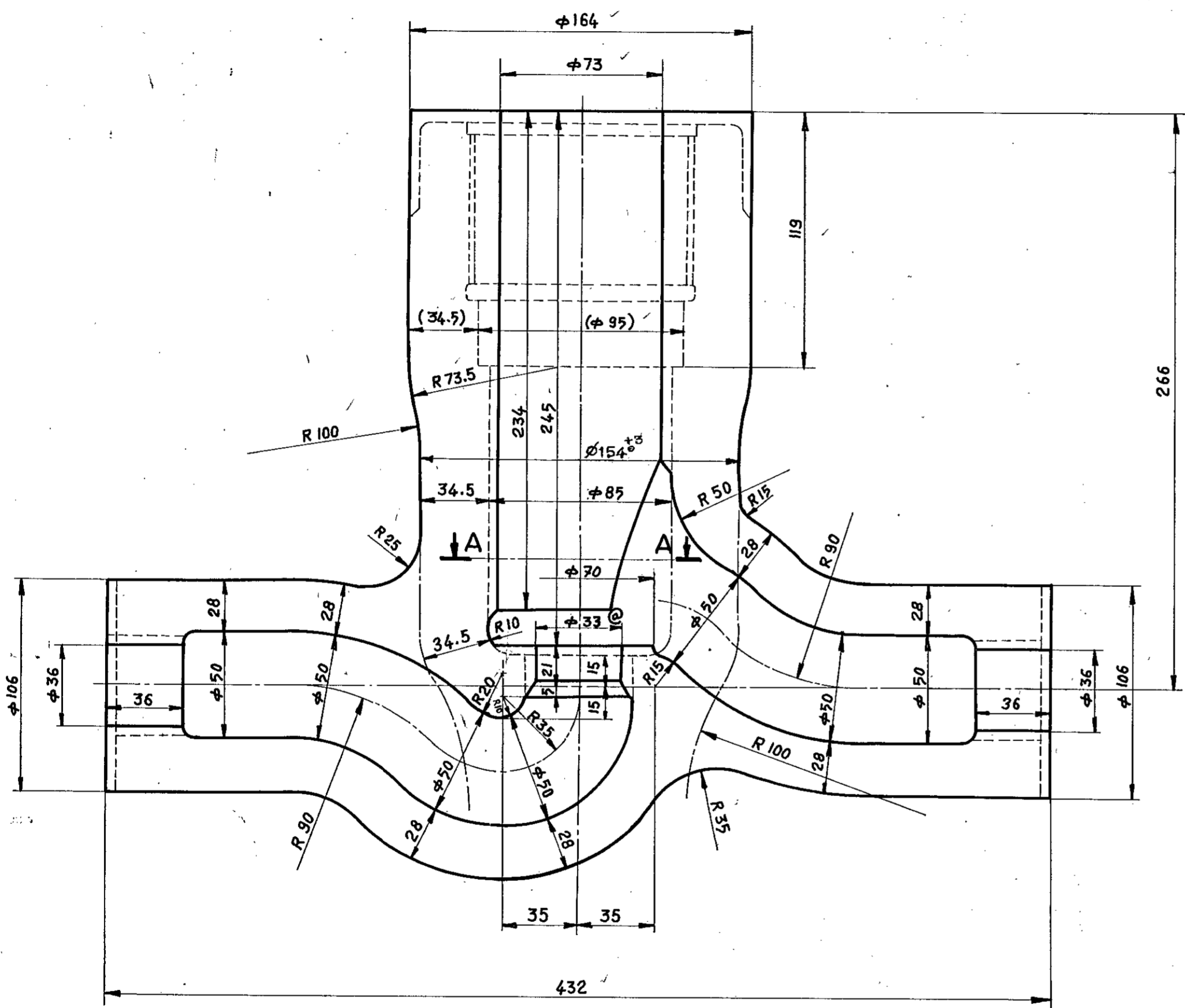
TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT		BHARAT HEAVY ELECTRICALS LTD., UNIT: HIGH PRESSURE BOILER PLANT. TIRUCHIRAPALLI-620014.		DRN V.BAIRAVAN	SIGN	DATE 26.09.02	NO.OF VAR.
DEPT 365-120	V L	SCALE NTS	WEIGHT (KG) 1980	CHD K.RAJASEKARAN		DATE 26.09.02	
CODE 320				APPD M.RAJAKUMAR		DATE 26.09.02	
TITLE CASTING BODY			CARD CODE U 01	REFERENCE INFORMATION CAD REF:T216410R		DRAWING NO. 2-V-0000-16410R	

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.

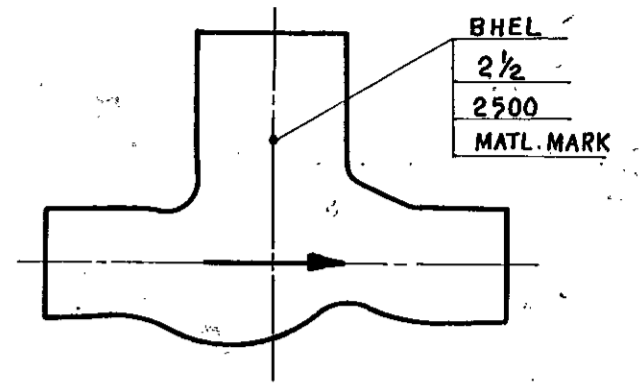
REV	DATE	ALTERED
		CHD & APPD

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1



SECTION-AA



NOTES:

1. DOTTED LINES SHOWS FINISH MACHINED CONFIGURATION.
2. FOR ALL OTHER DETAILS LIKE DIMENSIONAL TOLERANCE, EMBOSING ETC., REFER LATEST APPLICABLE TDC
3. \* FOR THESE SPECIAL CLASS VALVES EMBOSING SHALL BE '2500 SPL'
4. \* ALL THE SPECIAL CLASS CASTINGS ARE TO BE SUBJECTED RT/UT ON ALL CRITICAL LOCATIONS.
5. \* ALL EXTERIOR AND ACCESSIBLE INTERIOR SURFACES OF BODY SHALL BE MPI/LPI TESTED

MPI 759183

8.*	2-V- G040-15084 R/2	A 217 WC9, ATTEST, NT	92 150 203	WC9
7.*	2-V- G039-15084 R/2	A 217 WCB, ATTEST, NT	92 150 204	WC6
6.*	2-V- G038-15084 R/2	A 216 WCC, ATTEST, AN	92 150 205	WCC
5.*	2-V- G037-15084 R/2	A 216 WCB, ATTEST, AN	92 150 206	WCB
4.	2-V- G036-15084 R/2	A 217 WC9, ATTEST, NT	92 150 207	WC9
3.	2-V- G035-15084 R/2	A 217 WC6, ATTEST, NT	92 150 208	WC6
2.	2-V- G034-15084 R/2	A 216 WCC, ATTEST, AN	92 150 209	WCC
1.	2-V- G033-15084 R/2	A 216 WCB, ATTEST, AN	92 150 210	WCB
SL.No.	DRAWING No.	MATERIAL SPECN.	MATL. CODE	MATL. MARK



**BHARAT HEAVY ELECTRICALS LTD.,**  
BOILER PLANT UNIT, TIRUCHIRAPALLI-620 014

DEPT	CODE	SCALE	WEIGHT (KG)	REF DRGS.	IT NO.
VL	320	NTS	58.0	3-E 26 931 (530) 3-E 28 266 (447)	

REV.	DATE	ALTD.	REV.	DATE	ALTERED MRK
2	29.12.94	CHKD: M.R.K.	01	07-02-86	CHECKED V.B.

NOTES MODIFIED IN LINE WITH LATEST TDC

DCN No: TA 0441

ZONE @

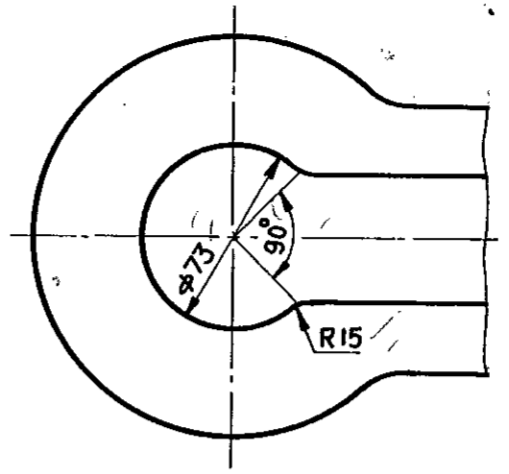
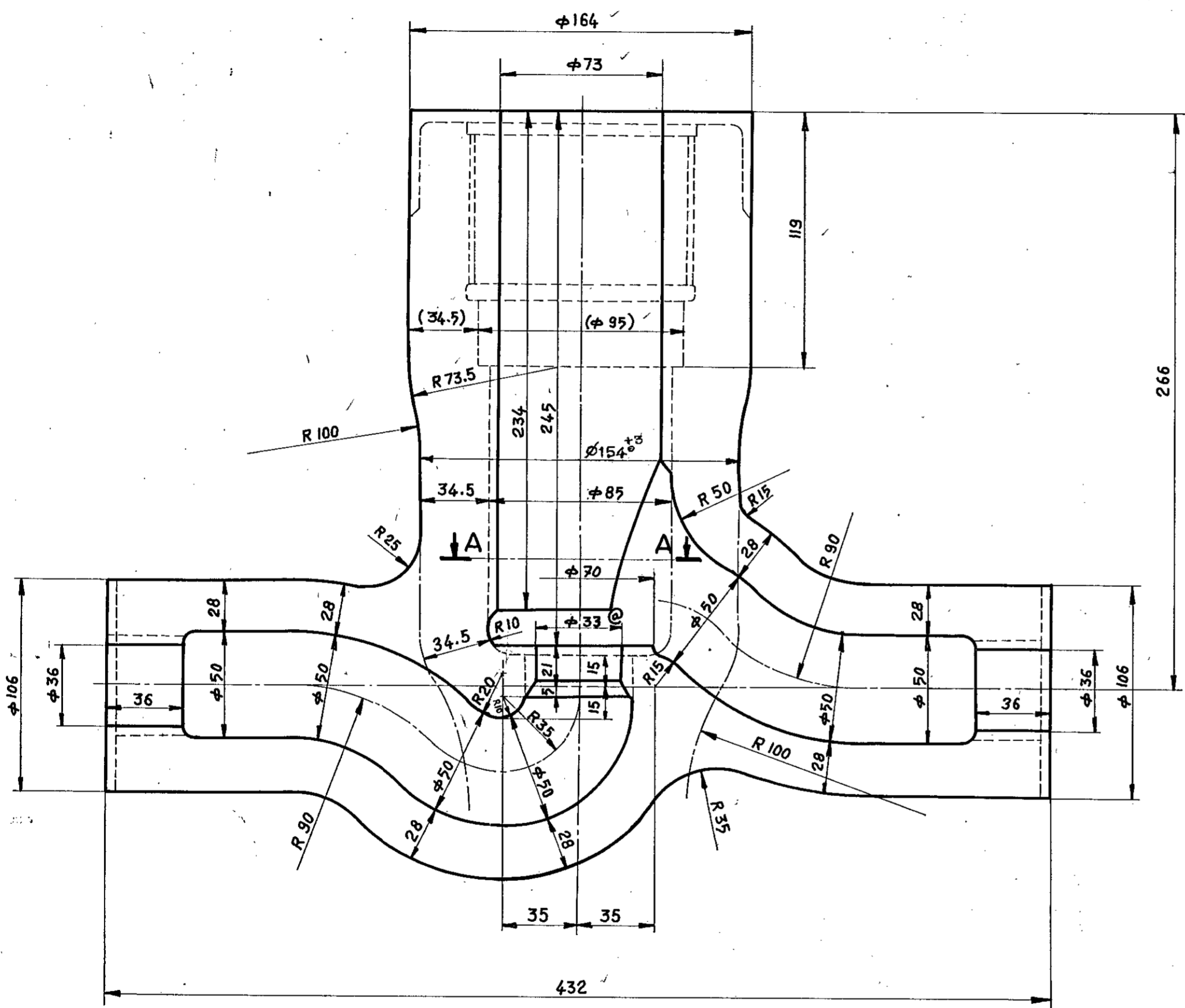
φ 38 CHANGED TO φ 33 TO UNIFY WITH REG. NEEDLE VALVE BODY DRG. No. 3-E 28266 (1447)

TITLE	NAME	SIGN	DATE
<b>BODY</b>	K.N.C		1/12/89
A 312 8 B-6 & 3428 B-6	M.R.K		3/1/89
2 1/2" / 2500 CLASS	V. BABU		9.1.95

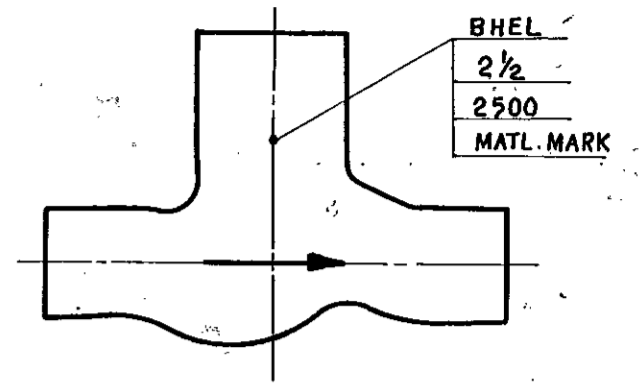
DIMENSIONS TO BE CONTROLLED WITHIN LIMITS AS SHOWN. MACHINING TOLERANCE ± 0.25 UNLESS OTHERWISE SHOWN NON-MACHINING TOLERANCE ±	CARD CODE U 01	4. DRAWING NO. REF. TABLE	15 16 REV. 17
		<b>2-V-0000-15084 R.2</b>	

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1



SECTION-AA



NOTES:

1. DOTTED LINES SHOWS FINISH MACHINED CONFIGURATION.
2. FOR ALL OTHER DETAILS LIKE DIMENSIONAL TOLERANCE, EMBOSING ETC., REFER LATEST APPLICABLE TDC
3. \* FOR THESE SPECIAL CLASS VALVES EMBOSING SHALL BE '2500 SPL'
4. \* ALL THE SPECIAL CLASS CASTINGS ARE TO BE SUBJECTED RT/UT ON ALL CRITICAL LOCATIONS.
5. \* ALL EXTERIOR AND ACCESSIBLE INTERIOR SURFACES OF BODY SHALL BE MPI/LPI TESTED

MPI 759183

8.*	2-V- G040-15084 R/2	A 217 WC9, ATTEST, NT	92 150 203	WC9
7.*	2-V- G039-15084 R/2	A 217 WCB, ATTEST, NT	92 150 204	WC6
6.*	2-V- G038-15084 R/2	A 216 WCC, ATTEST, AN	92 150 205	WCC
5.*	2-V- G037-15084 R/2	A 216 WCB, ATTEST, AN	92 150 206	WCB
4.	2-V- G036-15084 R/2	A 217 WC9, ATTEST, NT	92 150 207	WC9
3.	2-V- G035-15084 R/2	A 217 WC6, ATTEST, NT	92 150 208	WC6
2.	2-V- G034-15084 R/2	A 216 WCC, ATTEST, AN	92 150 209	WCC
1.	2-V- G033-15084 R/2	A 216 WCB, ATTEST, AN	92 150 210	WCB
SL.No.	DRAWING No.	MATERIAL SPECN.	MATL. CODE	MATL. MARK

**BHARAT HEAVY ELECTRICALS LTD.,**  
BOILER PLANT UNIT, TIRUCHIRAPALLI-620 014

DEPT VL CODE 320 SCALE NTS WEIGHT (KG) 58.0 REF DRGS 3-E 26 931 (530) 3-E 28 266 (447) IT NO.

**BODY**  
A 312 8 B-6 & 3428 B-6 2 1/2" / 2500 CLASS

DIMENSIONS TO BE CONTROLLED WITHIN LIMITS AS SHOWN. MACHINING TOLERANCE ± 0.25 UNLESS OTHERWISE SHOWN NON-MACHINING TOLERANCE ±

DRAWING NO. REF. TABLE 2-V-0000-15084 R.2

REV.	DATE	ALTD.	REV.	DATE	ALTERED MRK
2	29.12.94	CHKD: M.R.K.	01	07-02-86	CHECKED V.B.

NOTES MODIFIED IN LINE WITH LATEST TDC

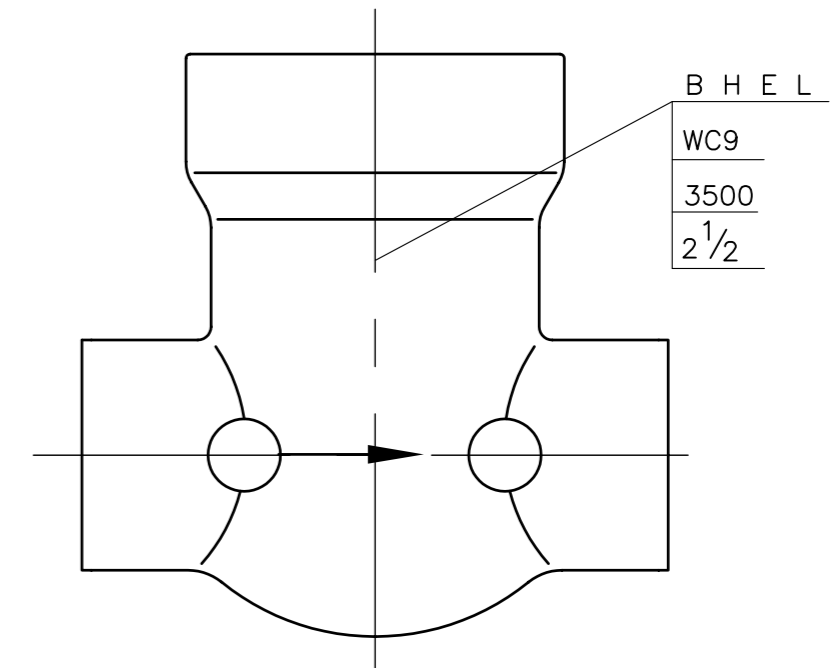
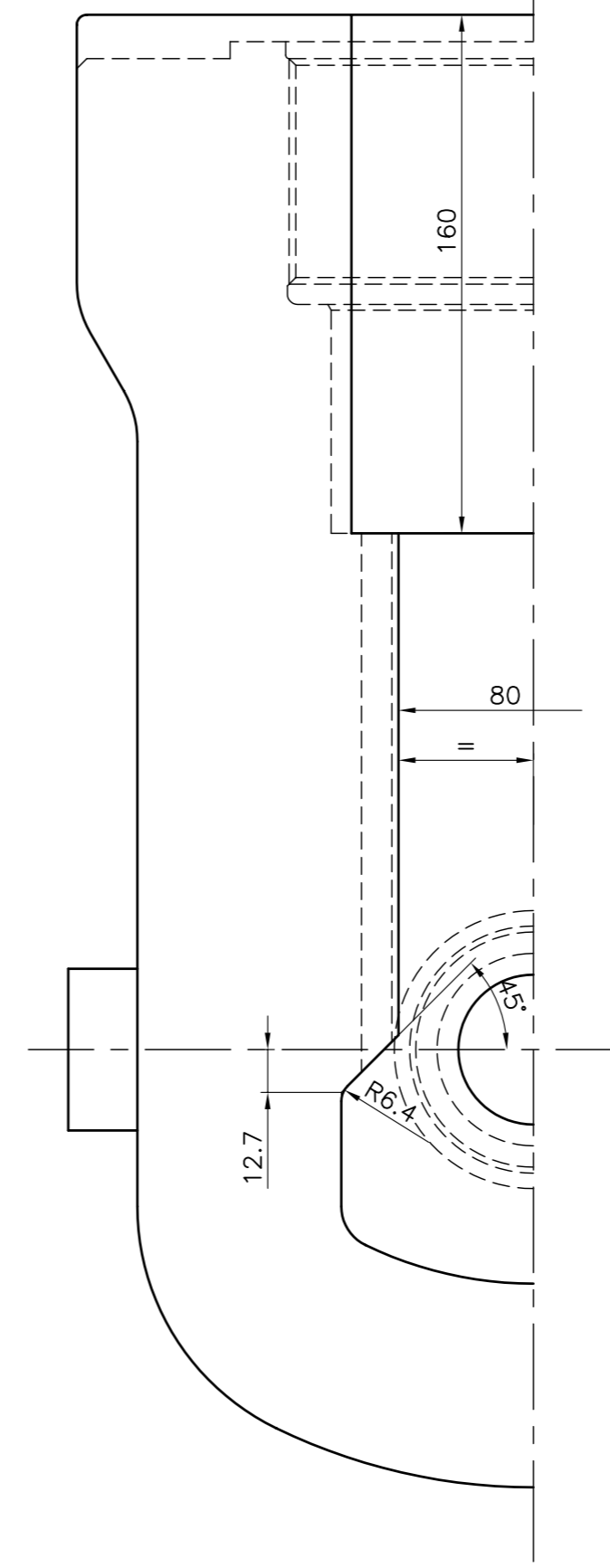
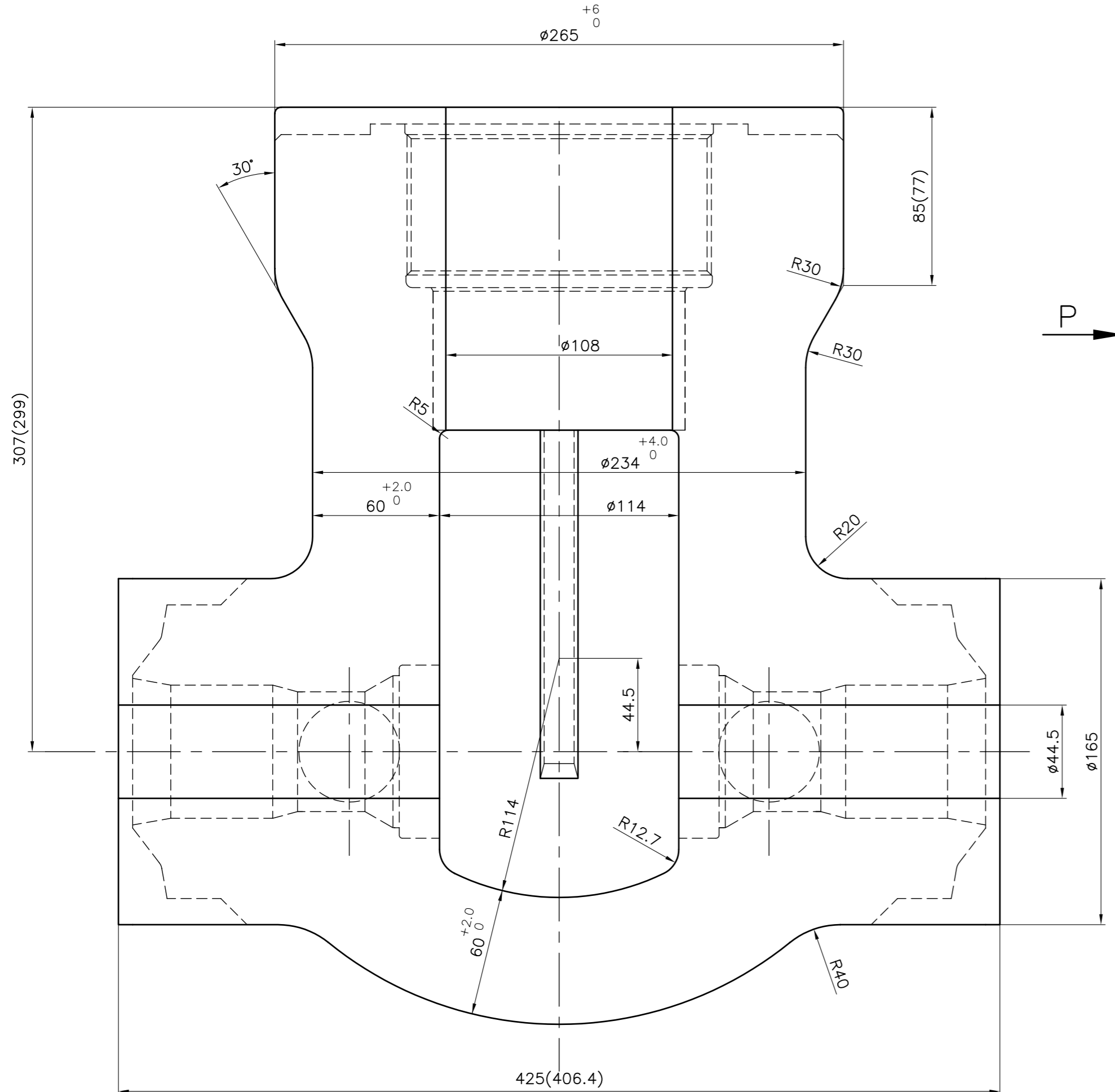
DCN NO: TA 0441

ZONE @ φ 38 CHANGED TO φ 33 TO UNIFY WITH REG. NEEDLE VALVE BODY DRG. No. 3-E 28266 (1447)

NAME	SIGN	DATE
K.N.C	<i>[Signature]</i>	1/12/89
M.R.K	<i>[Signature]</i>	3/1/88
V.BABU	<i>[Signature]</i>	9.1.88

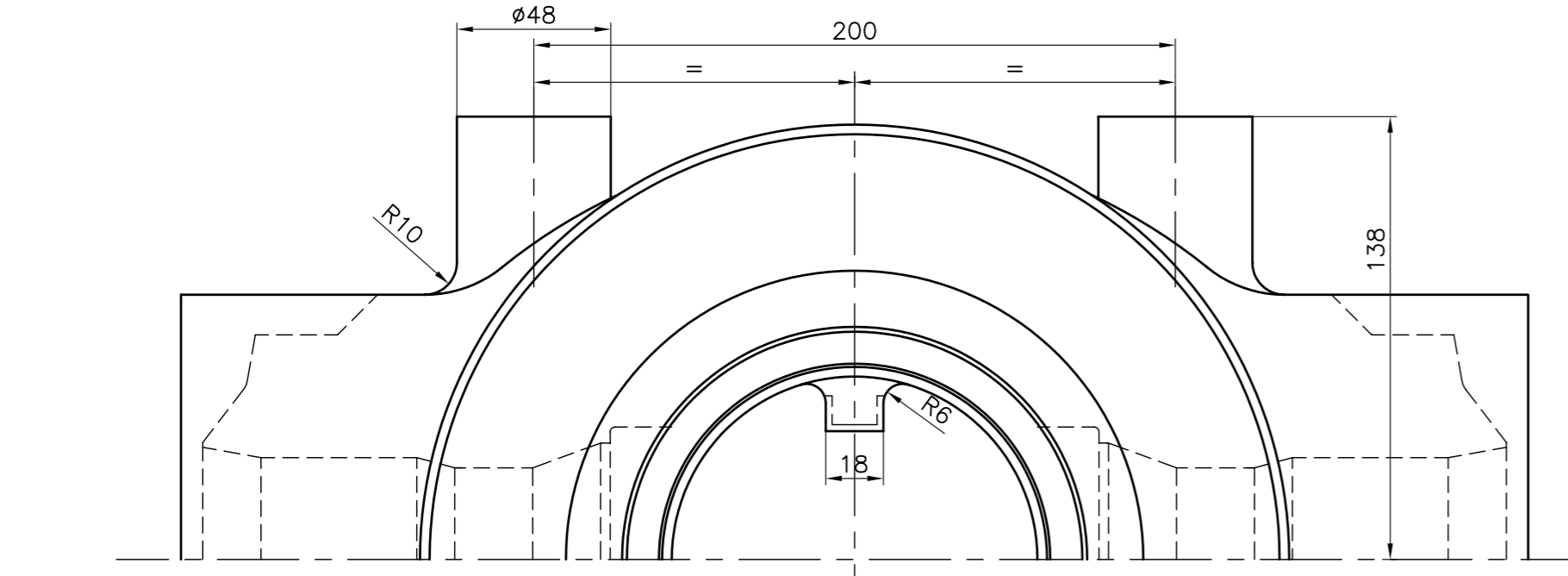
VIEW-P

1



NOTES:

1. DOTTED LINE SHOWS FINISH MACHINED CONFIGURATION.
2. FOR ALL OTHER DETAILS LIKE DIMENSIONAL TOLERANCE,EMBOSSING ETC. REFER LATEST APPLICABLE QUALITY WORK INSTRUCTION.
3. BYPASS VALVE PADDING SHALL BE PROVIDED ON ONE SIDE OF THE BODY.
4. CASTING IS TO BE SUBJECTED RT/UT ON ALL CRITICAL LOCATIONS.
5. ALL EXTERIOR AND ACCESSIBLE INTERIOR SURFACES OF BODY SHALL BE MPI/LPI TESTED.
6. UNSPECIFIED CASTING RADII R3 TO R5
7. HEIGHT OF THE CASTING LETTERS=20mm
8. \*FOR THE SPECIAL CLASS VALVE EMBOSSING SHALL BE '3500 SPL'



02	2-V-C785-14203R	A217 WC9,ATTEST,NT.	922017910000						
*01	2-V-C784-14203R	A217 WC9,ATTEST,NT.	922017130000						
SL. No.	DRAWING No.	MATL. SPECN.	COMP CODE.						
No OFF	DESCRIPTION	MATL CODE	MATL SPECN	HEAT TREATMENT	SCRAP SORT	NET WT (kg)	GROSS WT (kg)	DRAWING No	ITEM No

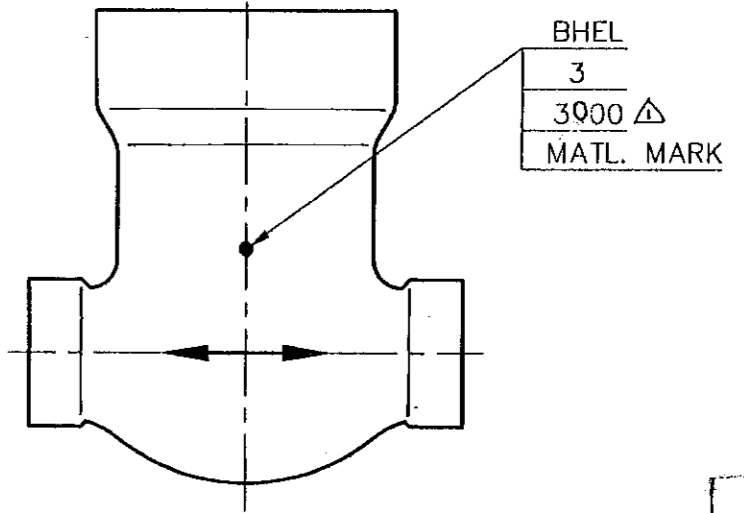
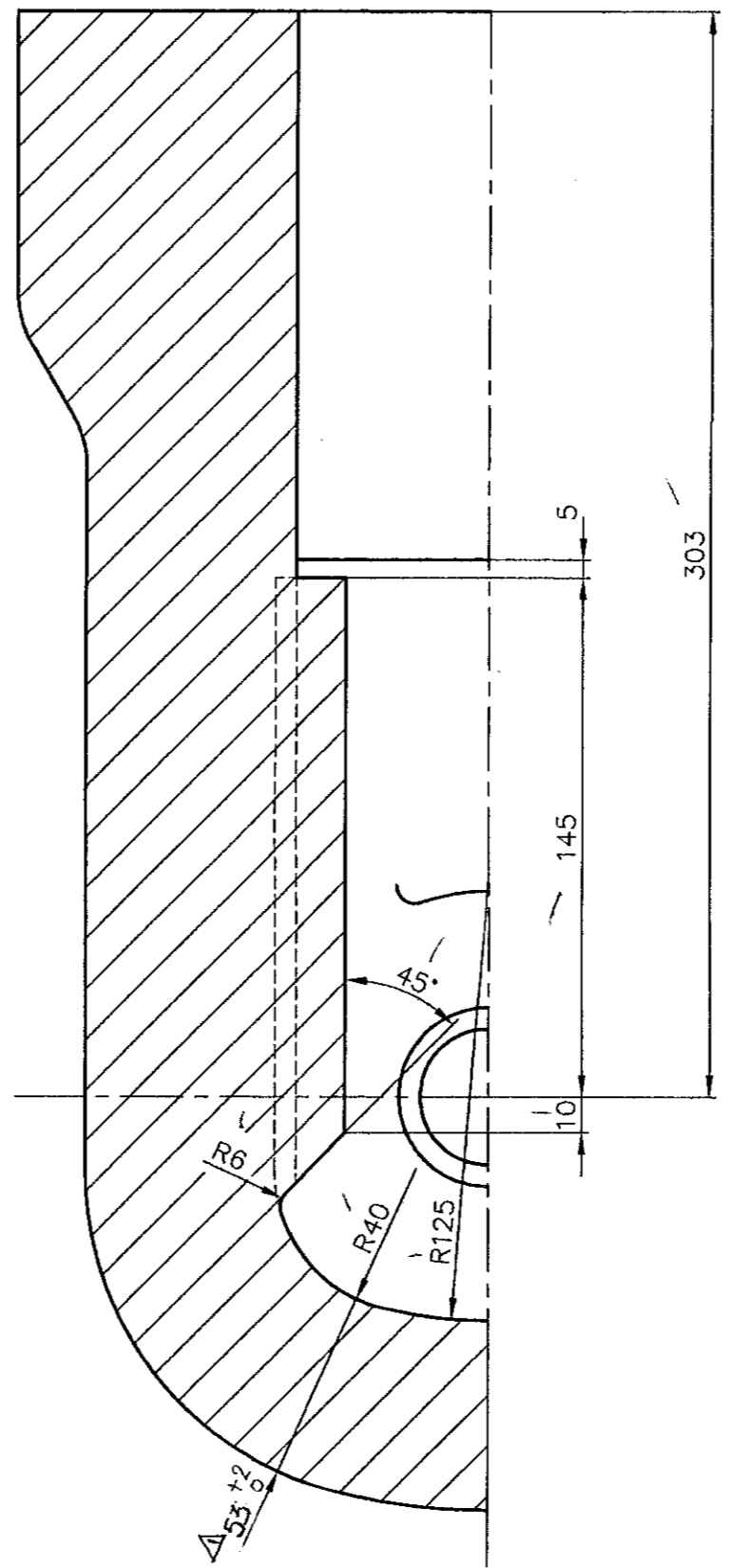
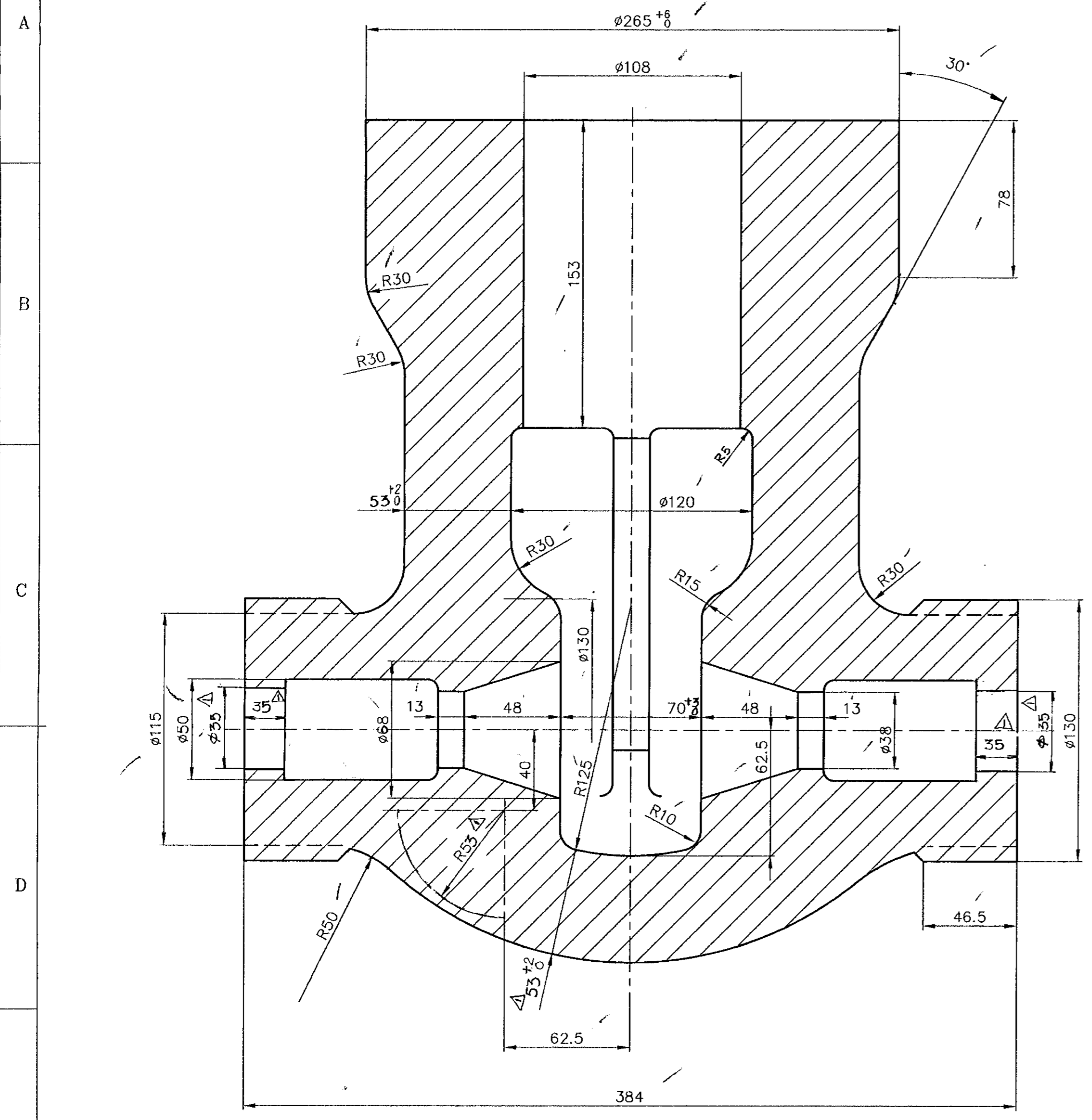
TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT				REFERENCE INFORMATION			
BHARAT HEAVY ELECTRICALS LTD., UNIT: HIGH PRESSURE BOILER PLANT. TIRUCHIRAPALLI-620014.				CAD REF:2-V-0000-14203R-0-0			
DEPT	V L	SCALE	WEIGHT (KG).	REFERENCE INFORMATION		NO. OF ITEMS	
365-120		1:2	138	CAD REF:2-V-0000-14203R-0-0			
CODE	320			DRAWING NO. REF. TABLE		REV	
TITLE				DRAWING NO.		REV	
BODY (CASTING) (2 1/2/3500 CLASS)				2-V-0000-14203R		1	

REV	DATE	ALTERED	VB
1	21.07.08	CHD & APPD	KRS&MRK
ZONE	SL. No.02 INCLUDED.		

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

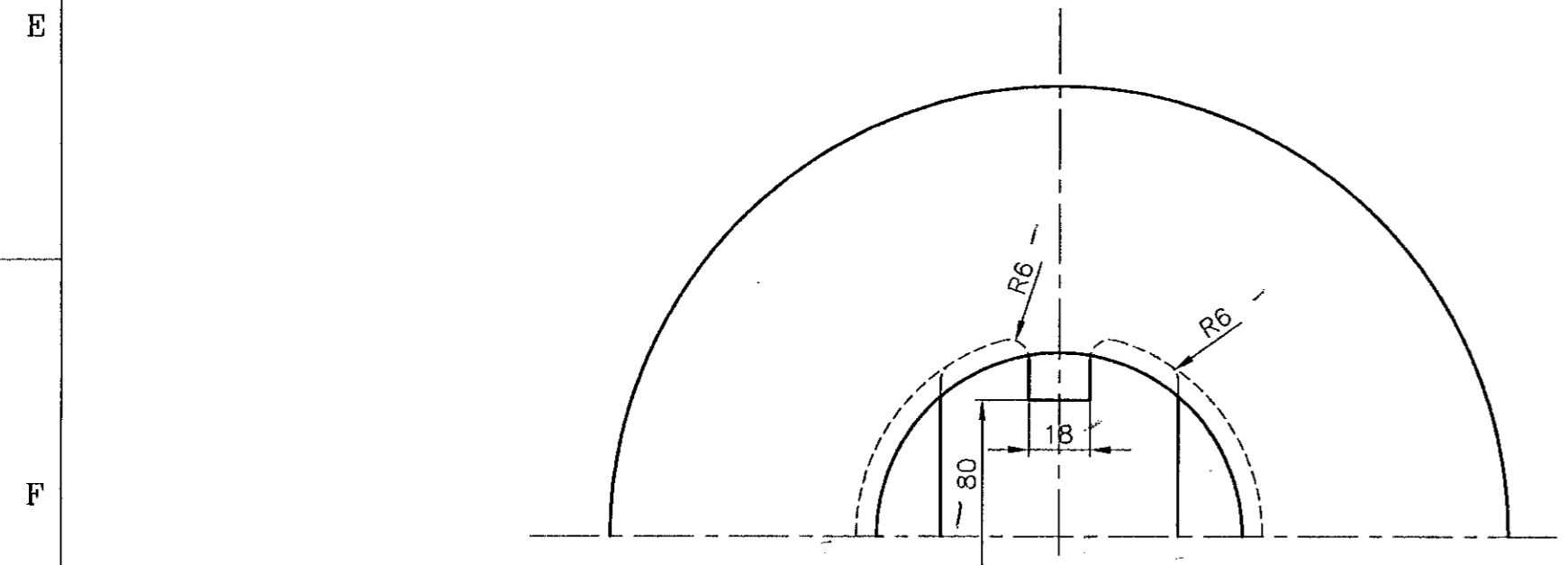
DRAWING NO. 2-V-0000-16115R



**NOTES: -**

- FOR ALL OTHER DETAILS LIKE DIMENSIONAL TOLERANCE, EMBOSING, ETC REFER LATEST APPLICABLE QUALITY WORK INSTRUCTIONS. Δ
- \*FOR THESE SPECIAL CLASS VALVE EMBOSING SHALL BE '3000 SPL' Δ
- \*ALL THE SPECIAL CLASS CASTING ARE TO BE SUBJECTED RT/UT ON ALL CRITICAL LOCATIONS.
- \*ALL EXTERIOR AND ACCESSIBLE INTERIOR SURFACES OF BODY SHALL BE MPI/LPI TESTED.

SL No	DRAWING No.	MATL. SPECN.	MATL. CODE	MATL. MARK
*8	2-V-V416-16115R	A217 WC9,ATTEST,NT	921523040000	WC9
*7	2-V-V415-16115R	A217 WC6,ATTEST,NT	921523030000	WC6
*6	2-V-V414-16115R	A216 WCC,ATTEST,AN	921523020000	WCC
*5	2-V-V413-16115R	A216 WCB,ATTEST,AN	921523010000	WCB
4	2-V-V412-16115R	A217 WC9,ATTEST,NT	921523000000	WC9
3	2-V-V411-16115R	A217 WC6,ATTEST,NT	921522990000	WC6
2	2-V-V410-16115R	A216 WCC,ATTEST,AN	921522980000	WCC
1	2-V-V409-16115R	A216 WCB,ATTEST,AN	921522970000	WCB



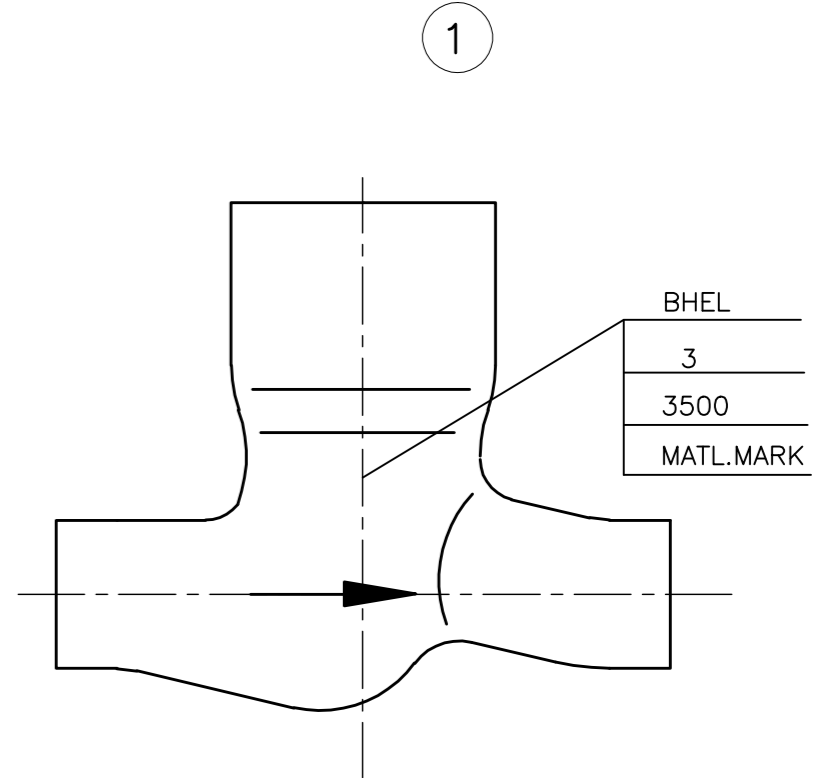
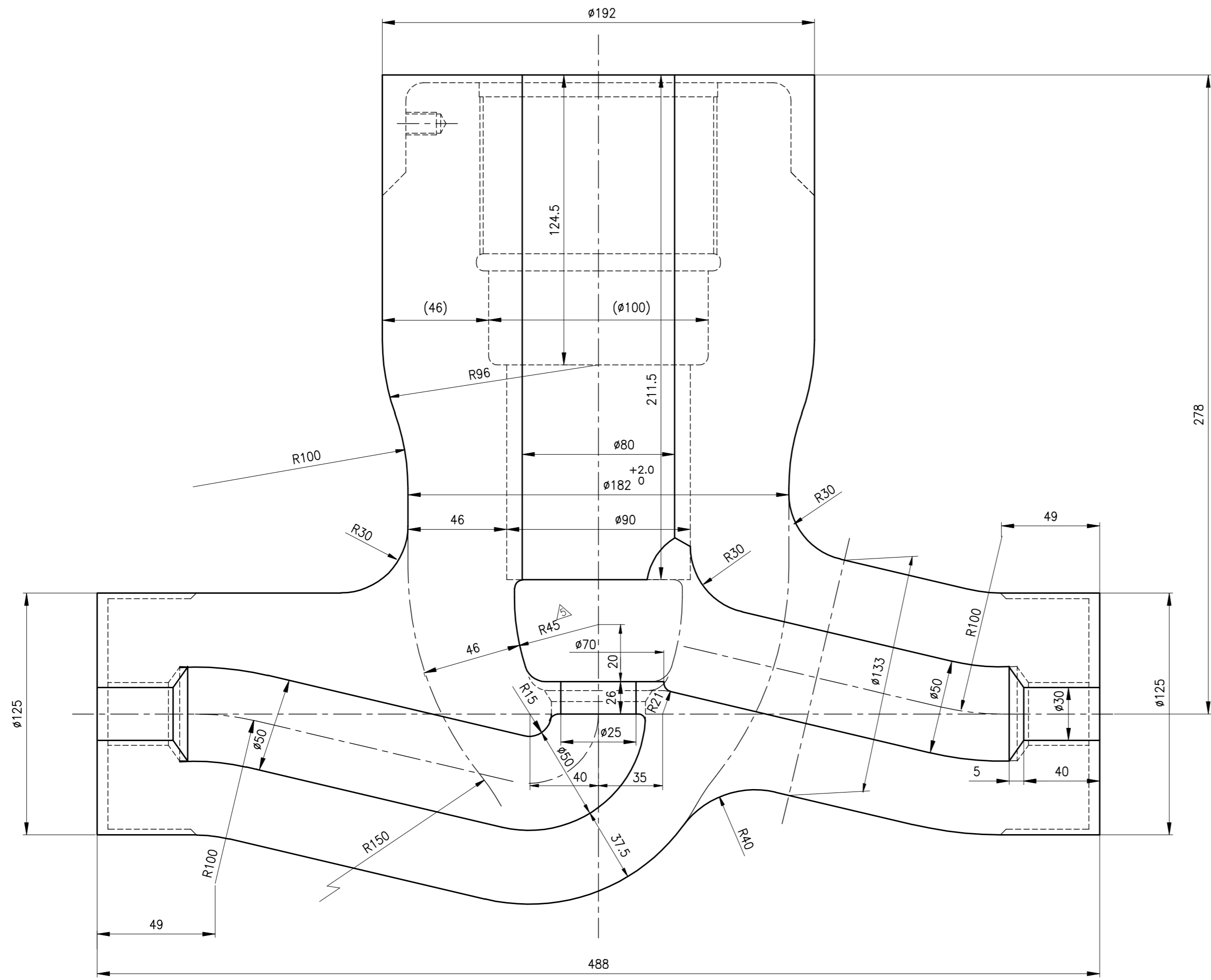
REV	DATE	ALTERED BY
1	30.5.00	CHD & APPD

ZONE DIMENSION 70+0 WAS 70 DIMENSION 125 AND 35 INCLUDED

DCN No. TA1081

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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																																							
<table border="1"> <tr> <td colspan="2">BHARAT HEAVY ELECTRICALS LTD.</td> <td>DRN</td> <td>V.BAIRAVAN</td> <td>SIGN</td> <td>[Signature]</td> <td>DATE</td> <td>31.3.99</td> <td colspan="2">NO. OF VAR.</td> </tr> <tr> <td colspan="2">UNIT: HIGH PRESSURE BOILER PLANT.</td> <td>CHD</td> <td>K.RAJASEKARAN</td> <td colspan="2"></td> <td></td> <td>31.3.99</td> <td colspan="2"></td> </tr> <tr> <td colspan="2">TIRUCHIRAPALLI-620014.</td> <td>APPD</td> <td>M.RAJKUMAR.</td> <td colspan="2"></td> <td></td> <td>11.4.99</td> <td colspan="2"></td> </tr> </table>										BHARAT HEAVY ELECTRICALS LTD.		DRN	V.BAIRAVAN	SIGN	[Signature]	DATE	31.3.99	NO. OF VAR.		UNIT: HIGH PRESSURE BOILER PLANT.		CHD	K.RAJASEKARAN				31.3.99			TIRUCHIRAPALLI-620014.		APPD	M.RAJKUMAR.				11.4.99		
BHARAT HEAVY ELECTRICALS LTD.		DRN	V.BAIRAVAN	SIGN	[Signature]	DATE	31.3.99	NO. OF VAR.																															
UNIT: HIGH PRESSURE BOILER PLANT.		CHD	K.RAJASEKARAN				31.3.99																																
TIRUCHIRAPALLI-620014.		APPD	M.RAJKUMAR.				11.4.99																																
DEPT	V L	SCALE	WEIGHT (KG).	REFERENCE INFORMATION		NO. OF TRAC																																	
320		N T S	129	TOA DRG No. : 3-38327		CAD REF No. : T216115R																																	
TITLE			CARD CODE	DRAWING NO.		REV																																	
BODY			U 01	2-V-0000-16115R		1																																	
				3"/3000CLASS																																			



NOTES:-

1. DOTTED LINES SHOWS FINISH MACHINED CONFIGURATION.
2. \*FOR THESE SPECIAL CLASS VALVE EMBOSING SHALL BE '3500 SPL.'
3. FOR ALL OTHER DETAILS LIKE DIMENSIONAL TOLERANCE, EMBOSING, PUNCHING DETAILS AND HYDRAULIC TEST PRESSURE ETC.REFER LATEST APPLICABLE TDC.
4. \*ALL THE SPECIAL CLASS CASTING ARE TO BE SUBJECTED RT/UT ON ALL CRITICAL LOCATIONS.
5. \*ALL EXTERIOR AND ACCESSIBLE INTERIOR SURFACES OF BODY SHALL BE MPI/LPI TESTED.
6. \*MARKED TYPES ARE SPECIAL CLASS RATING.

REDRAWN WITH REV.4 ON 09.07.10

REV	DATE	ALTERED VB	REV	DATE	ALTERED : VB
5	02.11.11	CHD & APPD SSK & KRS	4	09.07.10	CHD & APPD : SSK&KRS
ZONE DIMENSION R45 WAS R42.5			ZONE WT.99.5 WAS 153		
DCP No.801247			DCP.NO:801069		

SL. No.	DRAWING No.	MATL. CODE	MATL. SPECN.	MATL. MARK
*08	2-V-R148-15526R/5	921513420000	A217 WC9, ATTEST,NT	WC9
*07	2-V-R147-15526R/5	921513410000	A217 WC6, ATTEST,NT	WC6
*06	2-V-R146-15526R/5	921513400000	A216 WCC, ATTEST,AN	WCC
*05	2-V-R145-15526R/5	921513390000	A216 WCB, ATTEST,AN	WCB
04	2-V-R144-15526R/5	921513380000	A217 WC9, ATTEST,NT	WC9
03	2-V-R143-15526R/5	921513370000	A217 WC6, ATTEST,NT	WC6
02	2-V-R142-15526R/5	921513360000	A216 WCC, ATTEST,AN	WCC
01	2-V-R141-15526R/5	921513350000	A216 WCB, ATTEST,AN	WCB

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

**BHARAT HEAVY ELECTRICALS LTD.**  
UNIT: HIGH PRESSURE BOILER PLANT.  
TIRUCHIRAPALLI - 620014.

DRN	V.BAIRAVAN	SIGN	DATE	09.07.10	NO.OF VAR.
CHD	S.SATHEES		DATE	09.07.10	
APPD	K.RAJASEKARAN		DATE	09.07.10	

DEPT VL 365-120 SCALE N.T.S WEIGHT (KG) 99.5 REFERENCE INFORMATION

CODE 320

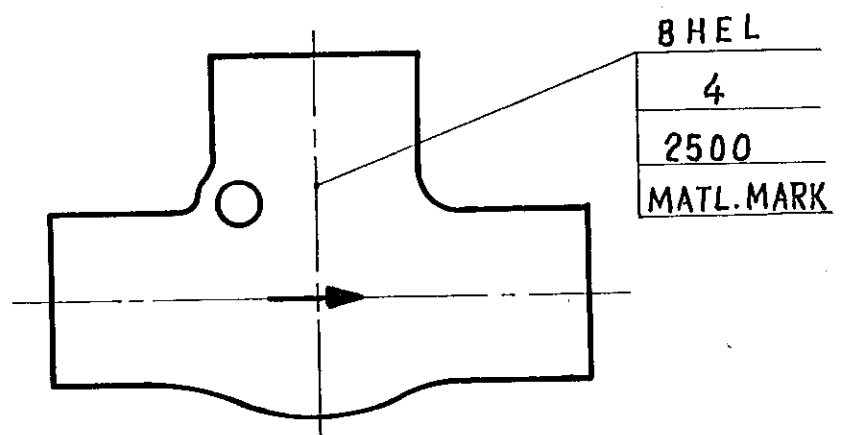
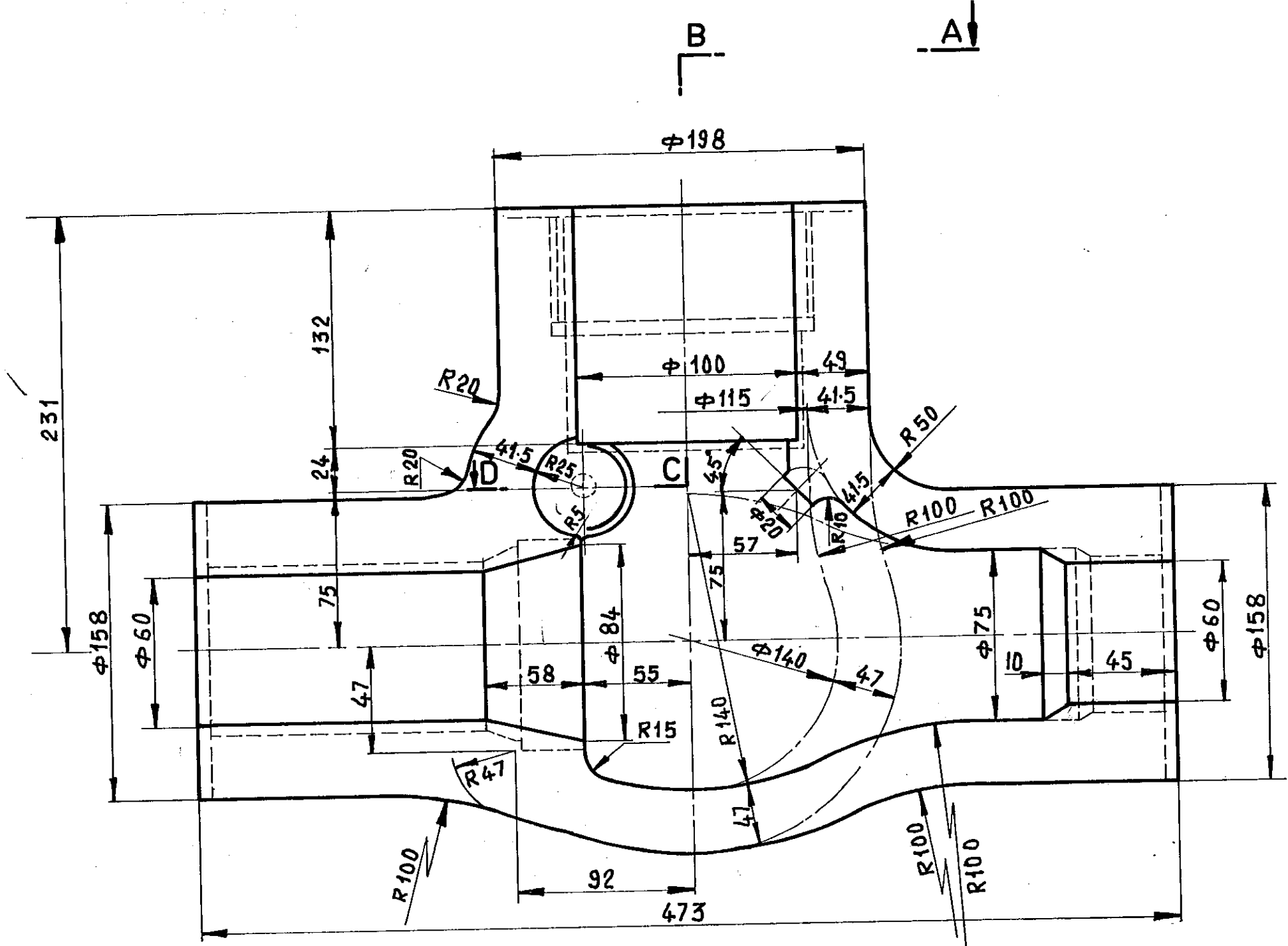
TITLE **BODY (CASTING)** (3"-3500 CL)

CARD CODE U 01 DRAWING NO. 2-V-0000-15526R REV 5

FIRST ANGLE PROJECTION (ALL DIMENSIONS IN MILLIMETRES)

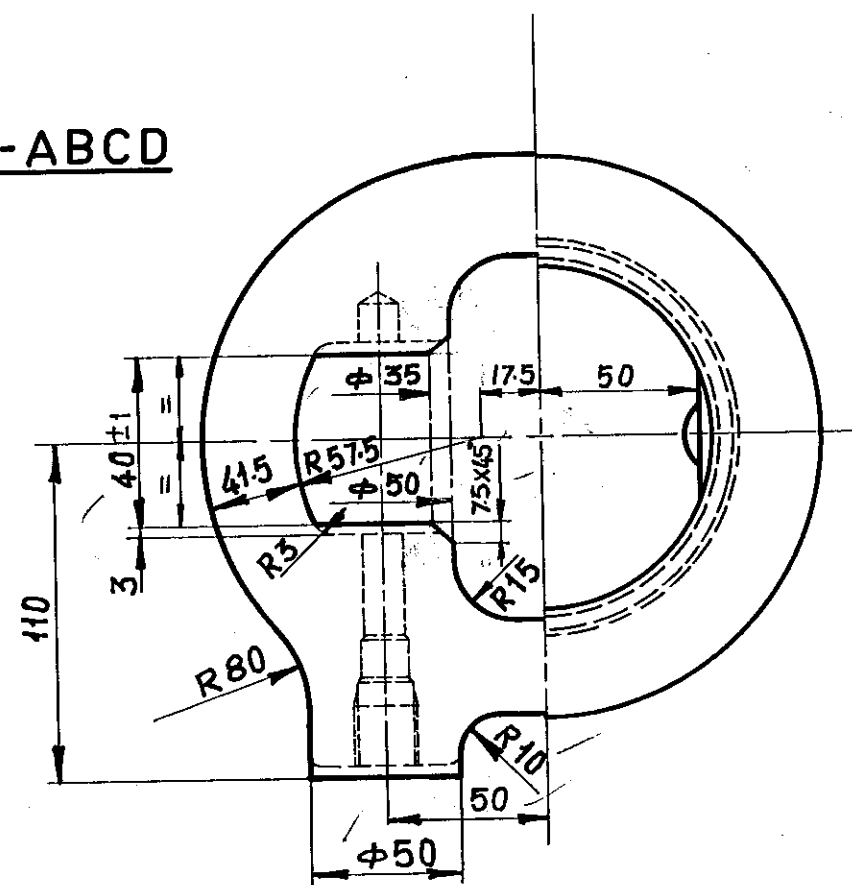
05-228 / C

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- NOTE:**
1. DOTTED LINES SHOWS FINISH MACHINED CONFIGURATION.
  2. FOR ALL OTHER DETAILS LIKE DIMENSIONAL TOLERANCE, PUNCHING DETAILS AND EMBOSSING ETC. REFER LATEST APPLICABLE TDC.
  3. \* FOR THESE SPECIAL CLASS VALVE EMBOSSING SHALL BE '2500 SPL.'
  4. \* ALL THE SPECIAL CLASS CASTINGS TO BE SUBJECTED RT/UT ON ALL CRITICAL LOCATIONS.
  5. \* ALL EXTERIOR AND ACCESSIBLE INTERIOR SURFACES OF BODY SHALL BE MPI/LPI TESTED.

**SECTION-ABCD**



**MP** 1016485

SL. NO.	DRAWING NO.	MATL. SPECN.	MATL. CODE	MATL. MARK
8*	2-V-L104-15228R	A217-WC9,NT,ATTEST.	92150721	WC9
7*	2-V-L103-15228R	A217-WC6,NT,ATTEST.	92150999	WC6
6*	2-V-L102-15228R	A216-WCC,AN,ATTEST.	92150998	WCC
5*	2-V-L101-15228R	A216-WCB,AN,ATTEST.	92150997	WCB
4	2-V-L100-15228R	A217-WC9,NT,ATTEST.	92150996	WC9
3	2-V-L099-15228R	A217-WC6,NT,ATTEST.	92150995	WC6
2	2-V-L098-15228R	A216-WCC,AN,ATTEST.	92150994	WCC
1	2-V-L097-15228R	A216-WCB,AN,ATTEST.	92150993	WCB

TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT

**Bharat Heavy Electricals Ltd.,**  
BOILER PLANT UNIT  
TIRUCHIRAPALLI-620 014

DRN	NAME	DATE	NO. OF VAR
CHD		24.4.81	
APPD		3/5/81	

SCALE: NTS

WEIGHT (kg):

REF TOA DRG: 3-E30842

ITEM NO.:

DEPT: 320

GRADE OF UNITS: 4/M/F

TITLE: **BODY**

CARD CODE: U 01

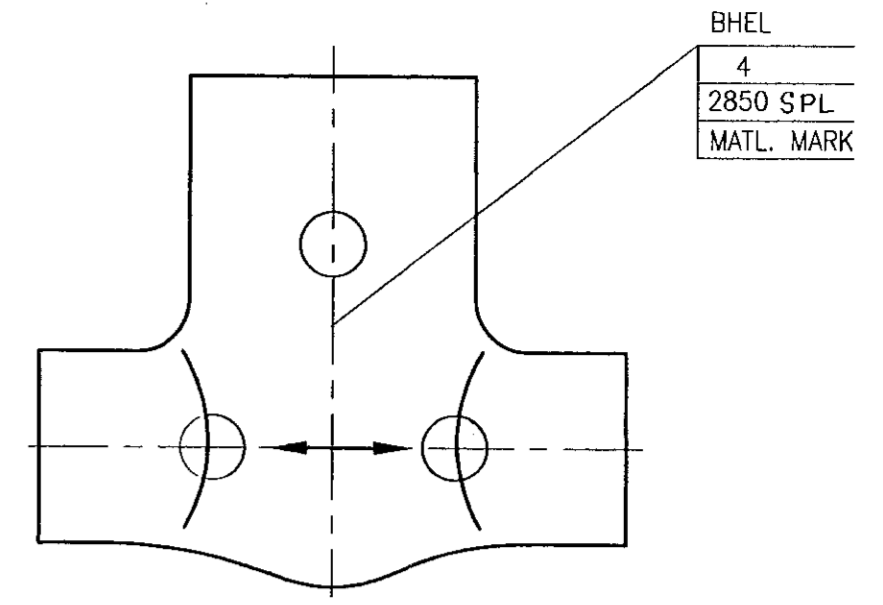
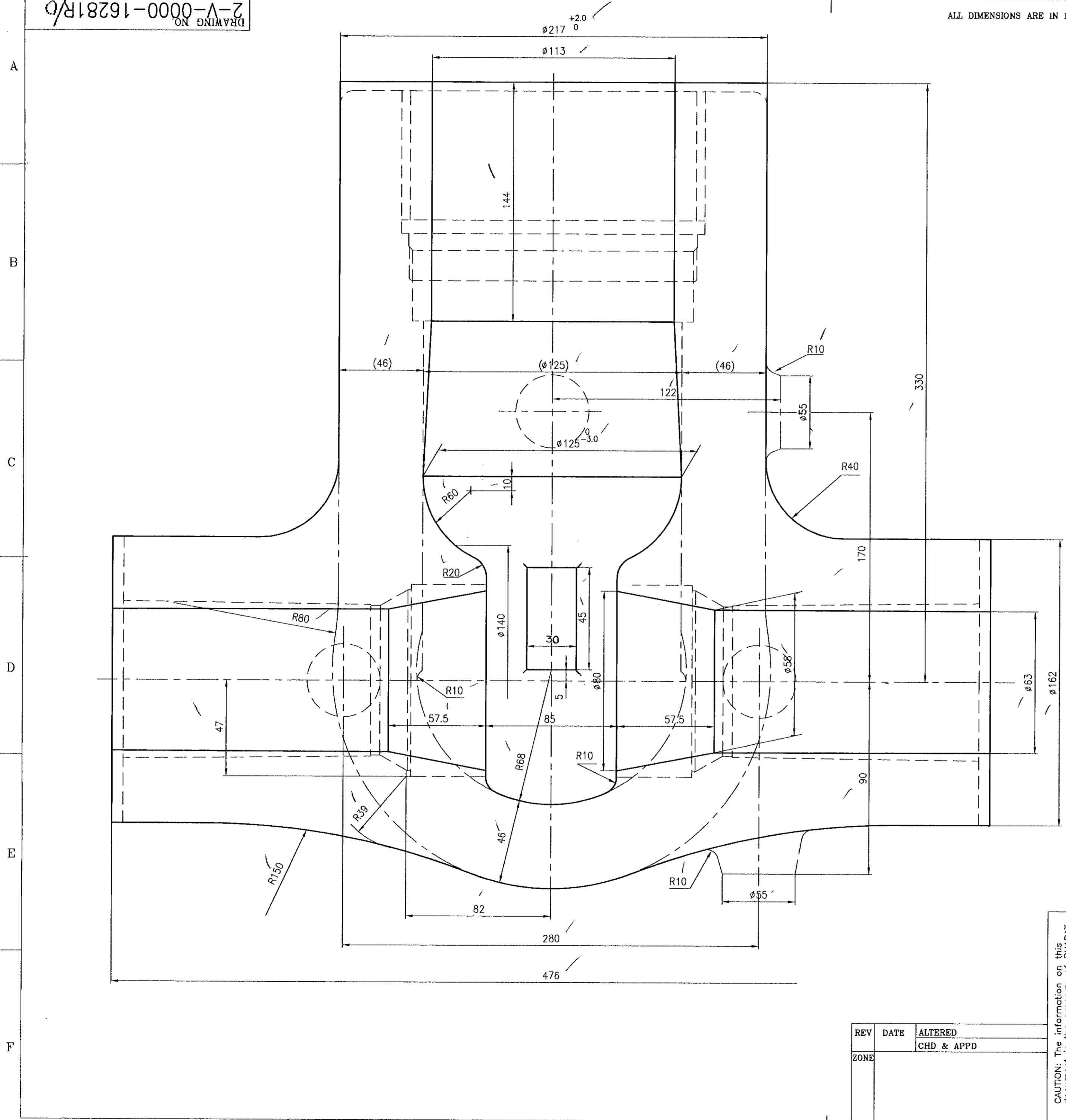
DRAWING NO. REFER TABLE: **2-V-0000-15228R**

A4728B-10 4/2500 CL.

Size A2

DRAWING NO. 2-V-0000-16281R/0

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



NOTES:

1. DOTTED LINES SHOWS FINISH MACHINED CONFIGURATION.
2. ALL THE CASTINGS ARE TO BE SUBJECTED RT/UT ON ALL CRITICAL LOCATIONS.
3. ALL EXTERIOR AND ACCESSIBLE INTERIOR SURFACE OF BODY SHALL BE MPI/LPI TESTED.
4. FOR ALL OTHER DETAILS LIKE DIMENSIONAL TOLERANCE, EMBOSSING ETC., REFER LATEST APPLICABLE TDC:
5. BYPASS VALVE PADDING SHALL BE PROVIDED ON ONE SIDE OF THE BODY.
6. PRESSURE RELIEVING PADDING SHALL BE PROVIDED ON ONE SIDE OF THE BODY.
7. EXCEPT EMBOSSING ALL OTHER DIMENSIONS ARE SAME AS PER DRG. No.3-V-0000-20003R/03

04	2-V-W784-16281R	A217 WC9, ATTEST, NT	921523980000	WC9	
03	2-V-W783-16281R	A217 WC6, ATTEST, NT	921523970000	WC6	
02	2-V-W782-16281R	A216 WCC, ATTEST, AN	921523960000	WCC	
01	2-V-W781-16281R	A216 WCB, ATTEST, AN	921523950000	WCB	
SL NO.	DRAWING NO.	MATERIAL SPECIFICATION	MATERIAL CODE	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

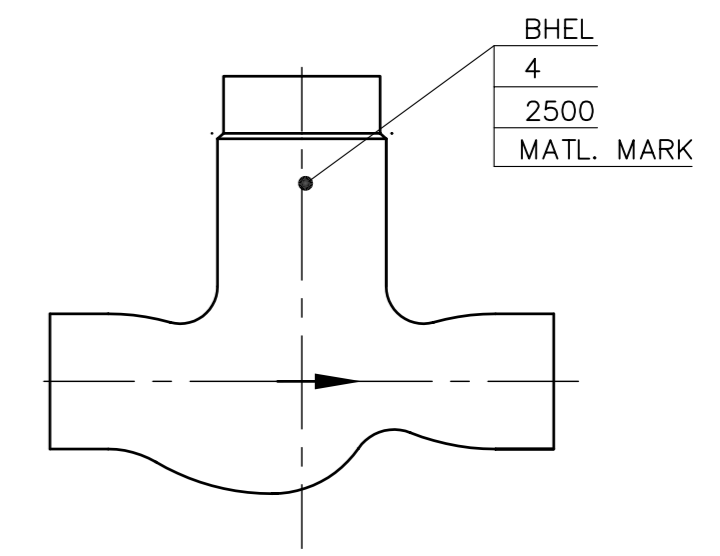
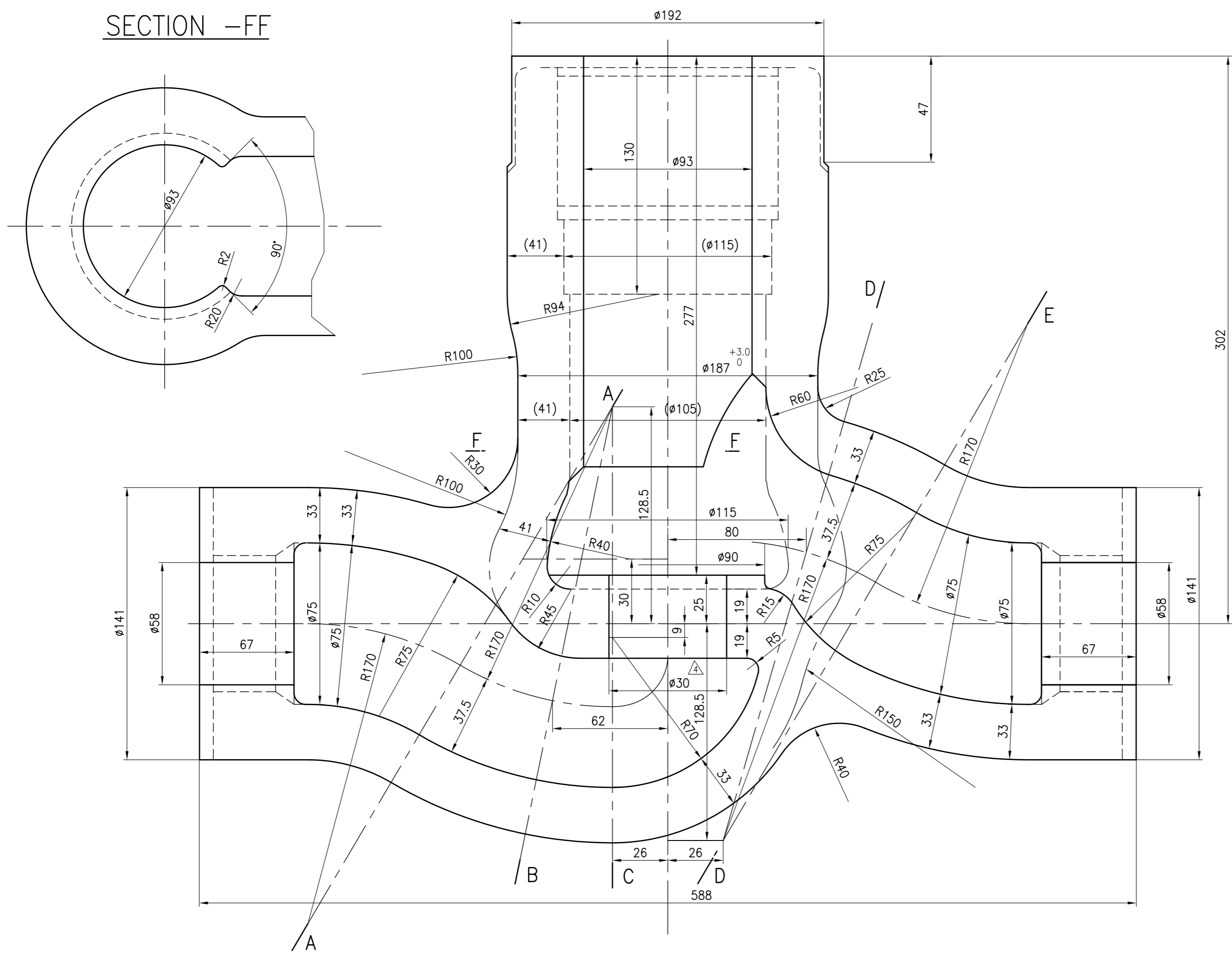
	<b>BHARAT HEAVY ELECTRICALS LTD.,</b> UNIT: HIGH PRESSURE BOILER PLANT. TIRUCHIRAPALLI-820014.		DRN V.BAIRAVAN	SIGN <i>(Signature)</i>	DATE 11.7.00	NO. OF VAR.
	365-120		CHD K.RAJASEKAR	APPD M.RAJAKUMAR	11.7.2K	12/2/2K
	DEPT V L	SCALE N T S	WEIGHT (KG.) 119	REFERENCE INFORMATION		

CODE 320	TITLE <b>BODY</b>	CARD CODE U 01	DRAWING NO. REF. TABLE <b>2-V-0000-16281R0</b>	REV
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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

SECTION -FF



NOTES: -

- FOR ALL OTHER DETAILS LIKE DIMENSIONAL TOLERANCE, EMBOSING, ETC REFER LATEST APPLICABLE QUALITY WORK INSTRUCTIONS.
- \*FOR THESE SPECIAL CLASS VALVE EMBOSING SHALL BE '2500 SPL'
- \*ALL THE SPECIAL CLASS CASTINGS ARE TO BE SUBJECTED RT/UT ON ALL CRITICAL LOCATIONS.
- \*ALL EXTERIOR AND ACCESSIBLE INTERIOR SURFACES OF BODY SHALL BE MPI/LPI TESTED.
- DOTTED LINES SHOWS FINISH MACHINED CONFIGURATION

REDRAWN WITH REV.4 ON 23.03.2K

SL No.	DRAWING No.	MATERIAL SPECN.	MATERIAL CODE	MATL. MARK
*08	2-V-G029-15003R/4	A217 WC9,NT, ATTEST	92 150 008 0000	WC9
*07	2-V-G028-15003R/4	A217 WC6,NT, ATTEST	92 150 007 0000	WC6
*06	2-V-G027-15003R/4	A216 WCC,AN, ATTEST	92 150 006 0000	WCC
*05	2-V-G019-15003R/4	A216 WCB,AN, ATTEST	92 150 005 0000	WCB
04	2-V-G013-15003R/4	A217 WC9,NT, ATTEST	92 150 004 0000	WC9
03	2-V-G012-15003R/4	A217 WC6,NT, ATTEST	92 150 003 0000	WC6
02	2-V-G011-15003R/4	A216 WCC,AN, ATTEST	92 150 002 0000	WCC
01	2-V-G003-15003R/4	A216 WCB,AN, ATTEST	92 150 001 0000	WCB

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. UNIT: HIGH PRESSURE BOILER PLANT. TIRUCHIRAPALLI-620014.		DRN V.BAIRAVAN	SIGN	DATE 23.03.2K	NO.OF VAR.
DEPT V L	SCALE NTS	WEIGHT (KG). 108	REFERENCE INFORMATIONS TOA REF:3-E25608(0327) CAD REF:T215003R		DRAWING NO. REFER TABLE 2-V-0000-15003R		REV 4
CODE 320	TITLE BODY CASTING		CARD CODE U 01	A3128B-10		4"/2500 CLASS	

REV	DATE	ALTERED/VB
4	23.3.2K	CHD & APPD KRS&MRK
ZONE SEAT BORE ø30 WAS ø38		
DCN No.TA1073		

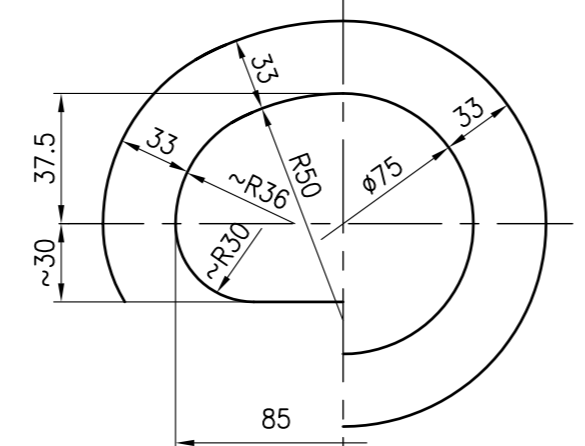
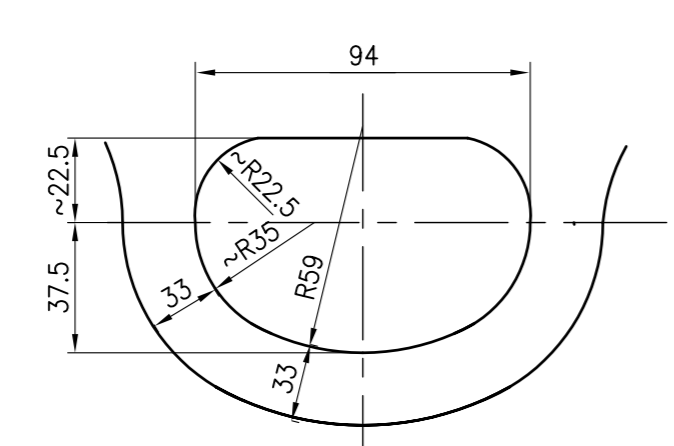
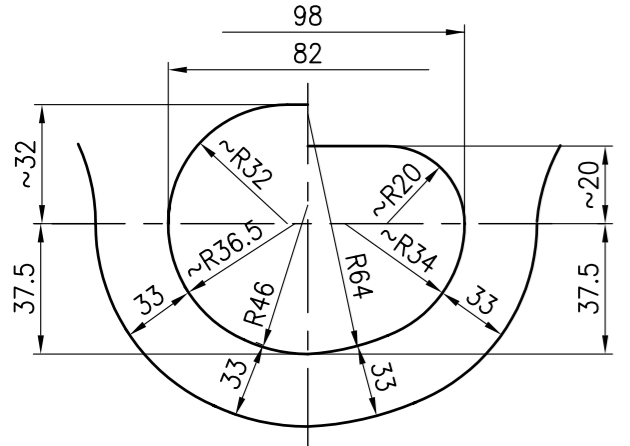
CAUTION: The information on this document is the property of BHARAT HEAVY ELECTRICALS LTD. It must not be used directly or indirectly in any way detrimental to the interest of the company.

SECTION-AA SECTION-AB

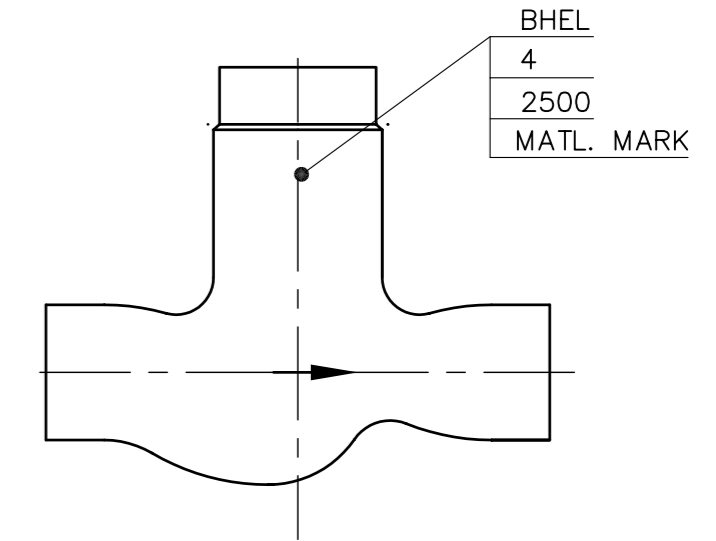
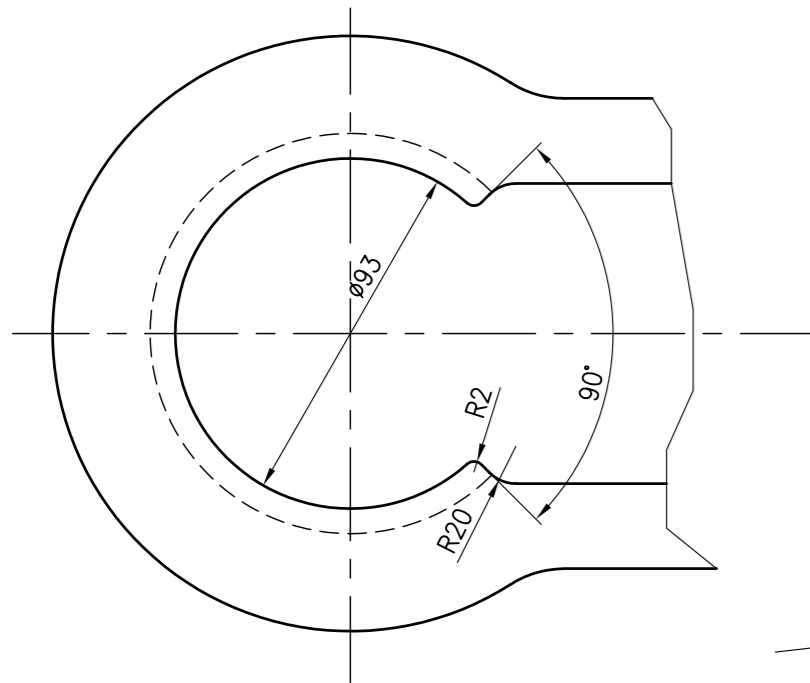
SECTION-AC

SECTION-DD

SECTION-DE

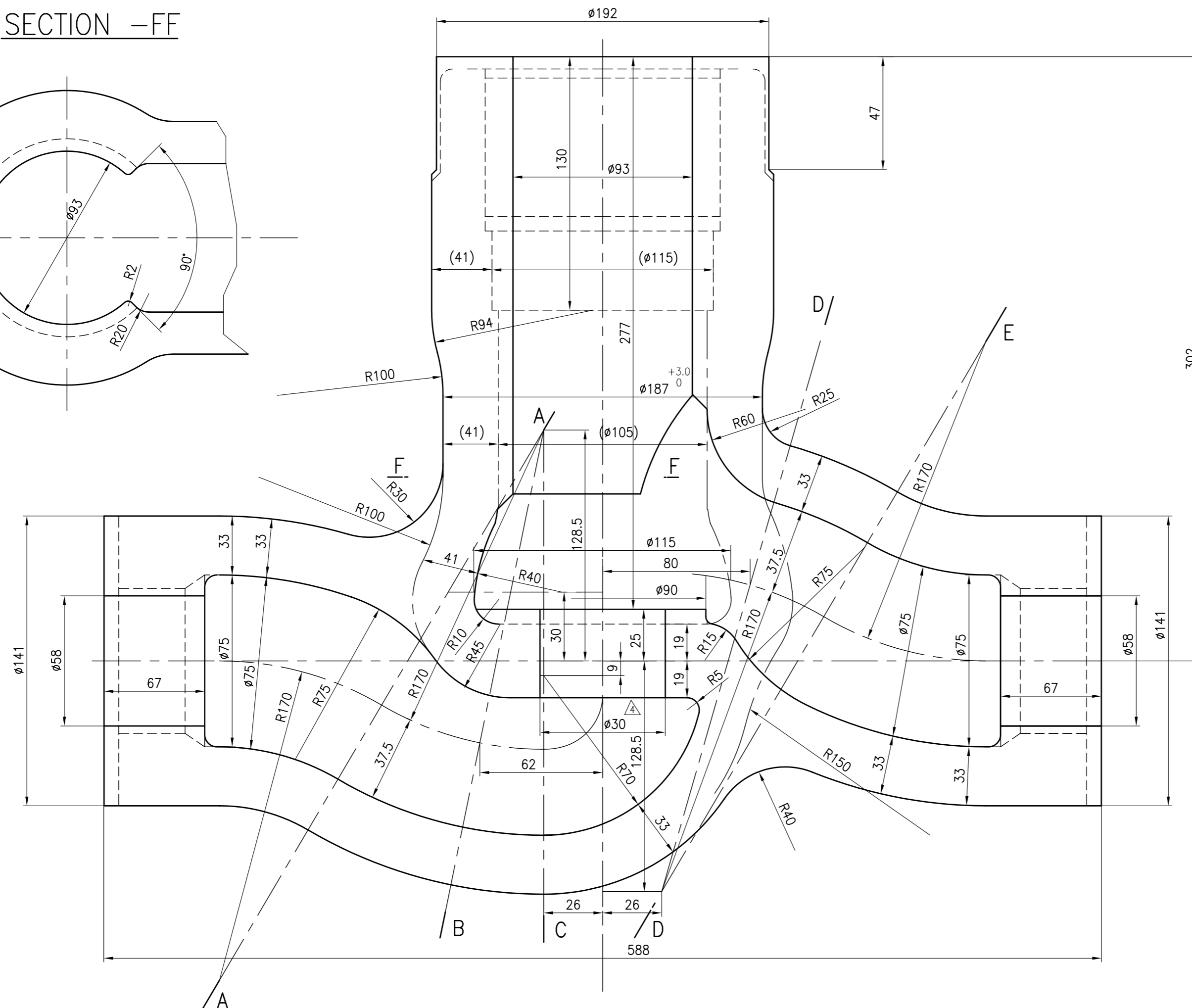


SECTION -FF



NOTES: -

- FOR ALL OTHER DETAILS LIKE DIMENSIONAL TOLERANCE, EMBOSING, ETC REFER LATEST APPLICABLE QUALITY WORK INSTRUCTIONS.
- \*FOR THESE SPECIAL CLASS VALVE EMBOSING SHALL BE '2500 SPL'
- \*ALL THE SPECIAL CLASS CASTINGS ARE TO BE SUBJECTED RT/UT ON ALL CRITICAL LOCATIONS.
- \*ALL EXTERIOR AND ACCESSIBLE INTERIOR SURFACES OF BODY SHALL BE MPI/LPI TESTED.
- DOTTED LINES SHOWS FINISH MACHINED CONFIGURATION



REDRAWN WITH REV.4 ON 23.03.2K

SL No.	DRAWING No.	MATERIAL SPECN.	MATERIAL CODE	MATL. MARK
*08	2-V-G029-15003R/4	A217 WC9,NT, ATTEST	92 150 008 0000	WC9
*07	2-V-G028-15003R/4	A217 WC6,NT, ATTEST	92 150 007 0000	WC6
*06	2-V-G027-15003R/4	A216 WCC,AN, ATTEST	92 150 006 0000	WCC
*05	2-V-G019-15003R/4	A216 WCB,AN, ATTEST	92 150 005 0000	WCB
04	2-V-G013-15003R/4	A217 WC9,NT, ATTEST	92 150 004 0000	WC9
03	2-V-G012-15003R/4	A217 WC6,NT, ATTEST	92 150 003 0000	WC6
02	2-V-G011-15003R/4	A216 WCC,AN, ATTEST	92 150 002 0000	WCC
01	2-V-G003-15003R/4	A216 WCB,AN, ATTEST	92 150 001 0000	WCB

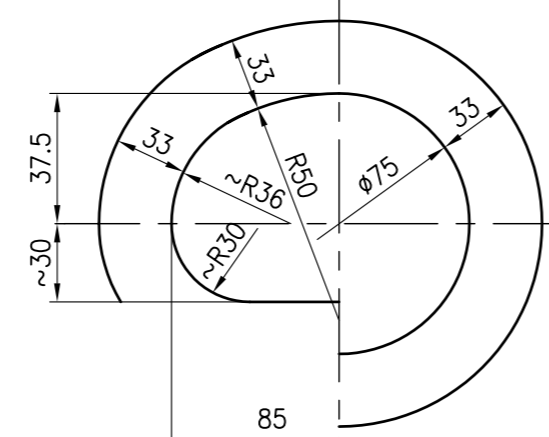
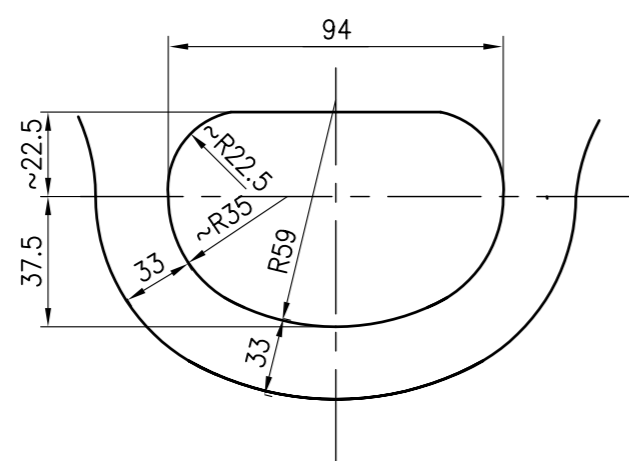
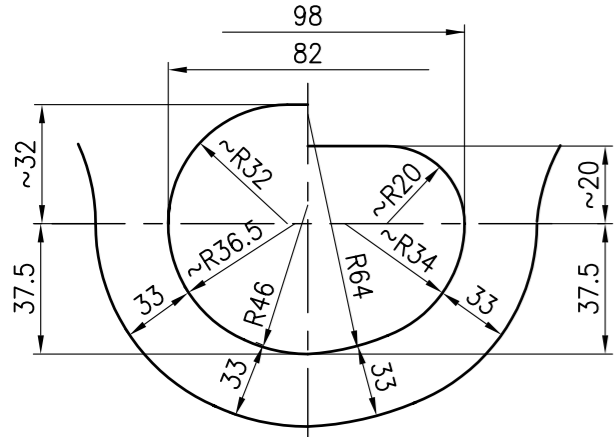
No OFF	DESCRIPTION	MATL CODE	MATL SPECN	HEAT TREATMENT	SCRAP SORT	NET WT (kg)	GROSS WT (kg)	DRAWING No	ITEM No

SECTION-AA SECTION-AB

SECTION-AC

SECTION-DD

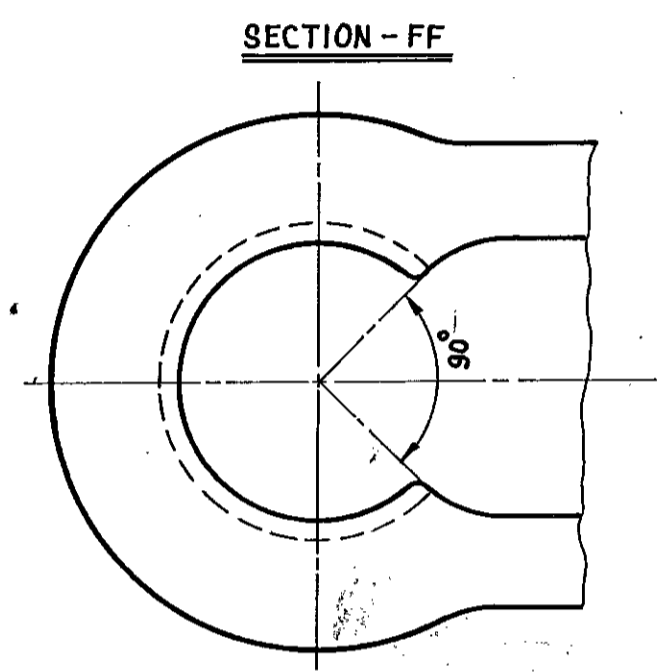
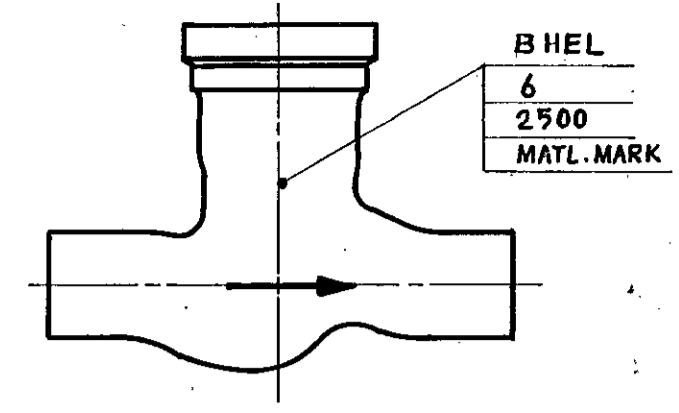
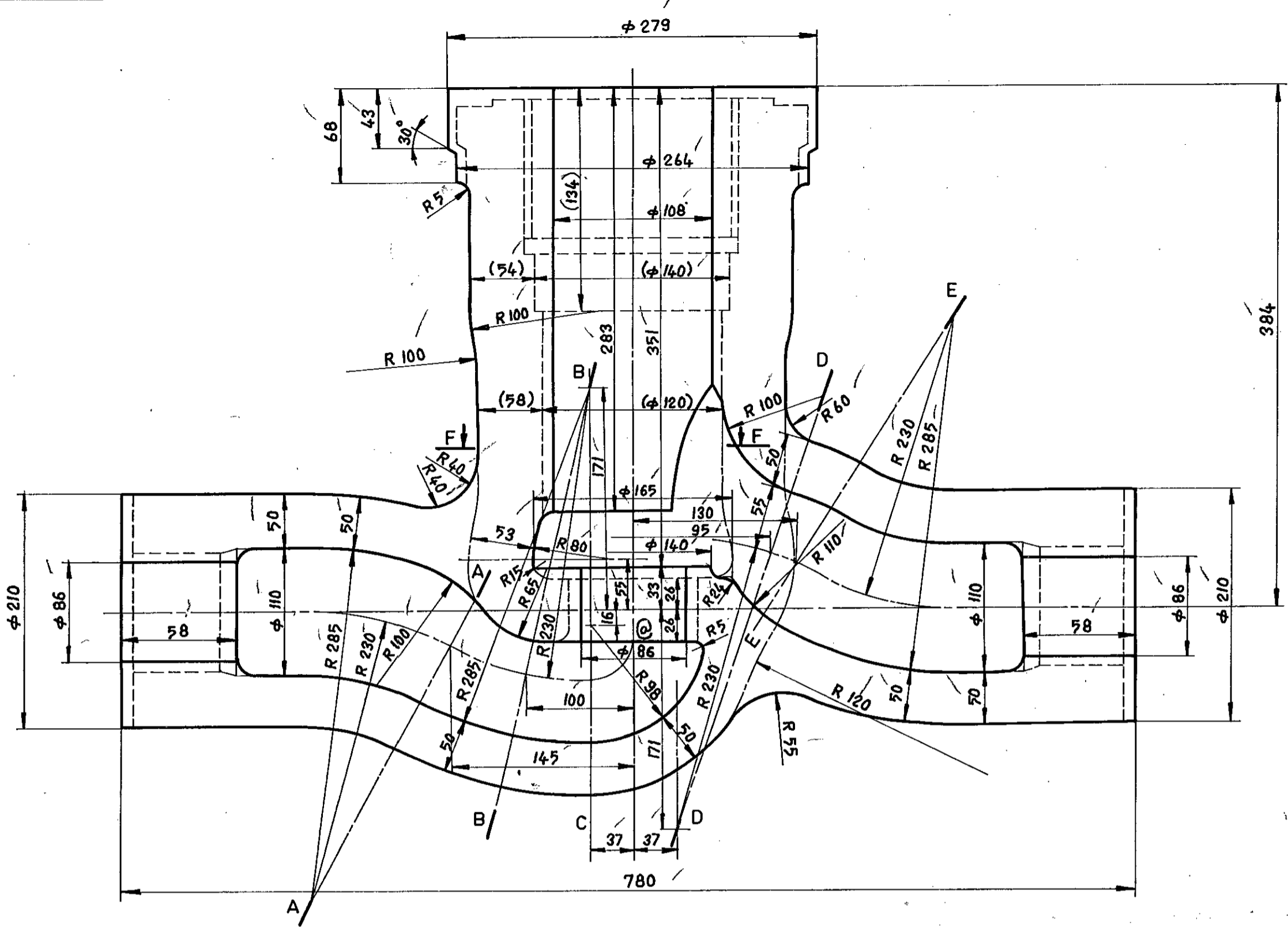
SECTION-DE



REV	DATE	ALTERED/VB
4	23.3.2K	CHD & APPD KRS&MRK
ZONE	SEAT BORE 30 WAS 38	
DCN No.TA1073		

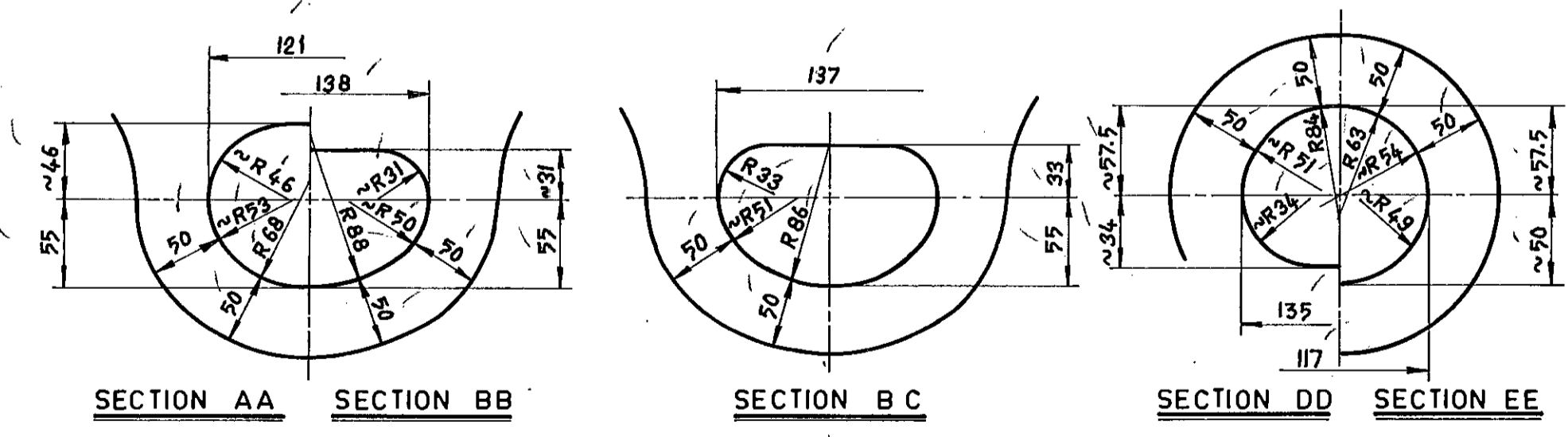
CAUTION: The information on this document is the property of BHARAT HEAVY ELECTRICALS LTD. It must not be used directly or indirectly in any way detrimental to the interest of the company.

TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT		DRN	NAME	SIGN	DATE	NO. OF VAR.
Bharat Heavy Electricals Ltd. Unit: High Pressure Boiler Plant. Tiruchirappalli-620014.		CHD	V.BAIRAVAN		23.03.2K	
		APPD	K.RAJASEKARAN		23.03.2K	
			M.RAJAKUMAR		23.03.2K	
DEPT	V L	SCALE	WEIGHT (KG)	REFERENCE INFORMATIONS		
365-120		NTS	108	TOA REF:3-E25608(0327) CAD REF:T215003R		
TITLE	CARD CODE	DRAWING NO. REFER TABLE	REV			
BODY CASTING	U 01	2-V-0000-15003R	4			



**NOTE**

- ALL THE SPECIAL CLASS CASTINGS ARE TO BE SUBJECTED RT/UT ON ALL CRITICAL LOCATIONS.
- ALL EXTERIOR AND ACCESSIBLE INTERIOR SURFACES OF BODY SHALL BE MPI/LPI TESTED.
- DOTTED LINES SHOWS FINISH MACHINED CONFIGURATION.
- FOR ALL OTHER DETAILS LIKE DIMENSIONAL TOLERANCE, EMBOSING, PUNCHING DETAILS AND HYD. TEST PRESSURE ETC. REFER LATEST APPLICABLE T.D.C.
- FOR THESE SPECIAL CLASS VALVES EMBOSING SHALL BE 2500 SPL.



SL.No	DRAWING No.	MATERIAL SPECN.	MATL. CODE	MATL. MARK
8 *	2-V-G026-15004 R/2	A 217 WC9, ATTEST, NT	92 150 016	WC9
7 *	2-V-G025-15004 R/2	A 217 WC6, ATTEST, NT	92 150 015	WC6
6 *	2-V-G024-15004 R/2	A 216 WCC, ATTEST, AN	92 150 014	WCC
5 *	2-V-G018-15004 R/2	A 216 WCB, ATTEST, AN	92 150 013	WCB
4	2-V-G010-15004 R/2	A 217 WC9, ATTEST, NT	92 150 012	WC9
3	2-V-G009-15004 R/2	A 217 WC6, ATTEST, NT	92 150 011	WC6
2	2-V-G008-15004 R/2	A 216 WCC, ATTEST, AN	92 150 010	WCC
1	2-V-G002-15004 R/2	A 216 WCB, ATTEST, AN	92 150 009	WCB

REV.	DATE	ALTD. SPR	CHED. MRK	REV.	DATE	ALTERED	CHECKED
02	29.12.94	SPR	WV	01	07-02-86	M.R.K. M.W.	V.B. N.M.

NOTES MODIFIED IN LINE WITH LATEST T.D.C.

ZONE @

φ 96 CHANGED TO φ 86 TO UNIFY WITH REG. NEEDLE VALVE BODY DRG. No. 3-E 28268 (1473)

DCN NO: TA 0441

**BHARAT HEAVY ELECTRICALS LTD.**  
BOILER PLANT UNIT, TIRUCHIRAPALLI-620 014

DEPT VL 320 SCALE NTS WEIGHT (KG) 270.0 REF. 3-E 26103 (0237) 3-E 28268 (1473)

**BODY**  
3428 B-15 & A 312 8B-15 63/2500 CLASS

DRAWN K.N.C. 19/84  
CHECKED M.R.K. M.W. 19/84  
APPROVED V.B. 19/84

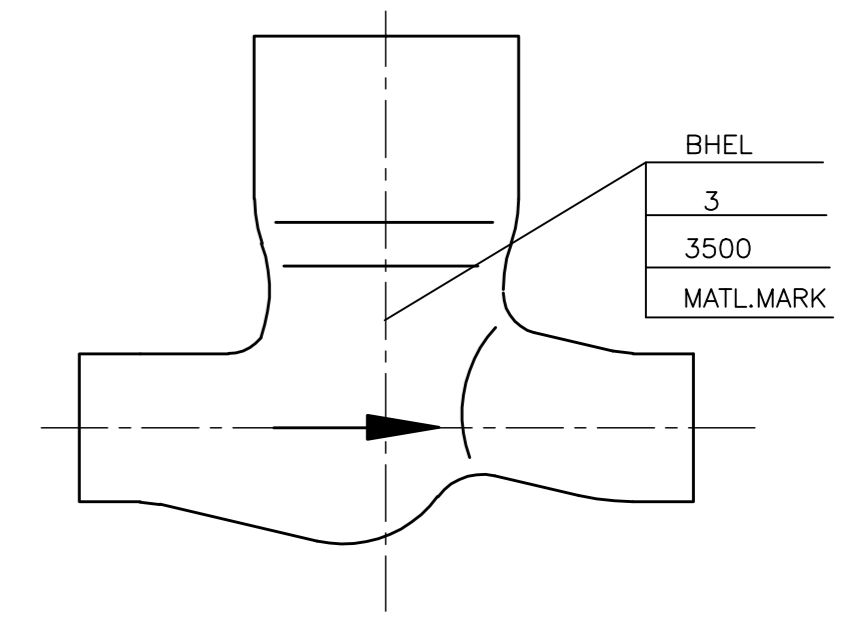
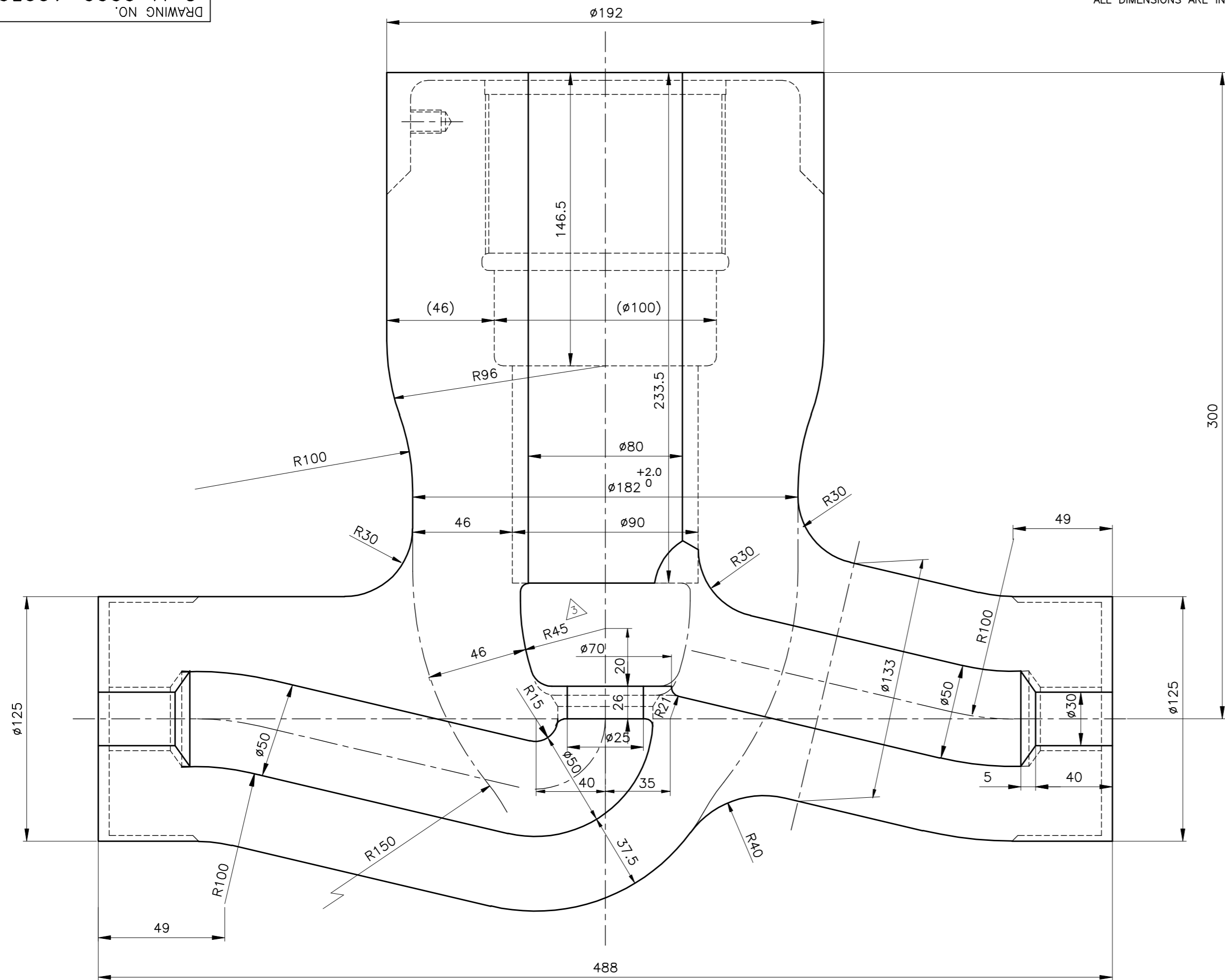
DIMENSIONS TO BE CONTROLLED WITHIN LIMITS AS SHOWN. MACHINING TOLERANCE ±0.25 UNLESS OTHERWISE SHOWN NON-MACHINING TOLERANCE ±

CARD CODE U01

DRAWING NO. 2-V-0000-15004 R/2

DRAWING NO. 2-V-0000-16650R/3

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



NOTES:-

1. DOTTED LINES SHOWS FINISH MACHINED CONFIGURATION.
2. FOR THE SPECIAL CLASS VALVE EMBOSING SHALL BE '3500 SPL.'
3. FOR ALL OTHER DETAILS LIKE DIMENSIONAL TOLERANCE, EMBOSING, PUNCHING DETAILS AND HYDRAULIC TEST PRESSURE ETC.REFER LATEST APPLICABLE QUALITY WORK INSTRUCTION
4. THE SPECIAL CLASS CASTING IS TO BE SUBJECTED RT/UT ON ALL CRITICAL LOCATIONS.
5. ALL EXTERIOR AND ACCESSIBLE INTERIOR SURFACES OF THE SPECIAL CLASS BODY SHALL BE MPI/LPI TESTED.
6. \*MARKED TYPE IS SPECIAL CLASS RATING.
7. EXCEPT DIMENSIONS 146.5,233.5 & 300 ALL OTHER DIMENSIONS ARE SAME AS PER THE DRAWING No.2-V-0000-15526R/3

REV	DATE	ALTERED VB	REV	DATE	ALTERED VB	REV	DATE	ALTERED : VB
3	02.11.11	CHD & APPD SSK & KRS	2	09.07.10	CHD & APPD SSK & KRS	01	06.02.10	CHD & APPD : SSK&KRS
ZONE DIMENSION R45 WAS R42.5			ZONE NOTE.07 INCLUDED. WT.103.5 WAS 157			ZONE S.NO:03 INCLUDED		
DCP No.801247			DCP No.801069					

03	2-V-R647-16650R/2	921533240000	A217 WC9, ATTEST,NT	WC9
*02	2-V-R460-16650R/2	921530510000	A217 C12A, ATTEST,NT	C12A
01	2-V-R459-16650R/2	921530500000	A217 C12A, ATTEST,NT	C12A
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

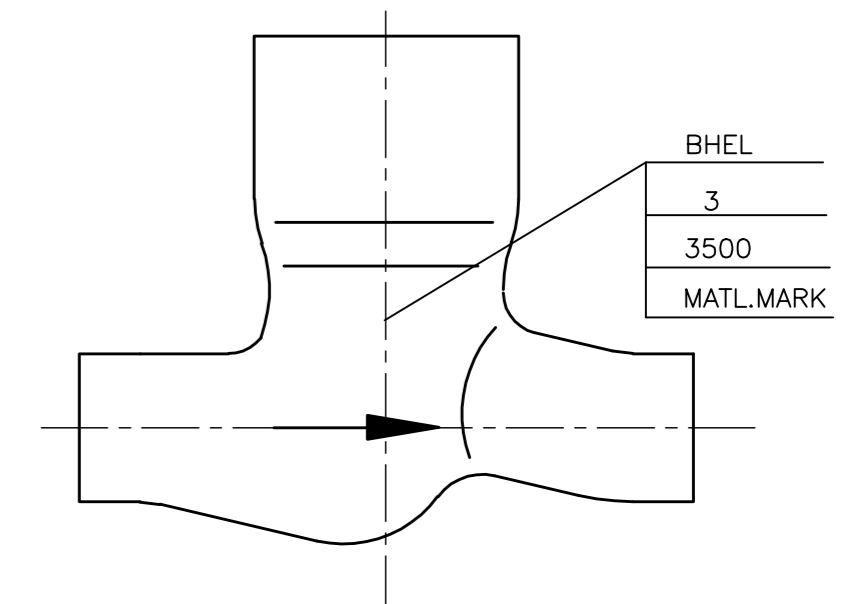
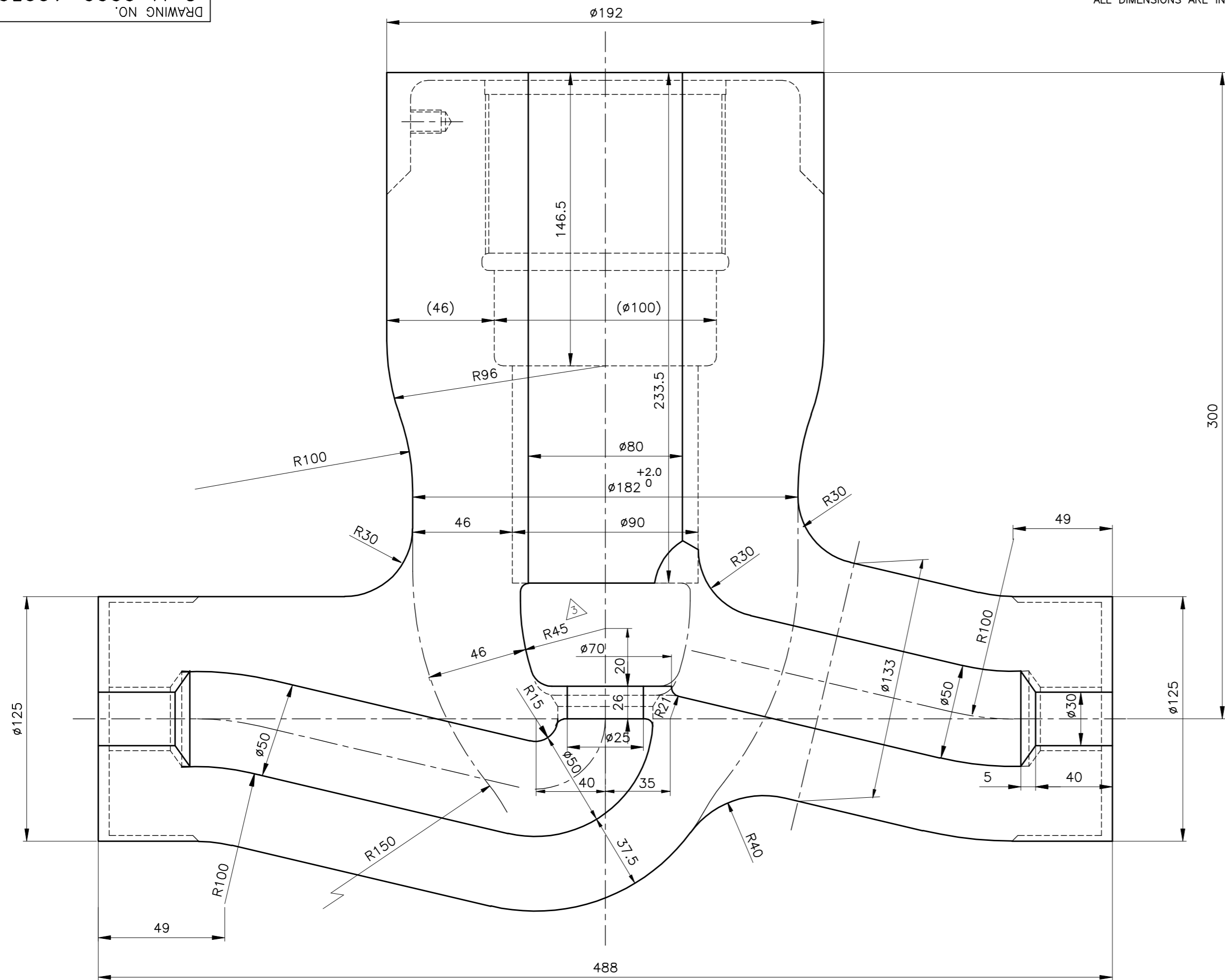
	<b>BHARAT HEAVY ELECTRICALS LTD.,</b> UNIT: HIGH PRESSURE BOILER PLANT. TIRUCHIRAPALLI -620014.		DRN	V.BAIRAVAN	SIGN	DATE	22.11.06	NO.OF	VAR.
	CHD	K.RAJASEKARAN				22.11.06			
	APPD	M.RAJAKUMAR				22.11.06			

DEPT	VL	SCALE	WEIGHT (KG)	REFERENCE INFORMATIONS	NO.OF
320		N.T.S	103.5		ITEMS
TITLE				CARD CODE	REV
BODY (CASTING)				U 01	3
(3"-3500 CL)				DRAWING NO.	2-V-0000-16650R

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.

DRAWING NO. 2-V-0000-16650R/3

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



NOTES:-

1. DOTTED LINES SHOWS FINISH MACHINED CONFIGURATION.
2. FOR THE SPECIAL CLASS VALVE EMBOSING SHALL BE '3500 SPL.'
3. FOR ALL OTHER DETAILS LIKE DIMENSIONAL TOLERANCE, EMBOSING, PUNCHING DETAILS AND HYDRAULIC TEST PRESSURE ETC.REFER LATEST APPLICABLE QUALITY WORK INSTRUCTION
4. THE SPECIAL CLASS CASTING IS TO BE SUBJECTED RT/UT ON ALL CRITICAL LOCATIONS.
5. ALL EXTERIOR AND ACCESSIBLE INTERIOR SURFACES OF THE SPECIAL CLASS BODY SHALL BE MPI/LPI TESTED.
6. \*MARKED TYPE IS SPECIAL CLASS RATING.
7. EXCEPT DIMENSIONS 146.5,233.5 & 300 ALL OTHER DIMENSIONS ARE SAME AS PER THE DRAWING No.2-V-0000-15526R/3

REV	DATE	ALTERED VB	REV	DATE	ALTERED VB	REV	DATE	ALTERED : VB
3	02.11.11	CHD & APPD SSK & KRS	2	09.07.10	CHD & APPD SSK & KRS	01	06.02.10	CHD & APPD : SSK&KRS
ZONE DIMENSION R45 WAS R42.5			ZONE NOTE.07 INCLUDED. WT.103.5 WAS 157			ZONE S.NO:03 INCLUDED		
DCP No.801247			DCP No.801069					

03	2-V-R647-16650R/2	921533240000	A217 WC9, ATTEST,NT	WC9
*02	2-V-R460-16650R/2	921530510000	A217 C12A, ATTEST,NT	C12A
01	2-V-R459-16650R/2	921530500000	A217 C12A, ATTEST,NT	C12A
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

DEPT	VL	SCALE	WEIGHT (KG)	REFERENCE INFORMATION	NO.OF ITEMS
365-120		N.T.S	103.5		

DRN	NAME	SIGN	DATE	NO.OF VAR.
CHD	V.BAIRAVAN		22.11.06	
APPD	K.RAJASEKARAN		22.11.06	
	M.RAJAKUMAR		22.11.06	

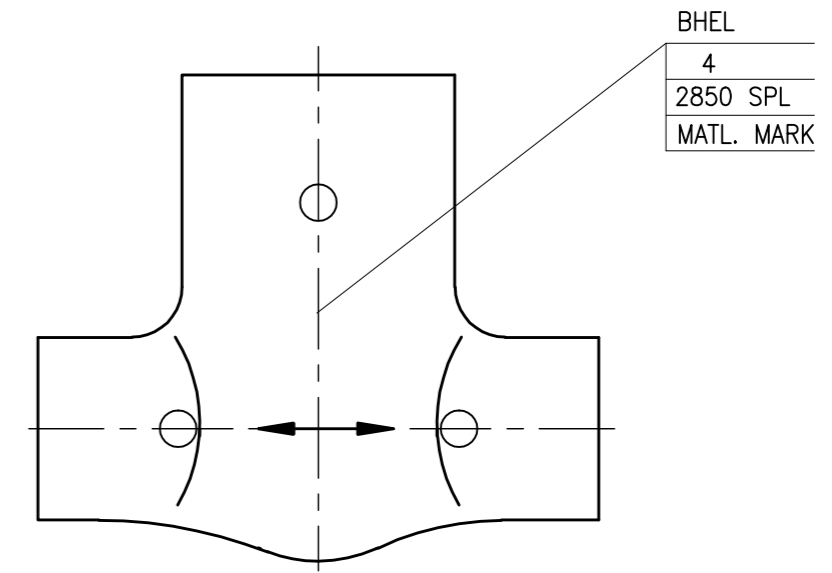
CAUTION: The information on this document is the property of BHARAT HEAVY ELECTRICALS LTD. It must not be used directly or indirectly in any way detrimental to the interest of the company.

DEPT	VL	SCALE	WEIGHT (KG)	REFERENCE INFORMATION	NO.OF ITEMS
365-120		N.T.S	103.5		

TITLE	CARD CODE	DRAWING NO.	REV
BODY (CASTING) (3"-3500 CL)	U 01	2-V-0000-16650R	3

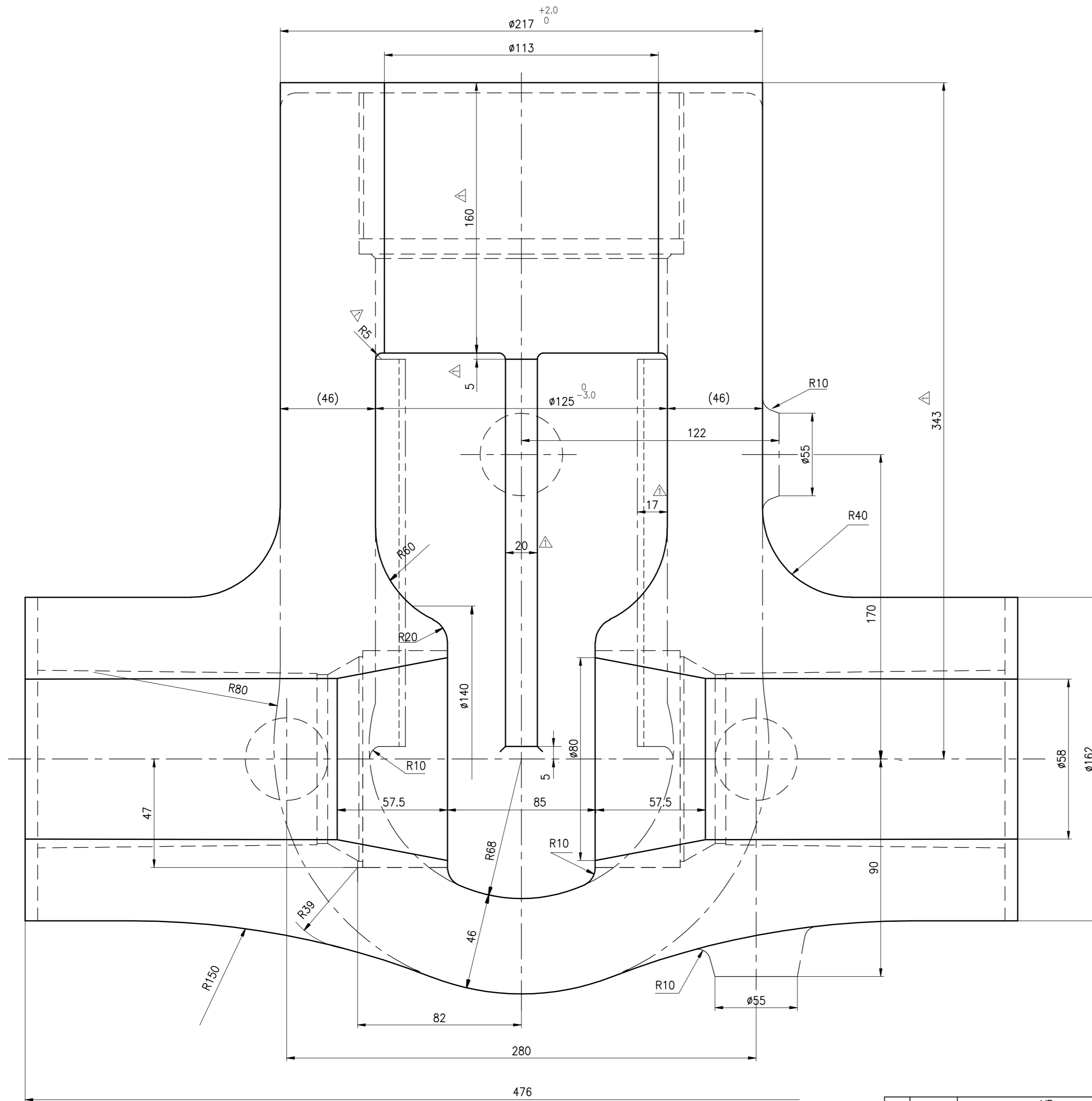
DRAWING NO. 2-V-0000-16941R/1

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



NOTES:

1. DOTTED LINES SHOWS FINISH MACHINED CONFIGURATION.
2. ALL THE CASTINGS ARE TO BE SUBJECTED RT/UT ON ALL CRITICAL LOCATIONS.
3. ALL THE EXTERIOR AND ACCESSIBLE INTERIOR SURFACE OF BODY SHALL BE MPI/LPI TESTED.
4. FOR ALL OTHER DETAILS LIKE DIMENSIONAL TOLERANCE, EMBOSING ETC., REFER LATEST APPLICABLE QUALITY WORK INSTRUCTION
5. BYPASS VALVE PADDING SHALL BE PROVIDED ON ONE SIDE OF THE BODY.
6. PRESSURE RELIEVING PADDING SHALL BE PROVIDED ON ONE SIDE OF THE BODY.
7. EXCEPT EMBOSING, INLET ID, OUTLET ID AND HEIGHT, ALL OTHER DIMENSIONS ARE SAME AS PER DRAWING No.3-V-0000-20003R/03 OR 2-V-0000-16281R.



02	2-V-WB73-16941R	A217 WC9, ATTEST, NT	921533190000	WC9	
01	2-V-WB71-16941R/1	A217 C12A, ATTEST, NT	921533020000	C12A	
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

TYPE OF PRODUCT  
OR NAME OF  
CUSTOMER/PROJECT

	BHARAT HEAVY ELECTRICALS LTD.,	DRN	V.BAIRAVAN	SIGN	DATE	NO.OF VAR.
	UNIT: HIGH PRESSURE BOILER PLANT.	CHD	S.SATHEES		13.11.09	
	365-120	APPD	K.RAJASEKARAN		13.11.09	

DEPT	V L	SCALE	WEIGHT (KG).	REFERENCE INFORMATIONS	NO. OF ITEMS
CODE	320	N T S	119	2-V-0000-16941R-1-0	

TITLE	CARD CODE	DRAWING NO.	REV
BODY	U 01	2-V-0000-16941R	1

REV	DATE	ALTERED	
1	09.01.10	CHD & APPD	: SSK&KRS
ZONE	DIMENSIONS 30,10 & 45 DELETED. GUIDE BAR DIMENSIONS 17,20 & R5 INCLUDED. DIMENSION 160 WAS 144. DIMENSION 343 WAS 330 SL. No.02 INCLUDED. DCP No.801018		

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.

4"/2850 SPL. CLASS

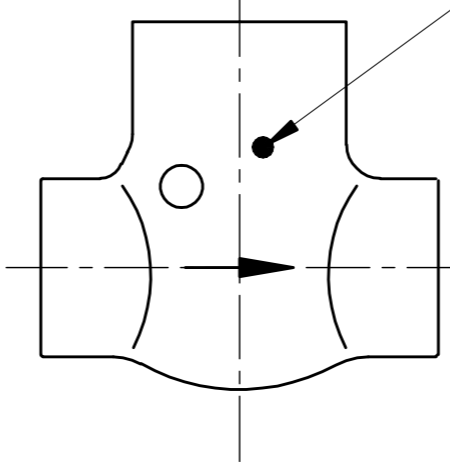
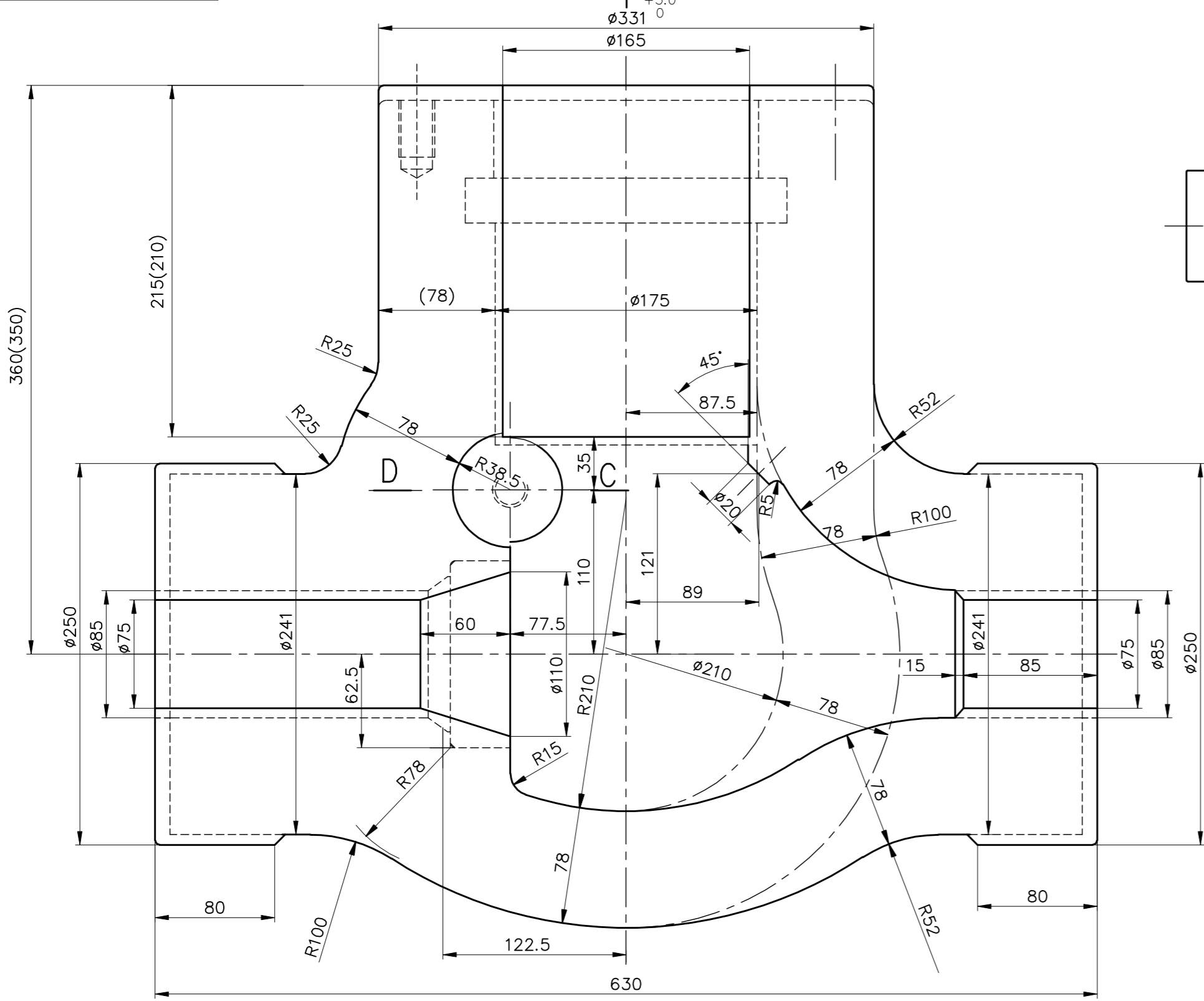
DRAWING NO. 2-V-0000-16868R

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

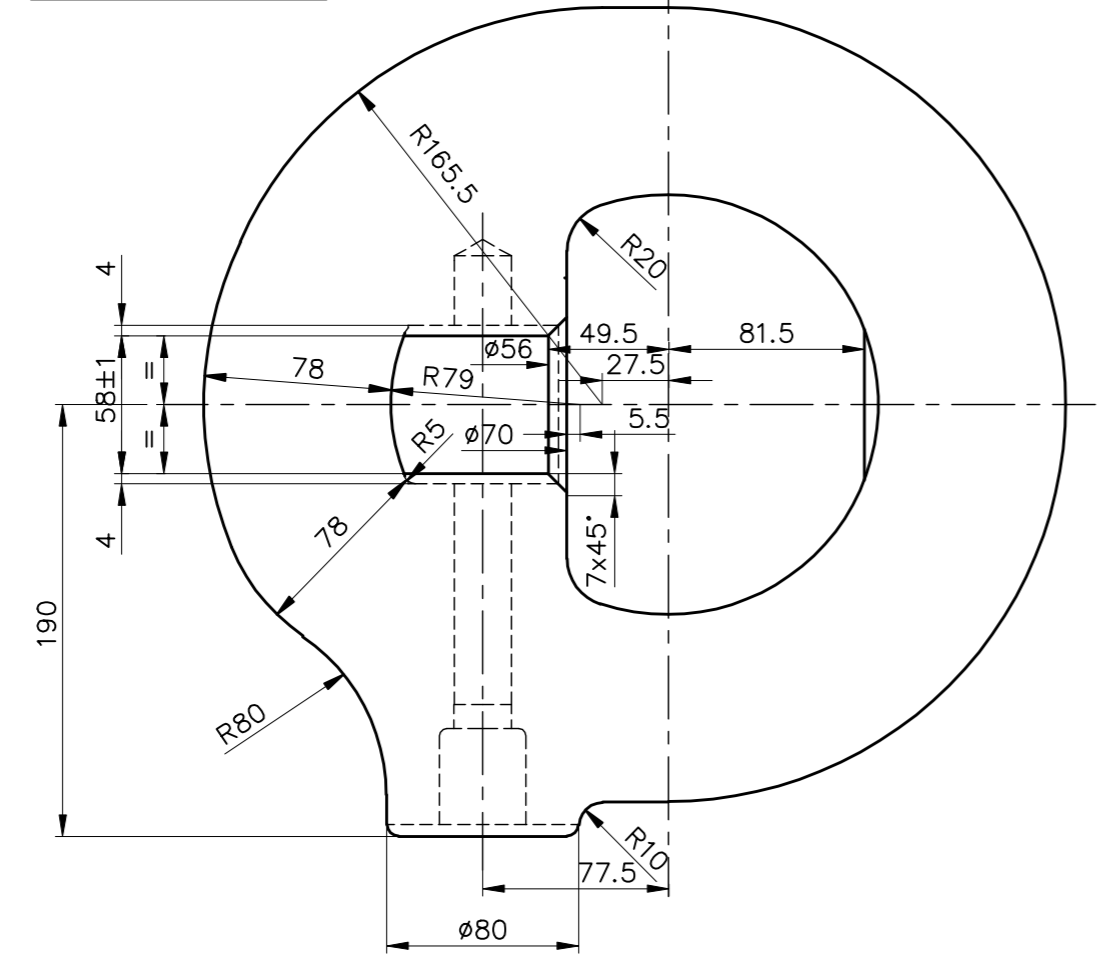
BHEL  
6  
3500  
MATL. MARK

NOTES: -

1. DOTTED LINES SHOWS FINISH MACHINED CONFIGURATION
2. FOR ALL OTHER DETAILS LIKE DIMENSIONAL TOLERANCE, EMBOSSING, ETC REFER LATEST APPLICABLE QUALITY WORK INSTRUCTIONS.
3. \*ALL THE SPECIAL CLASS CASTING ARE TO BE SUBJECTED RT/UT ON ALL CRITICAL LOCATIONS.
4. \*ALL EXTERIOR AND ACCESSIBLE INTERIOR SURFACES OF BODY SHALL BE MPI/LPI TESTED.
5. \*FOR THESE SPECIAL CLASS VALVES EMBOSSING SHALL BE '3500 SPL'.



SECTION ABCD



*6	2-V-L413-16868R	A217 C12A,ATTEST,NT	921531530000		C12A
*5	2-V-L418-16868R	A217 WC9,ATTEST,NT	921531950000		WC9
*4	2-V-L417-16868R	A216 WCC,ATTEST,AN	921531940000		WCC
3	2-V-L416-16868R	A217 C12A,ATTEST,NT	921531930000		C12A
2	2-V-L415-16868R	A217 WC9,ATTEST,NT	921531920000		WC9
1	2-V-L414-16868R	A216 WCC,ATTEST,AN	921531910000		WCC
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
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TYPE OF PRODUCT		OR NAME OF		CUSTOMER/PROJECT	
BHEL		BHARAT HEAVY ELECTRICALS LTD.,		DRN V.BAIRAVAN	
365-120		UNIT: HIGH PRESSURE BOILER PLANT.		CHD K.RAJASEKARAN	
		TIRUCHIRAPALLI-620014.		APPD M.RAJAKUMAR	
DEPT V L		SCALE NTS		WEIGHT (KG) 355	
CODE 320		REFERENCE INFORMATION		NO. OF ITEMS	
TITLE		DRAWING NO.		REV	
BODY (CASTING)		2-V-0000-16868R		U 01	
6"/3500CLASS		REFER TABLE			

REV	DATE	ALTERED
		CHD & APPD
ZONE		

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