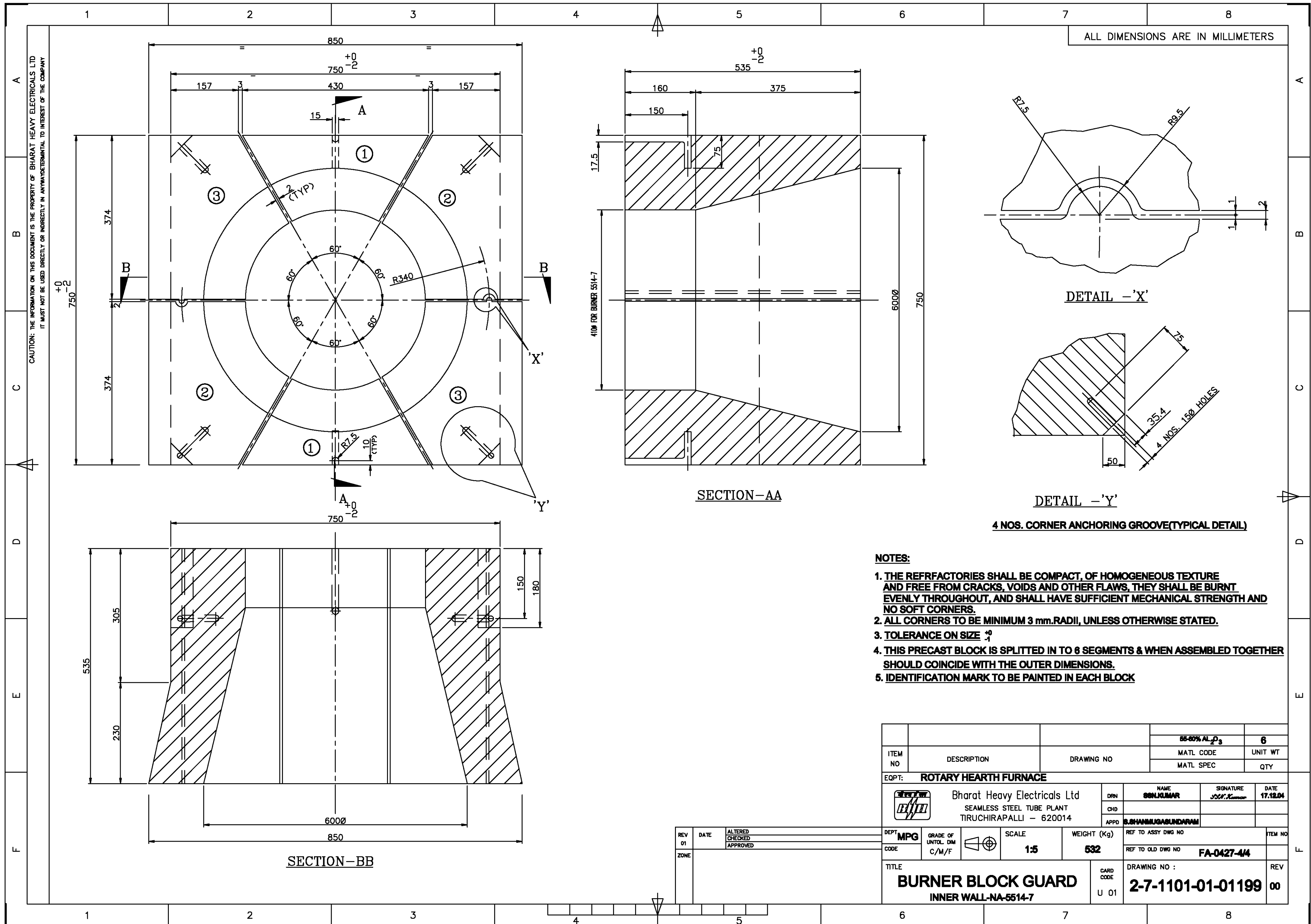
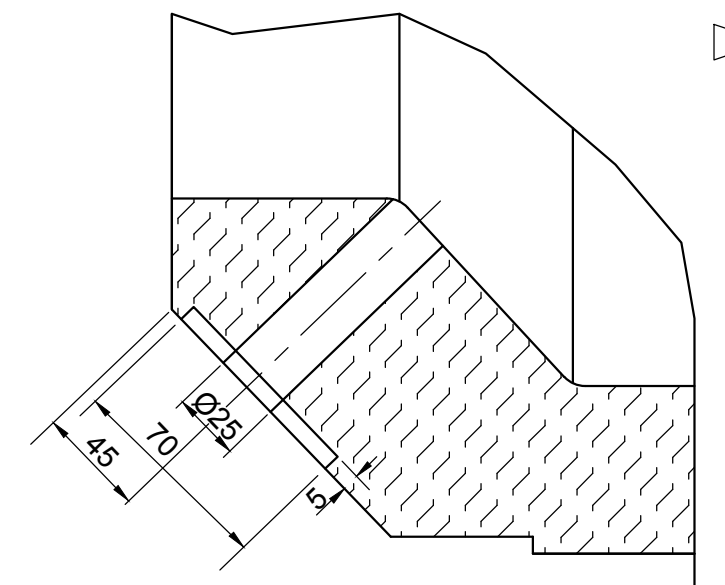
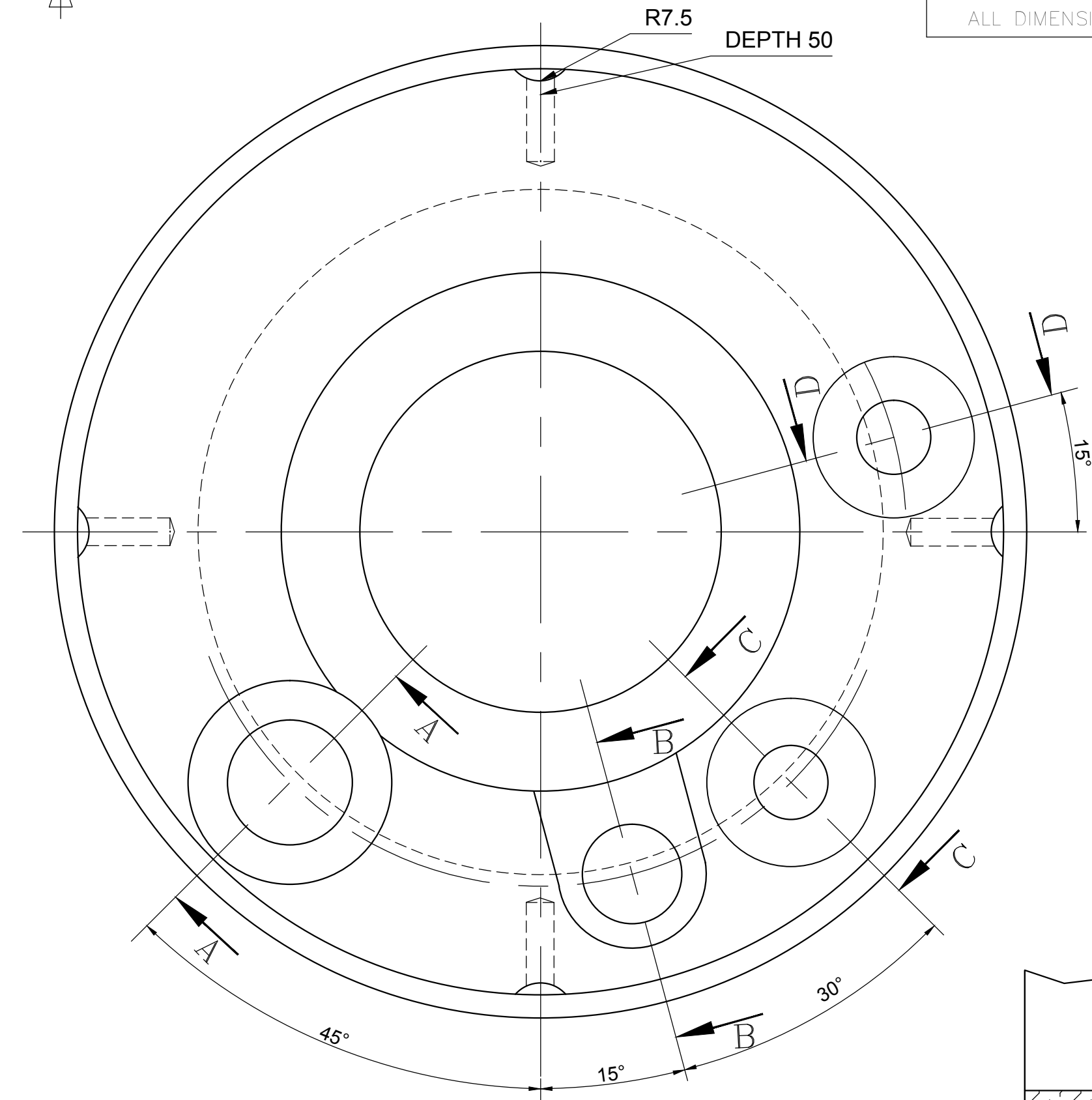
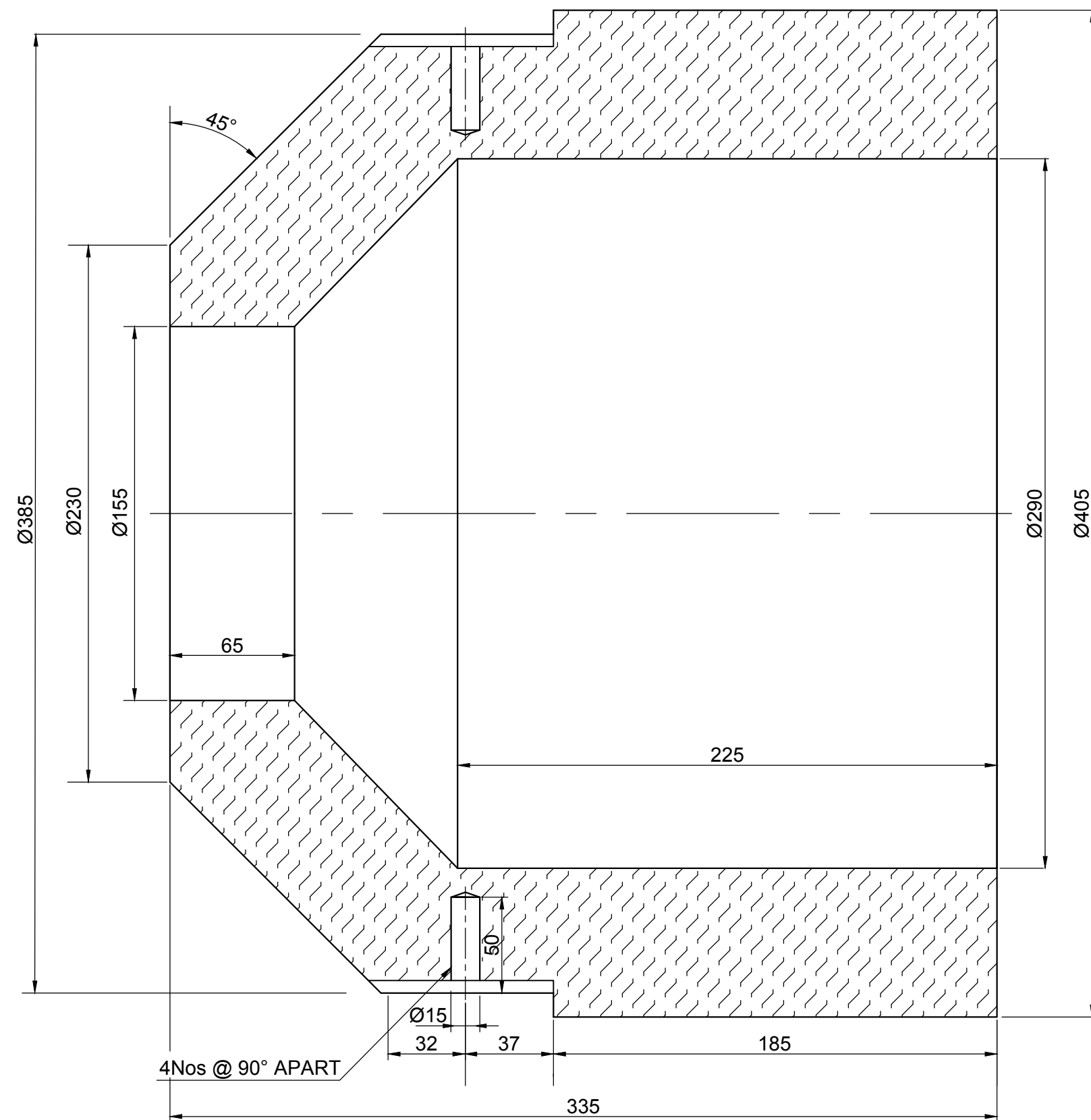


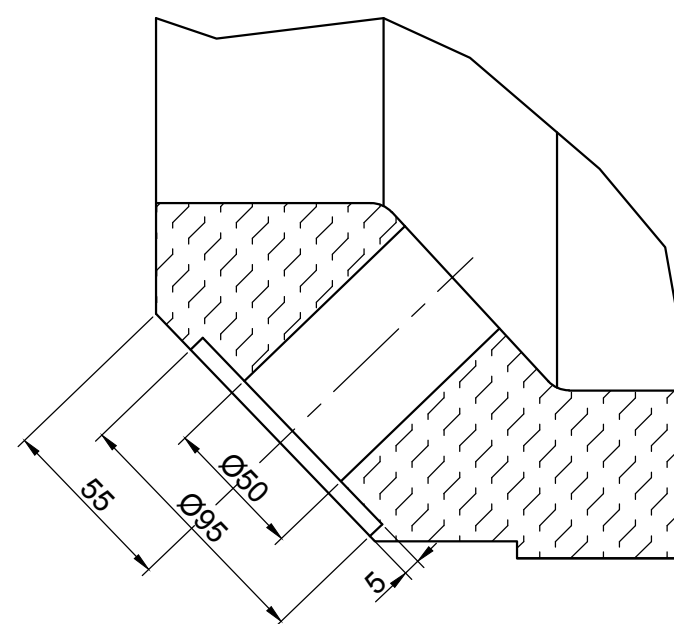




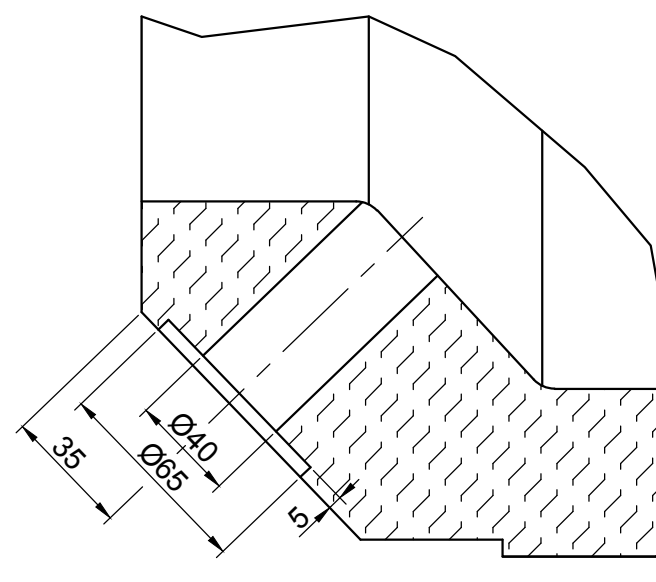
SECTION - DD

MATERIAL SPECIFICATION:

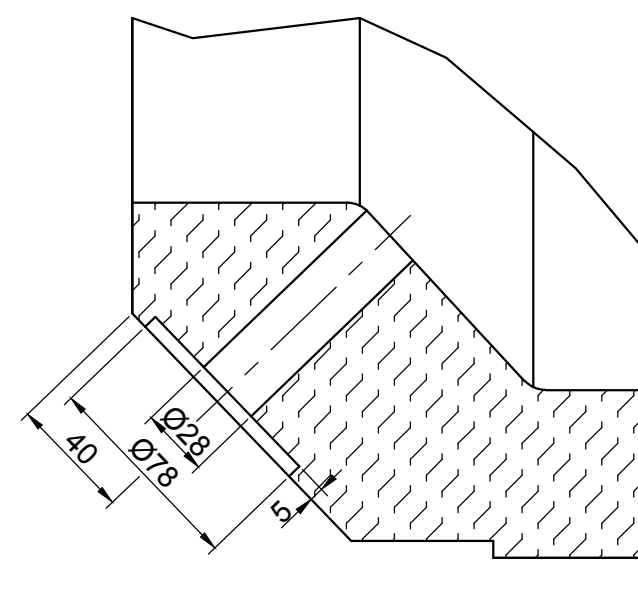
Al 2O3 % min	: 58-60
Fe 2O3 % max	: 1.5
CCS Kg/sq.cm. min	:250
PCE SK min	:36
RUL ta min	:1530-1570
BD gm/cc min	: 2.4
AP % max	: 24
PLC % max	: +/- 0.2 @1450 deg. C FOR 2 Hrs OR +/- @1500
deg C FOR 2 Hrs	
SIZE TOLERANCE	: +/- 1.5% (OR) +/- 2MM WHICH EVER IS GREATER



SECTION - AA



SECTION - BB



SECTION - CC

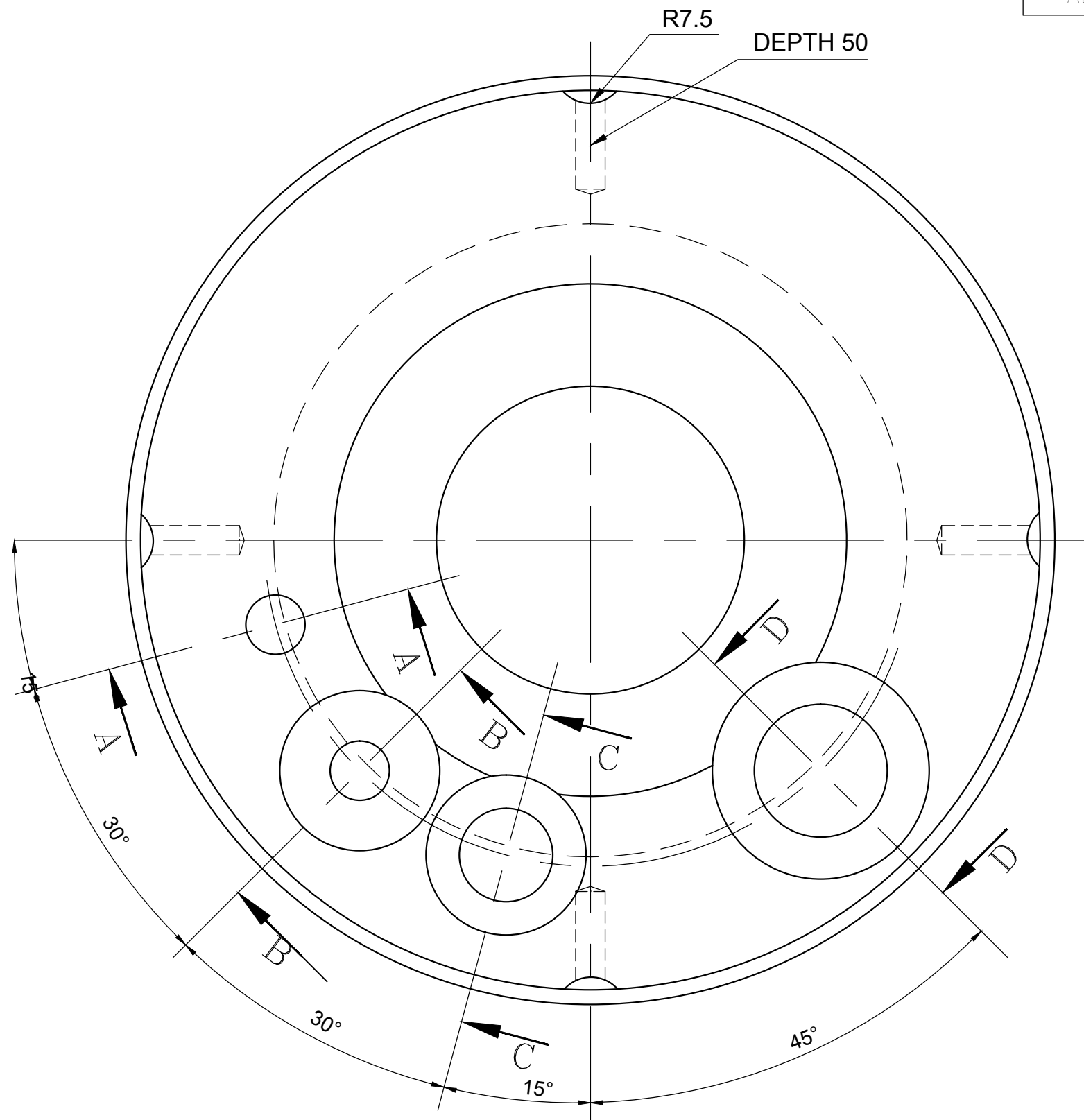
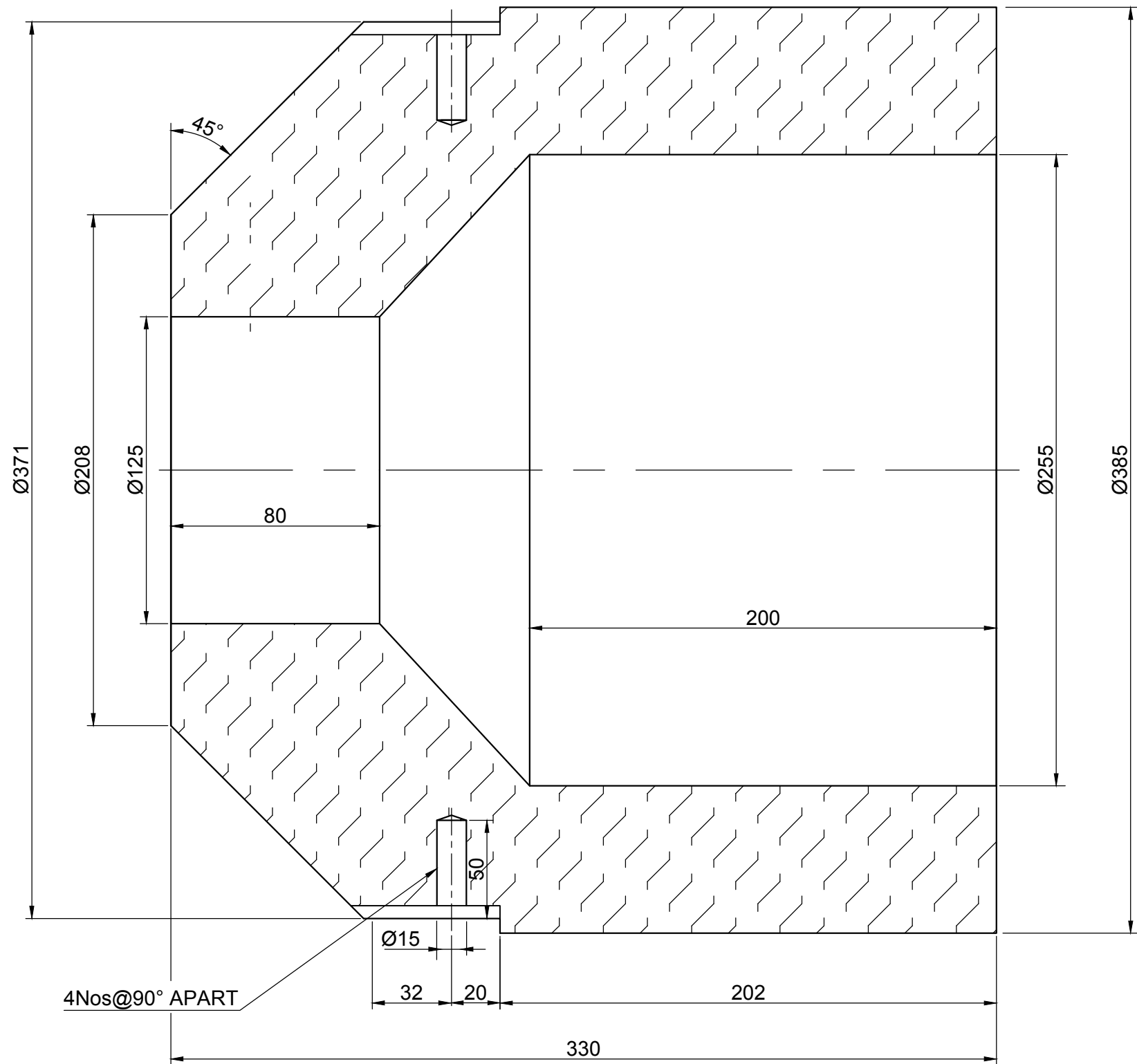
REV 01	DATE	ALTERED
		CHECKED
		APPROVED

CAUTION: THE INFORMATION ON THIS DOCUMENT IS THE PROPERTY OF BHARAT HEAVY ELECTRICALS LIMITED. IT MUST NOT BE USED DIRECTLY OR INDIRECTLY IN ANY MANNER, IN WHOLE OR IN PART, WITHOUT THE WRITTEN PERMISSION OF THE COMPANY.

ITEM NO	DESCRIPTION			DRAWING NO		MATL CODE	UNIT WT	
					MATL SPEC		QTY	
EQPT: ROTARY HEARTH FURNACE								
 Bharat Heavy Electricals Ltd SEAMLESS STEEL TUBE PLANT TIRUCHIRAPALLI – 620014				NAME		SIGNATURE		DATE
				DRN	SSN.KUMAR/YS.M	<i>SSN.Kumar/ys.m</i>		01.03.16
				CHD	RK.SINGH	<i>RK.Singh</i>		01.03.16
				APPD	RK.SINGH	<i>RK.Singh</i>		01.03.16
DEPT	SSTP	GRADE OF UNTOL DIM		SCALE	WEIGHT (Kg)	REF TO ASSY DWG NO		ITEM
CODE	456	$\frac{4}{\sqrt{M}/f}$ IS:2102		1:2	55	REF TO OLD DWG NO		
TITLE						REV		
RHF - BURNER BLOCK(OUTER WALL)					CARD CODE	DRAWING NO :		
BURNER MODEL : 5514 - 7					U 01	6-7-1101-01-01350		00

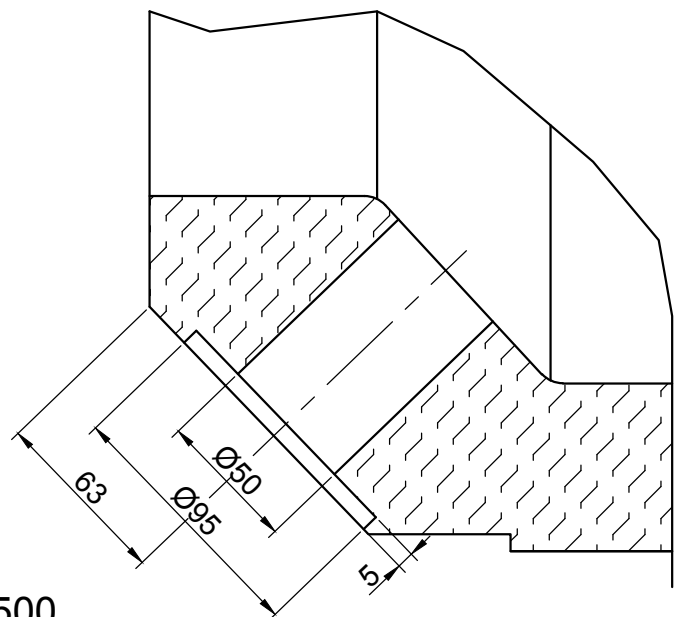
2-7-1101-01-01351

ALL DIMENSIONS ARE IN MILLIMETERS

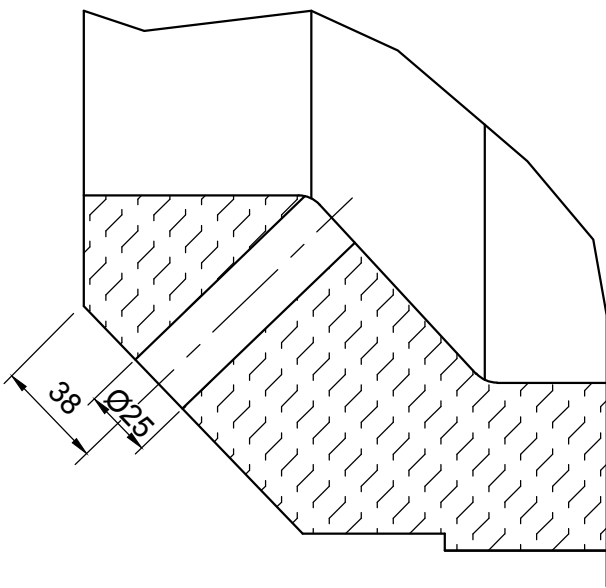


MATERIAL SPECIFICATION:

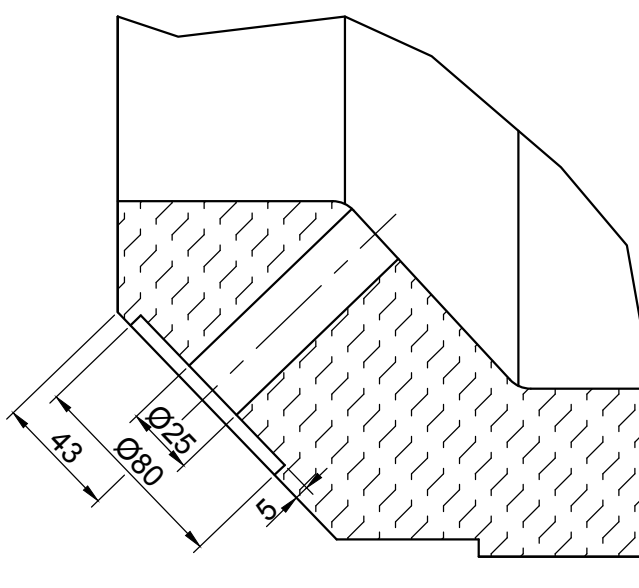
Al 2O3 % min : 58-60
Fe 2O3 % max : 1.5
CCS Kg/sq.cm. min : 250
PCE SK min : 36
RUL ta min : 1530-1570
BD gm/cc min : 2.4
AP % max : 24
PLC % max : +/- 0.2 @1450 deg. C FOR 2 Hrs OR +/- @1500 deg C FOR 2 Hrs
SIZE TOLERANCE : +/- 1.5% (OR) +/- 2MM WHICH EVER IS GREATER



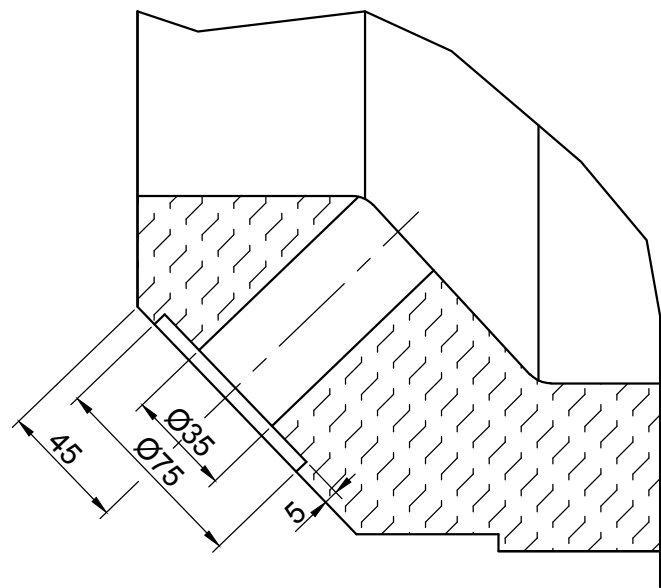
SECTION - DD



SECTION - AA

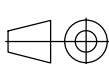


SECTION - BB



SECTION - CC

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ITEM NO	DESCRIPTION	DRAWING NO	MATL CODE		UNIT WT			
			MATL SPEC		QTY			
EQPT: ROTARY HEARTH FURNACE								
 Bharat Heavy Electricals Ltd SEAMLESS STEEL TUBE PLANT TIRUCHIRAPALLI – 620014		DRN	NAME SSN.KUMAR/YS.M	SIGNATURE <i>SSN.Kumar/ys.m</i>	DATE 01.03.16			
		CHD	RK.SINGH	<i>RK. Singh</i>	01.03.16			
		APPD	RK.SINGH	<i>RK. Singh</i>	01.03.16			
DEPT SSTP	GRADE OF UNTOL DIM <i>q / M / t</i> IS: 2102		SCALE 1:2	WEIGHT (Kg) 51	REF TO ASSY DWG NO			ITEM
CODE 456					REF TO OLD DWG NO			
TITLE RHF - BURNER BLOCK(INNER WALL) BURNER MODEL : 5514 - 6				CARD CODE U 01	DRAWING NO : 2-7-1101-01-01351			REV 00

A2-SIZE

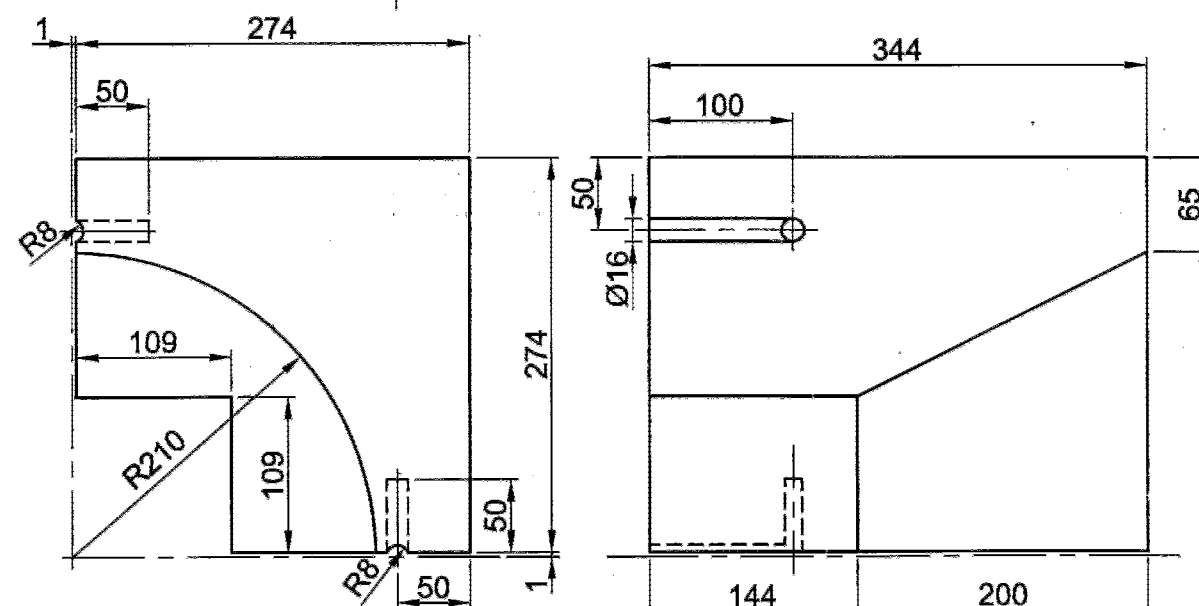
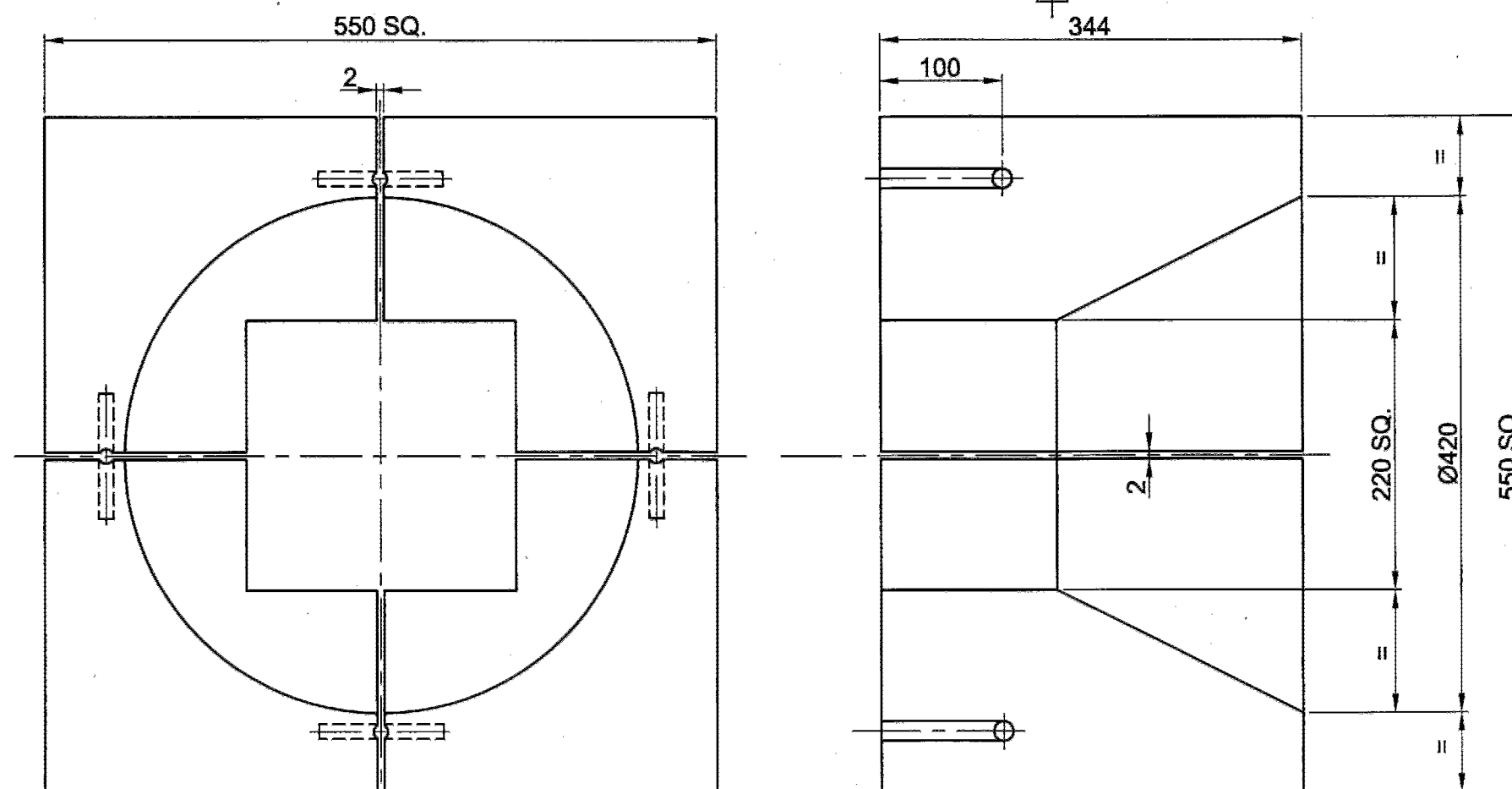


1. THE REFRACTORIES SHALL BE COMPACT, OF HOMOGENEOUS TEXTURE AND FREE FROM CRACKS, VOIDS AND OTHER FLAWS, THEY SHALL BE BURNT EVENLY THROUGHOUT, AND SHALL HAVE SUFFICIENT MECHANICAL STRENGTH AND NO SOFT CORNERS.
2. ALL CORNERS TO BE MINIMUM 3 mm.RADII, UNLESS OTHERWISE STATED.
3. TOLERANCE ON SIZE $\begin{smallmatrix} +0 \\ -1 \end{smallmatrix}$

REV 02	DATE	ALTERED : CHECKED : APPROVED	REV 01	DATE	ALTERED : CHECKED : APPROVED	DEPT	GRADE OF UNTOL DIM ϕ/M/F		SCALE 1:5	WEIGHT(kg) 38	REF TO ASSY DWG NO	ITEM NO
ZONE			ZONE			CODE					REF TO OLD DWG NO FA-0427-3/14	
						TITLE SIDE BLOCK CHARGING & DISCHARGING DOORS				CARD CODE U 01	DRAWING NO : 3-7-1101-01-04699	REV

THE INFORMATION ON THIS DOCUMENT IS THE PROPERTY OF BHARAT HEAVY ELECTRICALS LTD
CAUTION: IT MUST NOT BE USED DIRECTLY OR INDIRECTLY IN ANYWAY DETERMINANT TO INTEREST OF THE COMPANY

ALL DIMENSIONS ARE IN MILLIMETRES



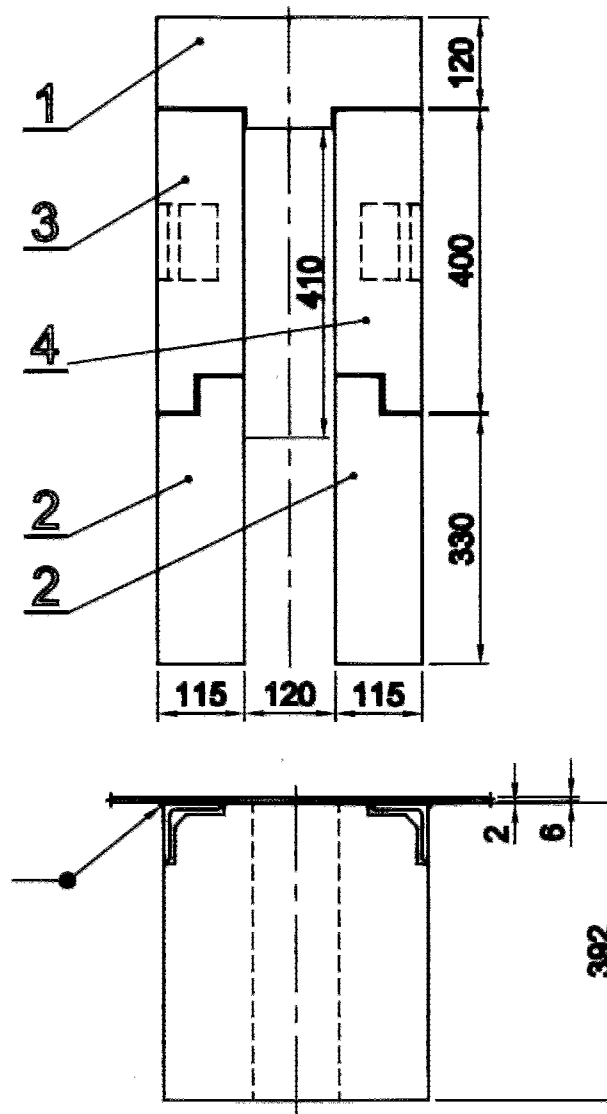
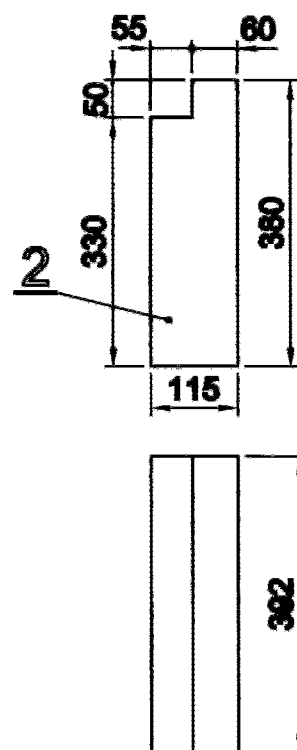
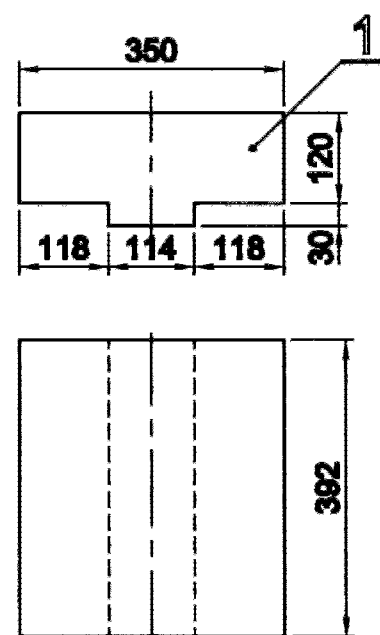
DETAIL OF ONE SEGMENT

NOTES:

1. THE REFRACTORIES SHALL BE COMPACT, OF HOMOGENEOUS TEXTURE AND FREE FROM CRACKS, VOIDS AND OTHER FLAWS, THEY SHALL BE BURNT EVENLY THROUGHOUT, AND SHALL HAVE SUFFICIENT MECHANICAL STRENGTH AND NO SOFT CORNERS.
2. ALL CORNERS TO BE MIN.3mm RADII.
3. TOLERANCE ON SIZE +0
-1

ITEM NO	DESCRIPTION	DRAWING NO	55-60% AL ₂ O ₃	16
			MATL CODE	UNIT WT
			MATL SPEC	QTY
EQPT: WALKING BEAM FURNACE				
Bharat Heavy Electricals Ltd SEAMLESS STEEL TUBE PLANT TIRUCHIRAPALLI - 620014		DRN	NAME SSN.KUMAR	SIGNATURE SSN.Kumar
		CHD		DATE 18.12.04
		APPD	S.SHANMUGASUNDARAM	
DEPT MPG	GRADE OF UNTOL DIM G/M/T	SCALE 1:5	WEIGHT(kg) 188	REF TO ASSY DWG NO
CODE				REF TO OLD DWG NO FA-0428-1A
TITLE BURNER BLOCK GUARD			CARD CODE U 01	DRAWING NO : 3-7-1150-01-04709
				REV 01

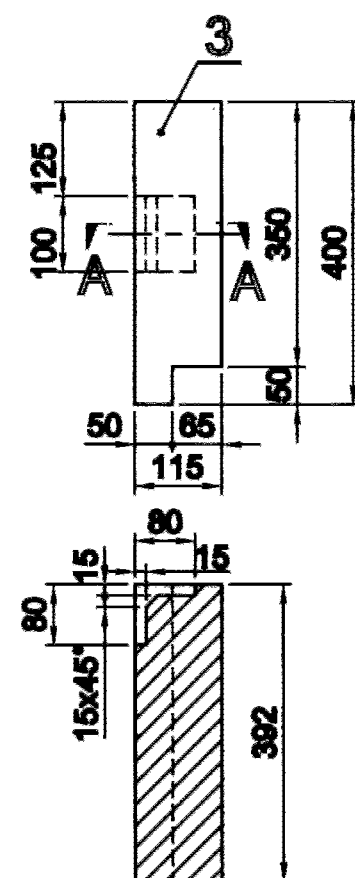
REV 02	DATE	ALTERED : CHECKED : APPROVED :	REV 01	DATE 09-04-05	ALTERED : CHECKED : APPROVED :
ZONE			ZONE		
			DIMENSION 109 WAS 107		



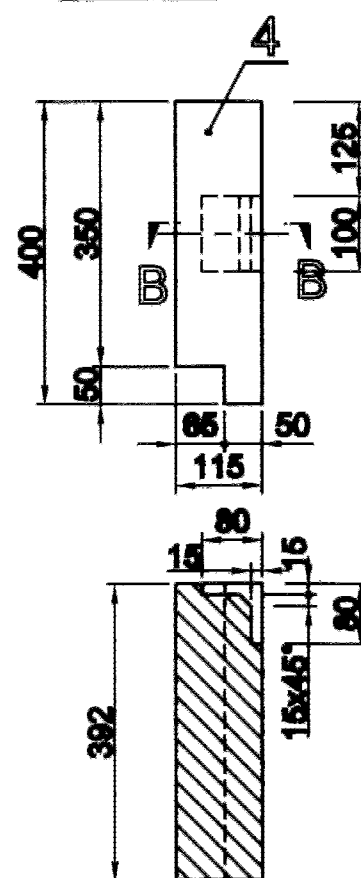
4	55%AL ₂ O ₃	1	33
3	55%AL ₂ O ₃	1	33
2	55%AL ₂ O ₃	2	32
1	55%AL ₂ O ₃	1	36
ITEM No	MATERIAL	QTY	WT(kg)

NOTES:

- 1) THE REFRACTORIES SHALL BE COMPACT, OF HOMOGENEOUS TEXTURE AND FREE FROM CRACKS, VOIDS AND OTHER FLAWS. THEY SHALL BE BURNT EVENLY THROUGHOUT AND SHALL HAVE SUFFICIENT MECHANICAL STRENGTH AND NO SOFT CORNERS.
- 2) ALL CORNERS TO BE MIN. 3mmRADIUS
- 3) TOLERANCE ON SIZE ± 0.1
- 4) BRICKS TO BE INSPECTED IN ASSEMBLED CONDITION WITH OUT MOTOR



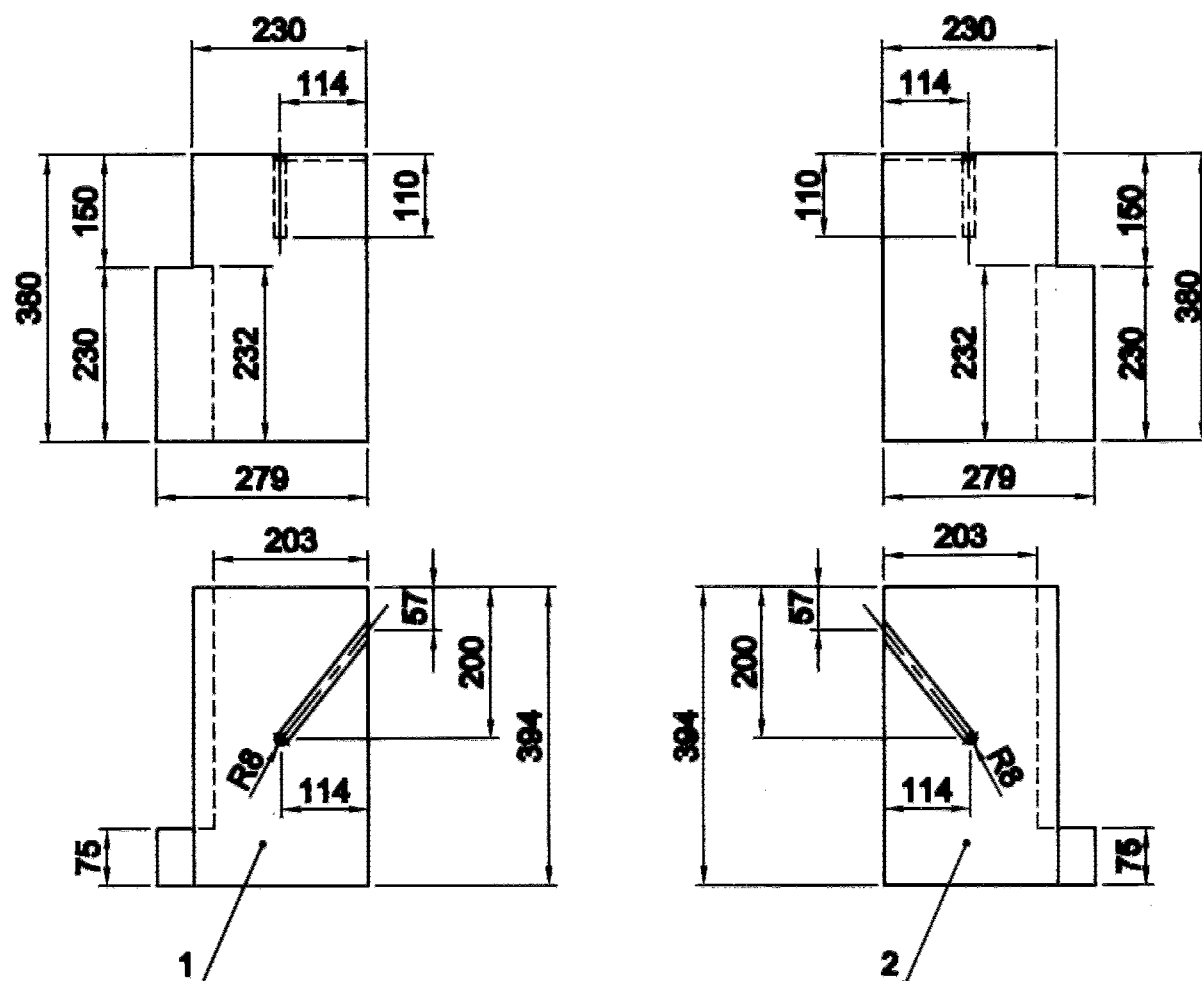
SECTION-AA



SECTION-BB

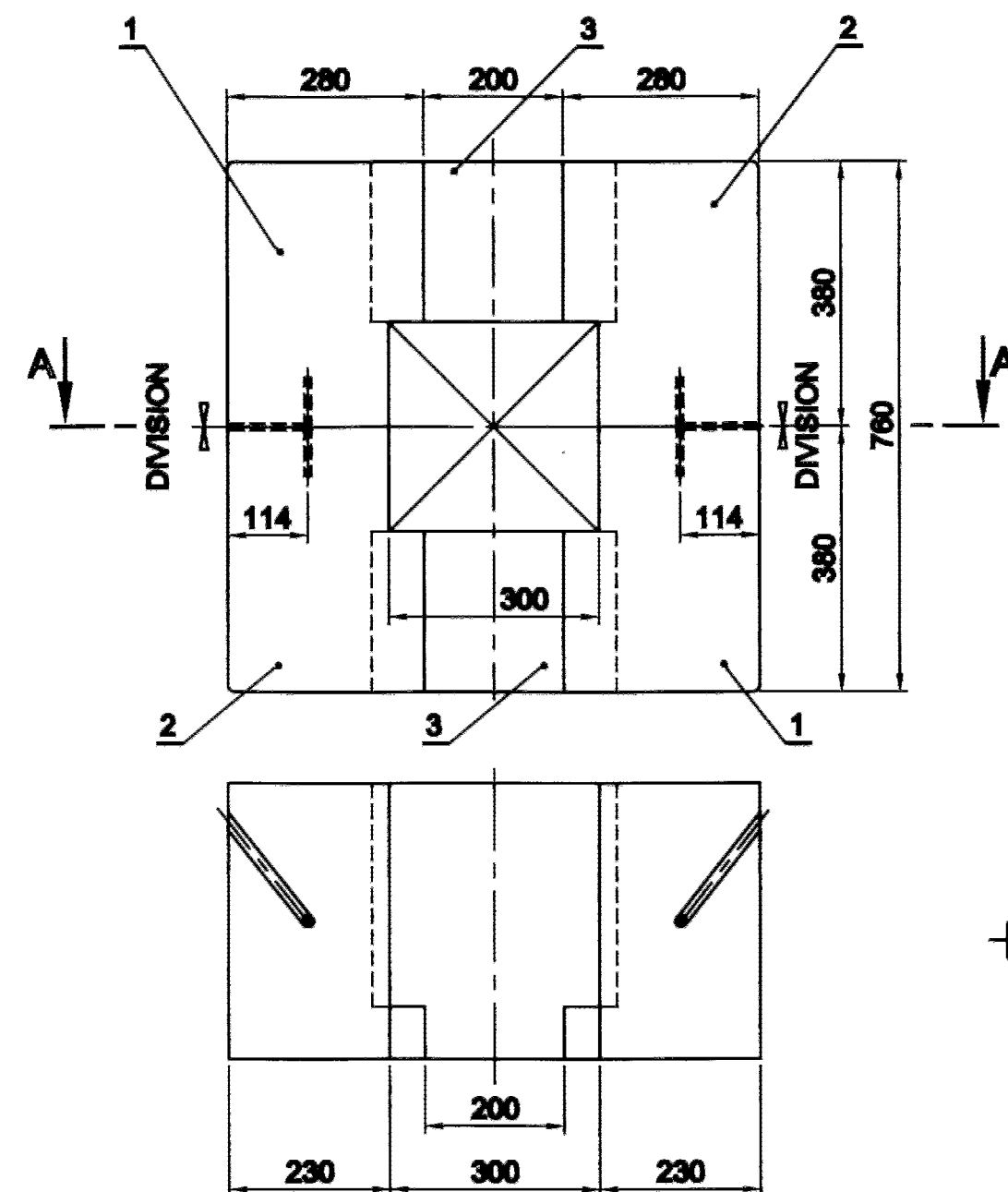
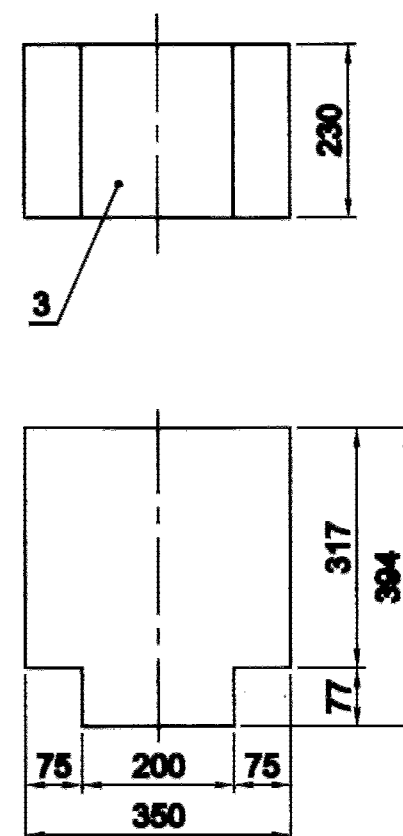
ITEM NO	DESCRIPTION	DRAWING NO	MATL CODE	UNIT WT
			MATL SPEC	QTY
EQPT: WALKING BEAM FURNACE				
Bharat Heavy Electricals Ltd SEAMLESS STEEL TUBE PLANT TIRUCHIRAPALLI - 620014		DRN	NAME SENJUMAR	SIGNATURE S. S. Kumar
		CHD		DATE 28.12.04
		APPD	S. Shanmugasundaram	28/12/04
DEPT MPG	GRADE OF UNTOL DIM G/M/F	SCALE 1:10	WEIGHT(kg) 166	REF TO ASSY DWG NO REF TO OLD DWG NO FA-0428-1B
CODE	TITLE CHARGER BLOCK ASSY		CARD CODE U 01	ITEM NO REV 00

ALL DIMENSIONS ARE IN MILLIMETRES



3	52-55%AL ₂ O ₃	2	69.25
2	52-55%AL ₂ O ₃	2	81
1	52-55%AL ₂ O ₃	2	81
ITEM No	MATERIAL	QTY	WT(kg)

- NOTES:**
- 1) THE REFRACTORIES SHALL BE COMPACT, OF HOMOGENEOUS TEXTURE AND FREE FROM CRACKS, VOIDS AND OTHER FLAWS. THEY SHALL BE BURNT EVENLY THROUGHOUT AND SHALL HAVE SUFFICIENT MECHANICAL STRENGTH AND NO SOFT CORNERS.
 - 2) ALL CORNERS TO BE MIN. 3mm RADII.
 - 3) TOLERANCE ON SIZE ± 0.5
 - 4) BRICKS TO BE INSPECTED IN ASSEMBLED CONDITION WITH OUT MOTOR



SECTION-AA

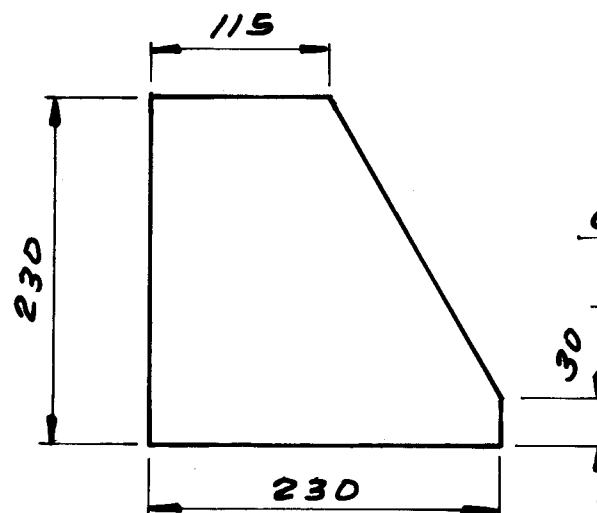
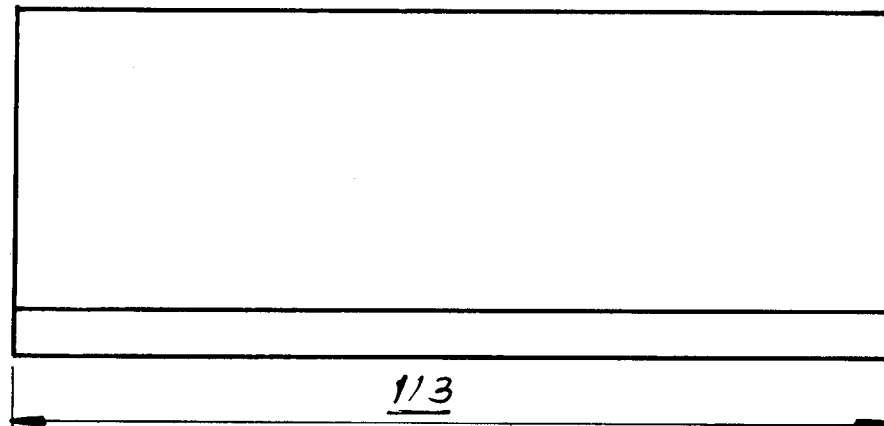
ITEM NO	DESCRIPTION	DRAWING NO	MATL CODE	UNIT WT
			MATL SPEC	QTY
EQPT: WALKING BEAM FURNACE				
Bharat Heavy Electricals Ltd SEAMLESS STEEL TUBE PLANT TIRUCHIRAPALLI - 620014		DRN	NAME S.S. KUMAR	SIGNATURE S.S. Kumar
		CHD		DATE 6.1.05
		APPD	S. Shanmugasundaram	07/01/05
DEPT MPS	GRADE OF UNTOOL DIM 6/10/1	SCALE 1:10	WEIGHT(kg) 462.5	REF TO ASSY DWG NO
CODE				REF TO OLD DWG NO FA-0428-1A/5,6,7
TITLE DOOR PERIPHERY SHAPE BRICK			CARD CODE U 01	DRAWING NO : 3-7-1150-01-04718
				REV 00

REV	DATE	ALTERED :
01		CHECKED :
ZONE		APPROVED

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REV 01	DATE 31.12.01	ALTERED <i>[Signature]</i>
		CHECKED <i>[Signature]</i>
ZONE		APPROVED <i>[Signature]</i>
MATL SPEC REVISED AS PER WESMAN REVISION		

P
↓



VIEW 'P'

QUALITY:-

55-60% AL2O3

SILLIMANITE.

ITEM NO.	DESCRIPTION	MATL CODE	UNIT WT
		MATL SPEC	QTY

EQPT: RHF



Bharat Heavy Electricals Ltd.,

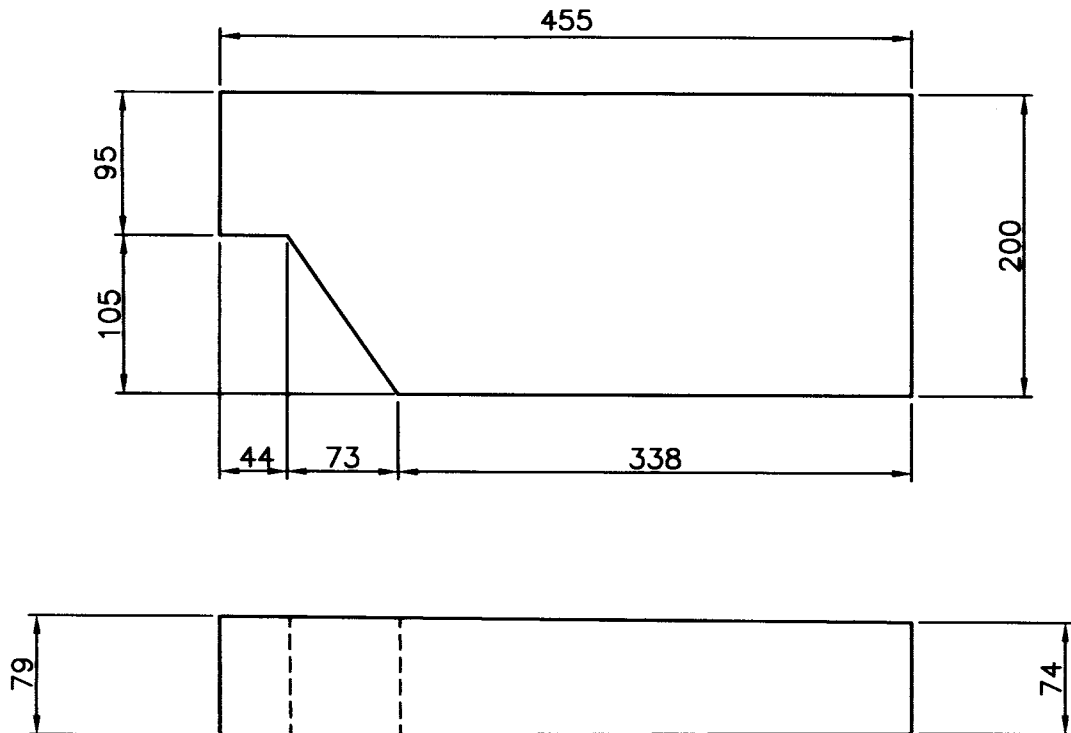
SEAMLESS STEEL TUBE PLANT

TIRUCHIRAPALLI - 620 014

DRN	NAME SSN. KUMAR	DATE 10.7.91
CHD	<i>[Signature]</i>	11.7.91
APPD	<i>[Signature]</i>	11.7.91

DEPT CODE	GRADE OF UNTOL. DIM C/M/F	WEIGHT (kg)	REF TO ASSY/OLD DRG 4-1101-58-48*	ITEM NO.
		1:5		
TITLE SKEW BACK		CARD CODE U 01	DRAWING NO. 4-7-1101-01-0445701	REV

REV	DATE	ALTERED
01		CHECKED
		APPROVED



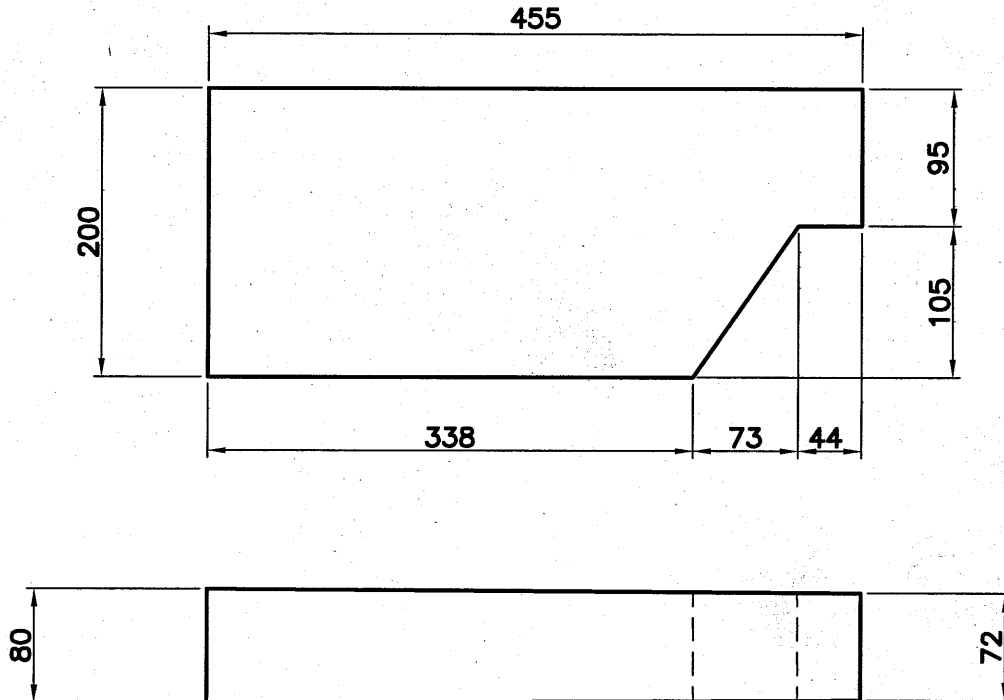
NOTES:

1. THE REFRACTORIES SHALL BE COMPACT, OF HOMOGENEOUS TEXTURE AND FREE FROM CRACKS, VOIDS AND OTHER FLAWS, THEY SHALL BE BURNT EVENLY THROUGHOUT, AND SHALL HAVE SUFFICIENT MECHANICAL STRENGTH AND NO SOFT CORNERS.
2. ALL CORNERS TO BE MINIMUM 3 mm. RADII, UNLESS OTHERWISE STATED.
3. TOLERANCE ON SIZE $\begin{smallmatrix} +0 \\ -1 \end{smallmatrix}$

				80% Al_2O_3		600	
ITEM NO	DESCRIPTION	DRAWING NO		MATL CODE		UNIT WT	
				MATL SPEC		QTY	
EQPT: ROTARY HEARTH FURNACE							
		Bharat Heavy Electricals Ltd SEAMLESS STEEL TUBE PLANT TIRUCHIRAPALLI - 620014		DRN	NAME	SIGNATURE	DATE
				CHD	SENJUMAR	S. N. Kumar	15.12.04
				APPD	S. SHANMUGASUNDARAM	S. Shanmugasundaram	16/12/04
DEPT	MPG	GRADE OF UNTOOL DIM	SCALE	WEIGHT (Kg)	REF TO ASSY DRG		ITEM NO
CODE		$\phi / M / F$	1:5	17.6	REF TO OLD DRG		
				FA-0427-3/2			
TITLE				CARD CODE	DRAWING NO :		REV
HEARTH TOP OUTER SLAB BLOCK				U 01	4-7-1101-01-06278		00

ALL DIMENSIONS ARE IN MM

REV	DATE	ALTERED
01		CHECKED
		APPROVED



NOTES:

1. THE REFRRACTORIES SHALL BE COMPACT, OF HOMOGENEOUS TEXTURE AND FREE FROM CRACKS, VOIDS AND OTHER FLAWS, THEY SHALL BE BURNT EVENLY THROUGHOUT, AND SHALL HAVE SUFFICIENT MECHANICAL STRENGTH AND NO SOFT CORNERS.
2. ALL CORNERS TO BE MINIMUM 3 mm.RADII, UNLESS OTHERWISE STATED.
3. TOLERANCE ON SIZE $\begin{matrix} +0 \\ -1 \end{matrix}$

ITEM NO	DESCRIPTION	DRAWING NO	MATL CODE	UNIT WT
			MATL SPEC	QTY

EQPT: ROTARY HEARTH FURNACE



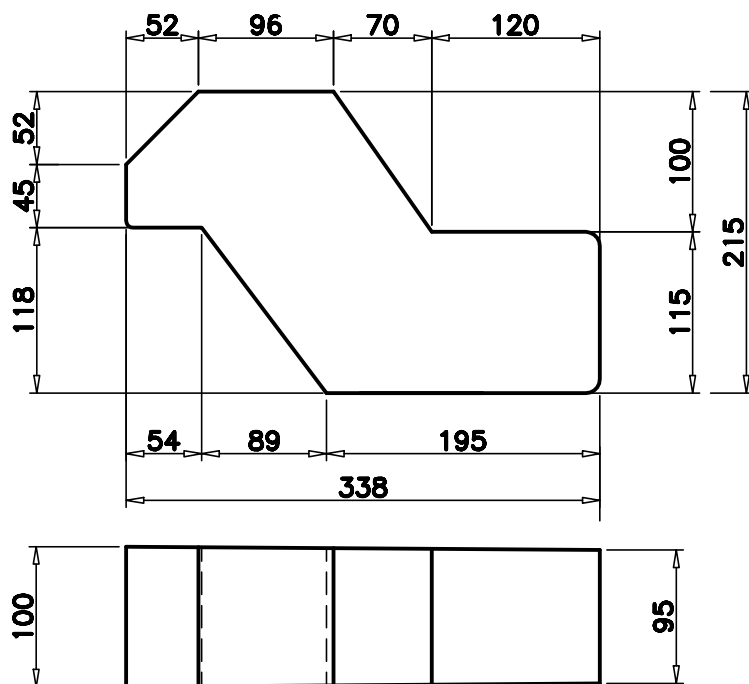
Bharat Heavy Electricals Ltd
SEAMLESS STEEL TUBE PLANT
TIRUCHIRAPALLI - 620014

DRN	NAME	SIGNATURE	DATE
CHD	SSN.KUMAR	<i>SSN.Kumar</i>	15.12.04
APPD	S.SHANMUGASUNDARAM		

DEPT	GRADE OF UNTOOL. DIM	SCALE	WEIGHT (Kg)	REF TO ASSY DRG	ITEM NO
MPG	$\phi/M/f$	1:5	17.4	REF TO OLD DRG	
CODE				FA-0427-3/3	
TITLE				DRAWING NO :	REV
HEARTH TOP INNER SLAB BLOCK				4-7-1101-01-06279	00
				CARD CODE	
				U 01	

ALL DIMENSIONS ARE IN MM

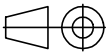
REV 01	DATE	ALTERED	M. Ganesan
	25.08.14	CHECKED	R.K. Singh
		APPROVED	G. Loganathan
New border inserted			



NOTES:

1. THE REFRACTORIES SHALL BE COMPACT, OF HOMOGENEOUS TEXTURE AND FREE FROM CRACKS, VOIDS AND OTHER FLAWS, THEY SHALL BE BURNT EVENLY THROUGHOUT, AND SHALL HAVE SUFFICIENT MECHANICAL STRENGTH AND NO SOFT CORNERS.
2. ALL CORNERS TO BE MINIMUM 3 mm. RADII, UNLESS OTHERWISE STATED.
3. TOLERANCE ON SIZE ± 0.1

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							80% Al_2O_3	480
ITEM NO	DESCRIPTION	DRAWING NO	MATL CODE				UNIT WT	
			MATL SPEC				QTY	
EQPT: ROTARY HEARTH FURNACE								
		Bharat Heavy Electricals Ltd SEAMLESS STEEL TUBE PLANT TIRUCHIRAPALLI – 620014			DRN	NAME SSN.KUMAR	SIGNATURE <i>SSN.Kumar</i>	DATE 15.12.04
					CHD	SSN.KUMAR	<i>SSN.Kumar</i>	15.12.04
					APPD	S.S.SUNDARAM	<i>S.S.Sundaram</i>	15.12.04
DEPT SSTP	GRADE OF UNTOL. DIM		SCALE	WEIGHT (Kg)	REF TO ASSY DWG NO —			ITEM —
CODE 456	$\phi / M / F$ IS: 2102		1:5	12.5	REF TO OLD DWG NO FA-0427-3/4			
TITLE RHF - HEARTH MIDDLE OUTER CIRCLE BLOCK				CARD CODE U 01	DRAWING NO : 4-7-1101-01-06280			REV 01

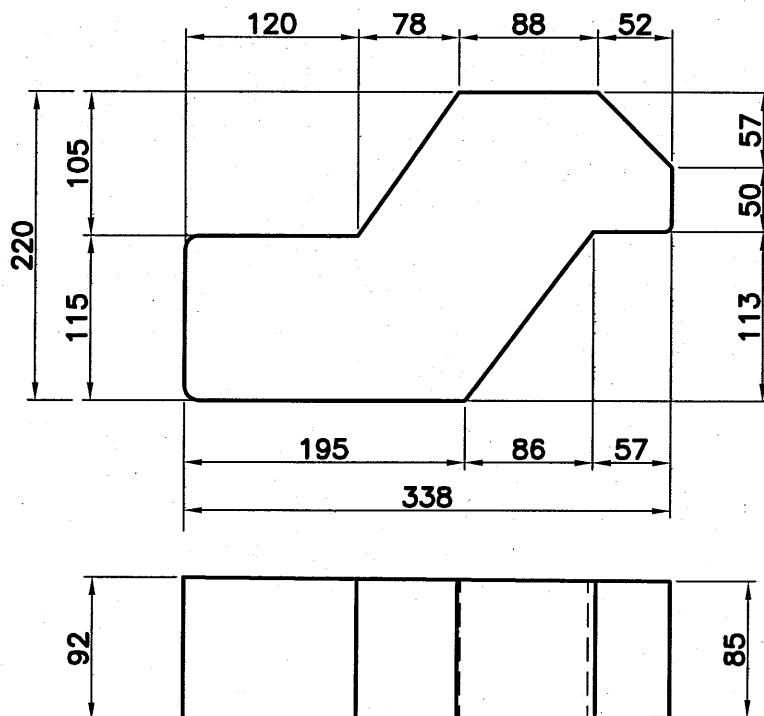
A4-SIZE

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ALL DIMENSIONS ARE IN MM

REV	DATE	ALTERED
01	25.3.10	CHECKED
		APPROVED

DIMENSIONS REVISED.



NOTES:

1. THE REFRFACTORIES SHALL BE COMPACT, OF HOMOGENEOUS TEXTURE AND FREE FROM CRACKS, VOIDS AND OTHER FLAWS, THEY SHALL BE BURNT EVENLY THROUGHOUT, AND SHALL HAVE SUFFICIENT MECHANICAL STRENGTH AND NO SOFT CORNERS.
2. ALL CORNERS TO BE MINIMUM 3 mm.RADII, UNLESS OTHERWISE STATED.
3. TOLERANCE ON SIZE $\begin{matrix} +0 \\ -1 \end{matrix}$

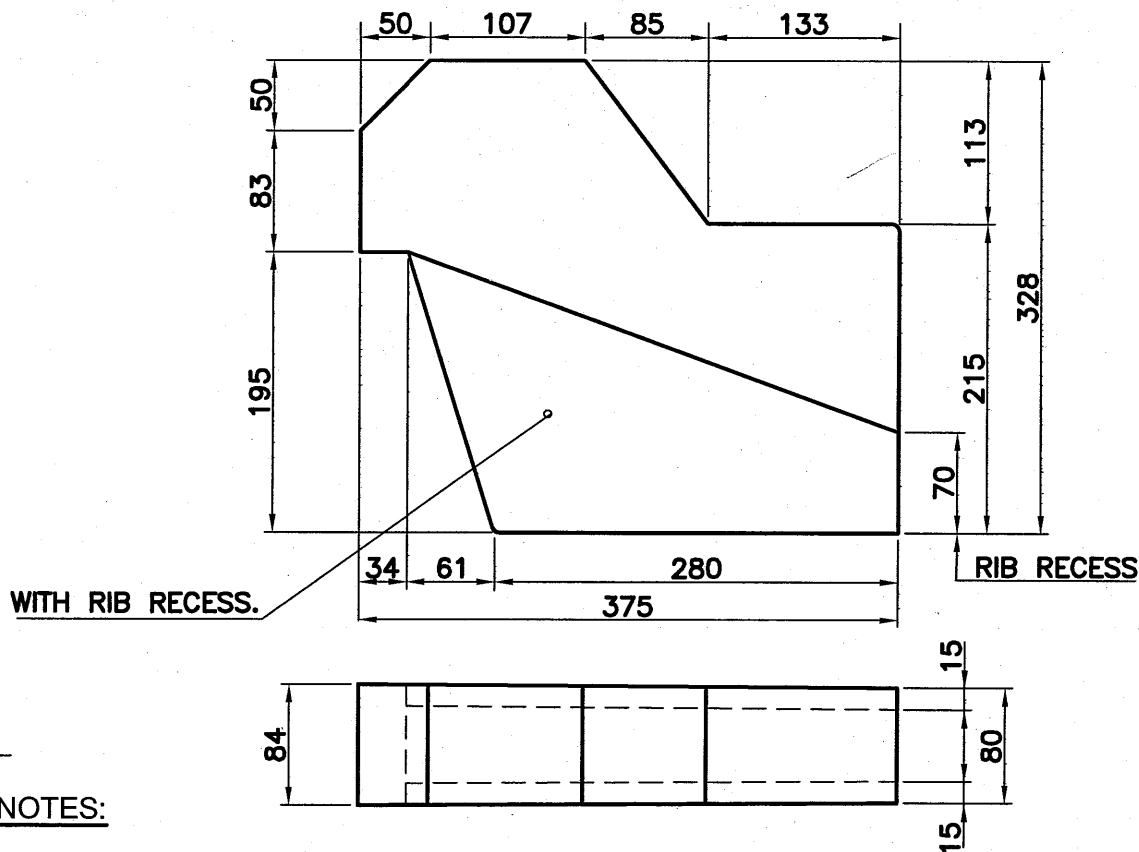
				80% AL ₂ O ₃	300
ITEM NO	DESCRIPTION	DRAWING NO	MATL CODE		UNIT WT
			MATL SPEC		QTY
EQPT: ROTARY HEARTH FURNACE					
		Bharat Heavy Electricals Ltd SEAMLESS STEEL TUBE PLANT TIRUCHIRAPALLI - 620014		NAME SSN.KUMAR	SIGNATURE <i>SSN.Kumar</i>
		DRN			DATE 15.12.04
		CHD			
		APPD	S.SHANMUGASUNDARAM		
DEPT MPG	GRADE OF UNTOL. DIM	SCALE	WEIGHT (Kg)	REF TO ASSY DRG	ITEM NO
CODE	¢/M/¢	1:5	11.4	REF TO OLD DRG FA-0427-3/5	
TITLE HEARTH MIDDLE INNER CIRCLE BLOCK			CARD CODE U 01	DRAWING NO : 4-7-1101-01-06281	REV 01

NOT OK.

ALL DIMENSIONS ARE IN MM

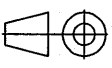
REV	DATE	ALTERED
01	24.3.10	CHECKED
		APPROVED

DIMENSIONS REVISED.



NOTES:

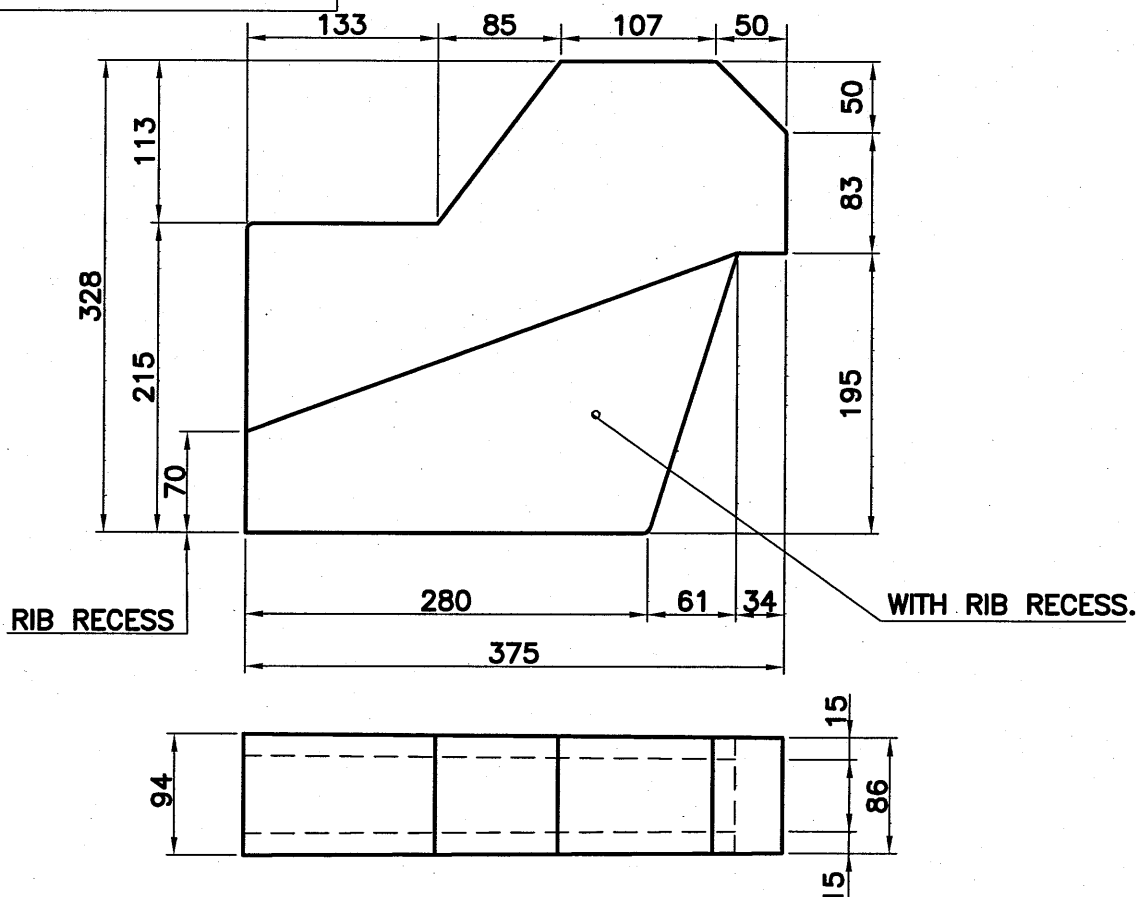
1. THE REFRACTORIES SHALL BE COMPACT, OF HOMOGENEOUS TEXTURE AND FREE FROM CRACKS, VOIDS AND OTHER FLAWS, THEY SHALL BE BURNT EVENLY THROUGHOUT, AND SHALL HAVE SUFFICIENT MECHANICAL STRENGTH AND NO SOFT CORNERS.
2. ALL CORNERS TO BE MINIMUM 3 mm. RADII, UNLESS OTHERWISE STATED.
3. TOLERANCE ON SIZE $\begin{matrix} +0 \\ -1 \end{matrix}$
4. TO BE READ IN ACCORDANCE WITH DRAWING 4-7-1101-01-06278 & 06280 TO BE CHECKED IN ASSEMBLED CONDITION DURING INSPECTION.

				80% AL ₂ O ₃		576	
ITEM NO	DESCRIPTION	DRAWING NO	MATL CODE		UNIT WT		
			MATL SPEC		QTY		
EQPT: ROTARY HEARTH FURNACE							
 Bharat Heavy Electricals Ltd SEAMLESS STEEL TUBE PLANT TIRUCHIRAPALLI - 620014		DRN	NAME SSN.KUMAR	SIGNATURE <i>SSN.Kumar</i>	DATE 15.12.04		
		CHD					
		APPD	S.SHANMUGASUNDARAM				
DEPT MPG	GRADE OF UNTOL. DIM ϕ/M/f	 SCALE 1:5	WEIGHT (Kg)		REF TO ASSY DRG		ITEM NO
CODE			18.1		REF TO OLD DRG FA-0427-3/6		
TITLE HEARTH BOTTOM OUTER CIRCLE BLOCK			CARD CODE U 01	DRAWING NO : 4-7-1101-01-06282			REV 01

not ok.

ALL DIMENSIONS ARE IN MM

REV	DATE	ALTERED
01		CHECKED
		APPROVED



NOTES:

1. THE REFRACTORIES SHALL BE COMPACT, OF HOMOGENEOUS TEXTURE AND FREE FROM CRACKS, VOIDS AND OTHER FLAWS, THEY SHALL BE BURNT EVENLY THROUGHOUT, AND SHALL HAVE SUFFICIENT MECHANICAL STRENGTH AND NO SOFT CORNERS.
2. ALL CORNERS TO BE MINIMUM 3 mm. RADII, UNLESS OTHERWISE STATED.
3. TOLERANCE ON SIZE $\begin{matrix} +0 \\ -1 \end{matrix}$

ITEM NO	DESCRIPTION	DRAWING NO	MATL CODE	UNIT WT
			MATL SPEC	QTY

EQPT: ROTARY HEARTH FURNACE



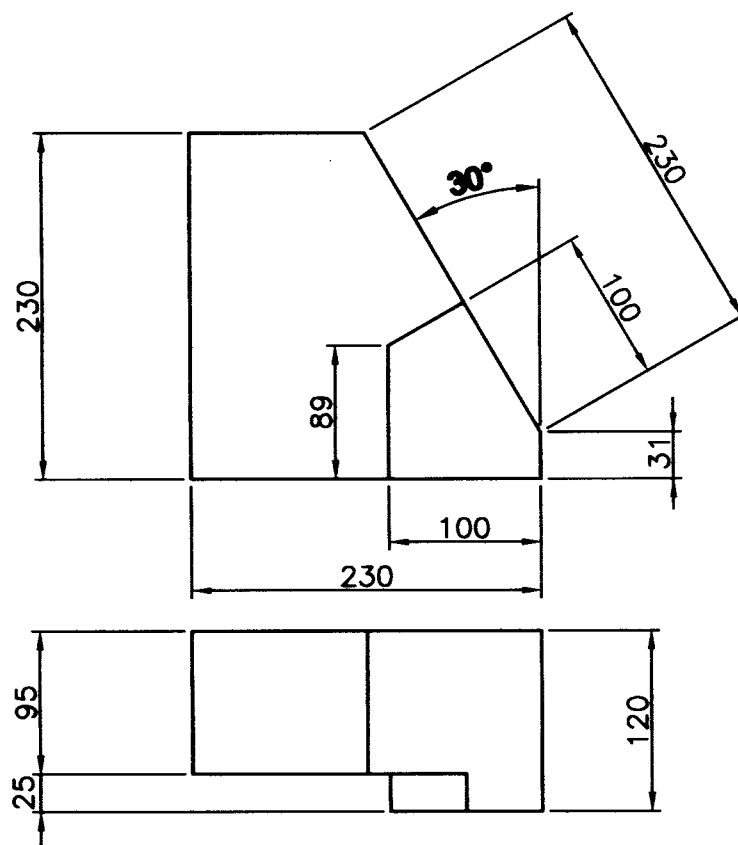
Bharat Heavy Electricals Ltd
SEAMLESS STEEL TUBE PLANT
TIRUCHIRAPALLI - 620014

DRN	NAME	SIGNATURE	DATE
CHD	SSN.KUMAR	<i>SSN.Kumar</i>	15.12.04
APPD	S.SHANMUGASUNDARAM		

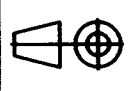
DEPT	MPG	GRADE OF UNTOL DIM	SCALE	WEIGHT (Kg)	REF TO ASSY DRG	ITEM NO
CODE		$\phi/M/f$	1:5	20.4	REF TO OLD DRG FA-0427-3/7	

TITLE	CARD CODE	DRAWING NO :	REV
HEARTH BOTTOM INNER CIRCLE BLOCK	U 01	4-7-1101-01-06283	00

REV 01	DATE	ALTERED
		CHECKED
		APPROVED

**NOTES:**

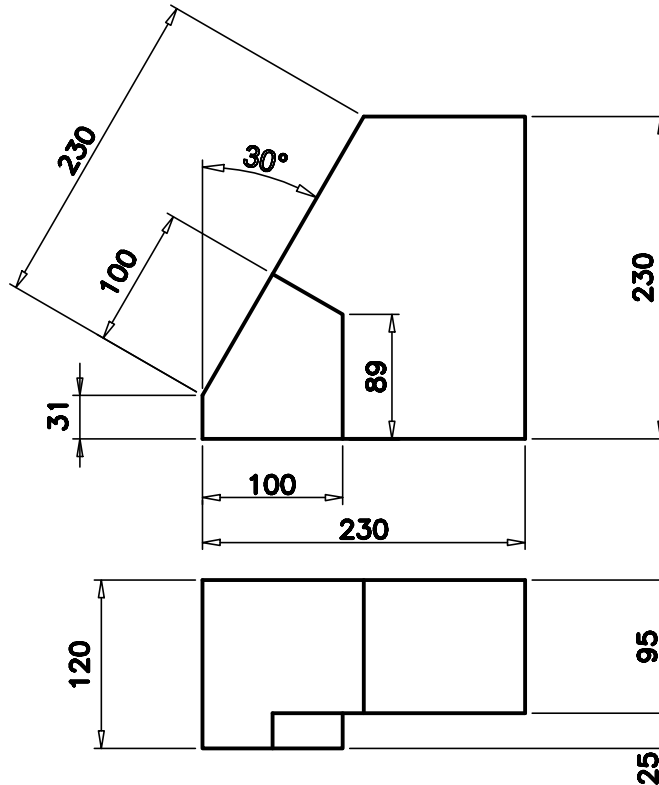
- 1. THE REFRACTORIES SHALL BE COMPACT, OF HOMOGENEOUS TEXTURE AND FREE FROM CRACKS, VOIDS AND OTHER FLAWS, THEY SHALL BE BURNT EVENLY THROUGHOUT, AND SHALL HAVE SUFFICIENT MECHANICAL STRENGTH AND NO SOFT CORNERS.**
- 2. ALL CORNERS TO BE MINIMUM 3 mm. RADII, UNLESS OTHERWISE STATED.**
- 3. TOLERANCE ON SIZE $\pm .1$**

				95-98% Al_2O_3	2				
ITEM NO	DESCRIPTION	DRAWING NO	MATL CODE		UNIT WT				
			MATL SPEC		QTY				
EQPT: ROTARY HEARTH FURNACE									
		Bharat Heavy Electricals Ltd SEAMLESS STEEL TUBE PLANT TIRUCHIRAPALLI - 620014		DRN	NAME SENKUMAR				
				SIGNATURE	<i>SEN. Kumar</i>				
				DATE	18.12.04				
DEPT MPG	GRADE OF UNTOL DIM E/N/T		SCALE 1:5	WEIGHT (Kg) 10	REF TO ASSY DRG				
					REF TO OLD DRG FA-0427-3/8				
TITLE SKEW BACK-R.H CHARGING & DISCHARGING DOORS					CARD CODE U 01				
DRAWING NO : 4-7-1101-01-06284					REV 00				

ALL DIMENSIONS ARE IN MM

REV	DATE	ALTERED	<i>A. Suresan</i>
01	28.08.14	CHECKED	<i>S. S. Suresan</i>
		APPROVED	<i>S. S. Suresan</i>

New border inserted



NOTES:

1. THE REFRACTORIES SHALL BE COMPACT, OF HOMOGENEOUS TEXTURE AND FREE FROM CRACKS, VOIDS AND OTHER FLAWS, THEY SHALL BE BURNT EVENLY THROUGHOUT, AND SHALL HAVE SUFFICIENT MECHANICAL STRENGTH AND NO SOFT CORNERS.
2. ALL CORNERS TO BE MINIMUM 3 mm. RADII, UNLESS OTHERWISE STATED.
3. TOLERANCE ON SIZE ± 0.1

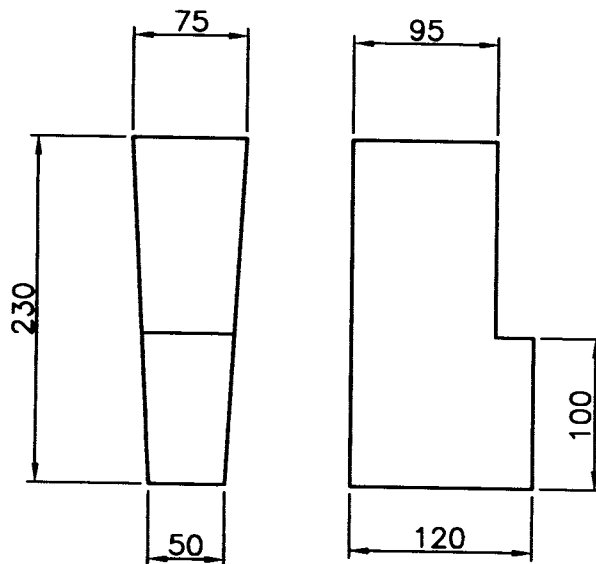
CAUTION: THE INFORMATION ON THIS DOCUMENT IS THE PROPERTY OF BHARAT HEAVY ELECTRICALS LIMITED. IT MUST NOT BE USED DIRECTLY OR INDIRECTLY IN ANY WAY DETRIMENTAL TO THE INTEREST OF THE COMPANY.

			65-00% AL2O3		2	
ITEM NO	DESCRIPTION	DRAWING NO	MATL CODE		UNIT WT	
			MATL SPEC		QTY	
EQPT: ROTARY HEARTH FURNACE						
	Bharat Heavy Electricals Ltd SEAMLESS STEEL TUBE PLANT TIRUCHIRAPALLI – 620014	DRN	NAME SSN.KUMAR	SIGNATURE SSN.Kumar	DATE 15.12.04	
		CHD	SSN.KUMAR	SSN.Kumar	15.12.04	
		APPD	S.S.SUNDARAM	S.S.Sundaram	15.12.04	
DEPT SSTP	GRADE OF UNTOL DIM		SCALE	WEIGHT (Kg)	REF TO ASSY DWG NO —	ITEM —
CODE 456	¢/M/F IS:2102		1:1	10	REF TO OLD DWG NO FA-0427-3/9	
TITLE RHF - SKEW BACK-LH CHARGING & DISCHARGING DOORS				CARD CODE U 01	DRAWING NO : 4-7-1101-01-06285	REV 01

A4—SIZE

ALL DIMENSIONS ARE IN MM

REV S	DATE	ALTERED
		CHECKED
		APPROVED

**NOTES:**

1. THE REFRRACTORIES SHALL BE COMPACT, OF HOMOGENEOUS TEXTURE AND FREE FROM CRACKS, VOIDS AND OTHER FLAWS, THEY SHALL BE BURNT EVENLY THROUGHOUT, AND SHALL HAVE SUFFICIENT MECHANICAL STRENGTH AND NO SOFT CORNERS.
2. ALL CORNERS TO BE MINIMUM 3 mm. RADII, UNLESS OTHERWISE STATED.
3. TOLERANCE ON SIZE $\begin{smallmatrix} +0 \\ -1 \end{smallmatrix}$

ITEM NO	DESCRIPTION	DRAWING NO	85-80% Al_2O_3	10
			MATL CODE	UNIT WT
			MATL SPEC	QTY

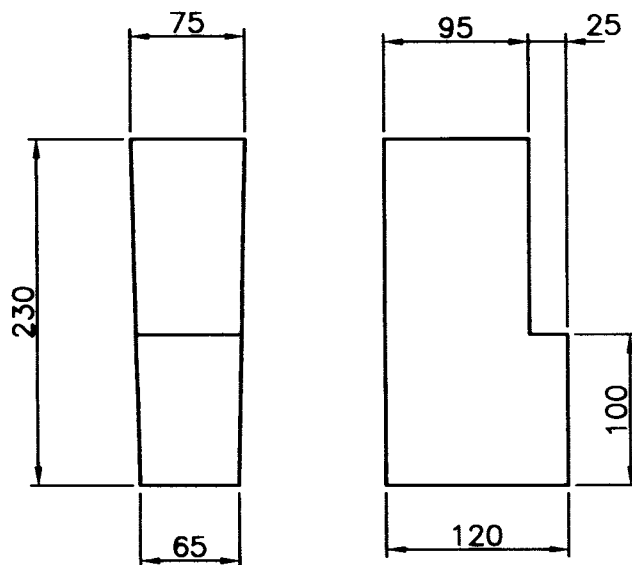
EQPT: **ROTARY HEARTH FURNACE**

Bharat Heavy Electricals Ltd
SEAMLESS STEEL TUBE PLANT
TIRUCHIRAPALLI - 620014

DRN	NAME	SIGNATURE	DATE
CHD	SENJ KUMAR	SENJ. Kumar	15.12.04
APPD	S. SHANMUGASUNDARAM	S. Shanmugam	16/12/04

DEPT MPG	GRADE OF UNTOL. DIM G/M/Y		SCALE 1:5	WEIGHT (Kg) 3.8	REF TO ASSY DRG	ITEM NO
CODE					REF TO OLD DRG FA-0427-3/10	
TITLE END ARCH CHARGING & DISCHARGING DOORS				CARD CODE U 01	DRAWING NO : 4-7-1101-01-06286	REV 00

REV S	DATE	ALTERED
		CHECKED
		APPROVED

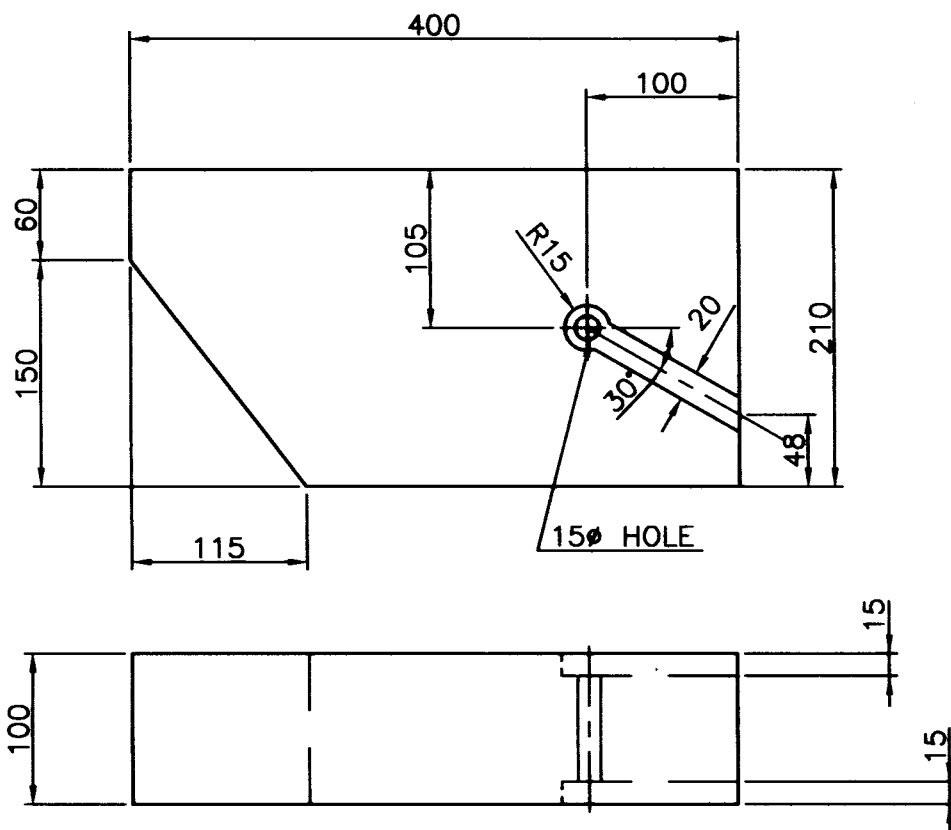
**NOTES:**

- 1. THE REFRFRATORIES SHALL BE COMPACT, OF HOMOGENEOUS TEXTURE AND FREE FROM CRACKS, VOIDS AND OTHER FLAWS, THEY SHALL BE BURNT EVENLY THROUGHOUT, AND SHALL HAVE SUFFICIENT MECHANICAL STRENGTH AND NO SOFT CORNERS.**
- 2. ALL CORNERS TO BE MINIMUM 3 mm.RADII, UNLESS OTHERWISE STATED.**
- 3. TOLERANCE ON SIZE $\begin{smallmatrix} +0 \\ -1 \end{smallmatrix}$**

					85-90% AL_2O_3	10		
ITEM NO	DESCRIPTION	DRAWING NO	MATL CODE		UNIT WT			
			MATL SPEC		QTY			
EQPT: ROTARY HEARTH FURNACE								
 Bharat Heavy Electricals Ltd SEAMLESS STEEL TUBE PLANT TIRUCHIRAPALLI - 620014			DRN	NAME SENKUMAR	SIGNATURE <i>SEN. Kumar</i>	DATE 15.12.04		
			CHD					
			APPD	S. BHANMUGASUNDARAM	<i>S. Bhanmug</i>	16/12/04		
DEPT MPG	GRADE OF UNTOOL DIM <i>2/1/1</i>		SCALE 1:5	WEIGHT (Kg) 4.2	REF TO ASSY DRG			
CODE					REF TO OLD DRG FA-0427-3/11			
TITLE END ARCH CHARGING & DISCHARGING DOORS				CARD CODE U 01	DRAWING NO : 4-7-1101-01-06287	REV 00		

ALL DIMENSIONS ARE IN MM

REV 01	DATE	ALTERED
		CHECKED
		APPROVED

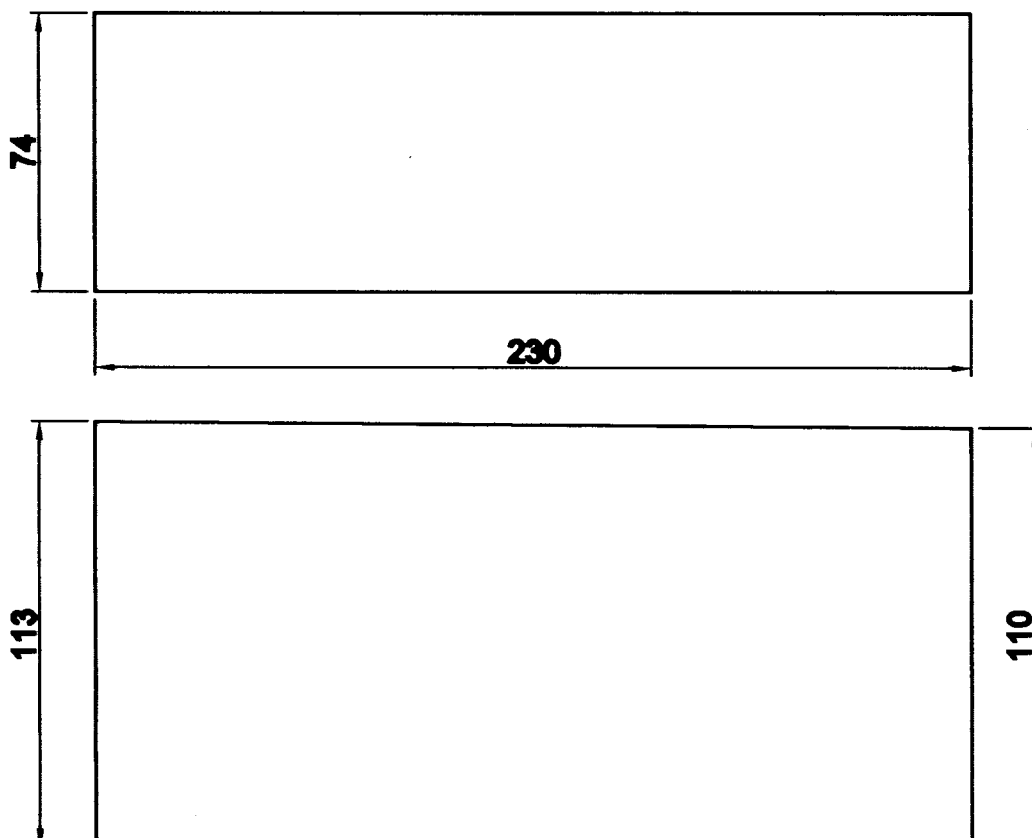


1. THE REFRFRACTORIES SHALL BE COMPACT, OF HOMOGENEOUS TEXTURE AND FREE FROM CRACKS, VOIDS AND OTHER FLAWS, THEY SHALL BE BURNT EVENLY THROUGHOUT, AND SHALL HAVE SUFFICIENT MECHANICAL STRENGTH AND NO SOFT CORNERS.
2. ALL CORNERS TO BE MINIMUM 3 mm.RADI, UNLESS OTHERWISE STATED.
3. TOLERANCE ON SIZE ± 0.1

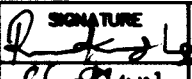
					65-60% AL ₂ O ₃	28	
ITEM NO	DESCRIPTION	DRAWING NO	MATL CODE		UNIT WT		
			MATL SPEC		QTY		
EQPT: ROTARY HEARTH FURNACE							
 Bharat Heavy Electricals Ltd SEAMLESS STEEL TUBE PLANT TIRUCHIRAPALLI - 620014		DRN	NAME SENILKUMAR	SIGNATURE <i>SEN. Kumar</i>	DATE 15.12.04		
		CHD					
		APPD	S.SHANMUGASUNDARAM		<i>S. Shanmugasundaram</i> 16/12/04		
DEPT MPG	GRADE OF UNTOOL. DIM <i>2/M/R</i>		SCALE 1:5	WEIGHT (Kg) 16.6	REF TO ASSY DRG		ITEM NO
CODE					REF TO OLD DRG FA-0427-3/12		
TITLE SILL BLOCK CHARGING & DISCHARGING DOORS				CARD CODE U 01	DRAWING NO : 4-7-1101-01-06288		REV 00

ALL DIMENSIONS ARE IN MM

REV 01	DATE	ALTERED
		CHECKED
		APPROVED

**NOTES:**

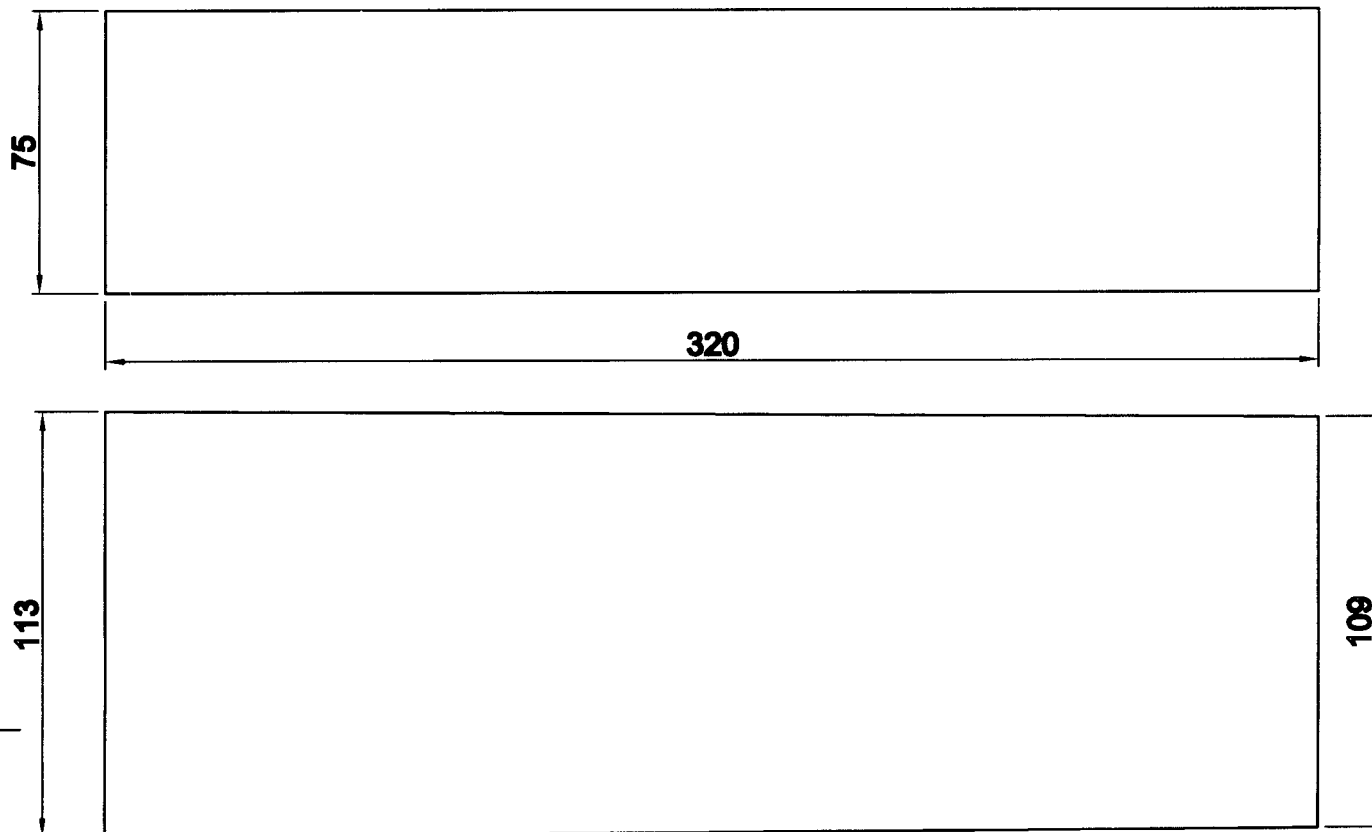
- 1) THE REFRACTORIES SHALL BE COMPACT, OF HOMOGENEOUS TEXTURE AND FREE FROM CRACKS, VOIDS AND OTHER FLAWS. THEY SHALL BE BURNT EVENLY THROUGHOUT AND SHALL HAVE SUFFICIENT MECHANICAL STRENGTH AND NO SOFT CORNERS.
- 2) ALL CORNERS TO BE MIN. 5mm RADII.

					55%-60% AL ₂ O ₃	6050
ITEM NO	DESCRIPTION	DRAWING NO			MATL CODE	UNIT WT
					MATL SPEC	QTY
EQPT: ROTARY HEARTH FURNACE						
		Bharat Heavy Electricals Ltd SEAMLESS STEEL TUBE PLANT TIRUCHIRAPALLI - 620014		DRN	NAME P. RAMAKRISHNAN	SIGNATURE 
				CHD	SENKUMAR	DATE 28.12.04
				APPD	S.SHANMUGASUNDARAM	DATE 01/01/05
DEPT MPG	GRADE OF UNTOL DIM C/M/F		SCALE 1:2	WEIGHT (Kg) 4.8	REF TO ASSY DRG	ITEM NO
CODE					REF TO OLD DRG 388185 1/2-1	
TITLE OUTER WALL SUPPORTING BRICK-I				CARD CODE U 01	DRAWING NO : 4-7-1101-01-06301	REV 00

ALL DIMENSIONS ARE IN MM

CAUTION: THE INFORMATION ON THIS DOCUMENT IS THE PROPERTY OF BHARAT HEAVY ELECTRICALS LTD
IT MUST NOT BE USED DIRECTLY OR INDIRECTLY IN ANYWAY DETERMINANTAL TO INTEREST OF THE COMPANY

REV	DATE	ALTERED
01		CHECKED
		APPROVED

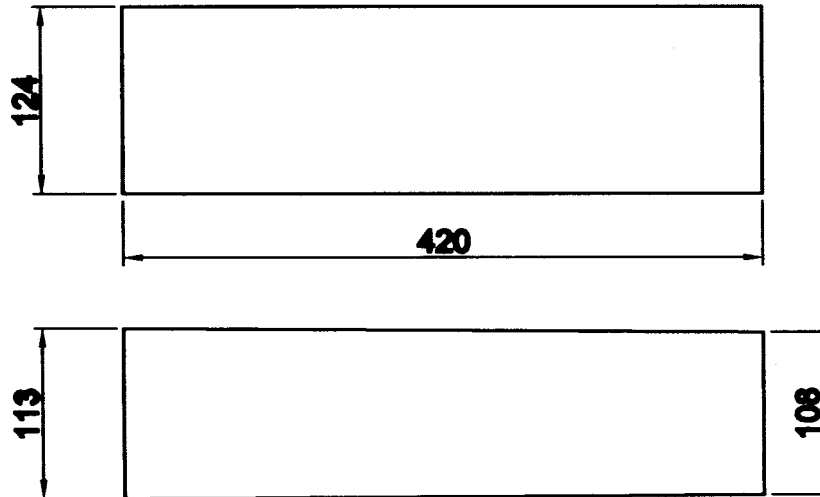
**NOTES:**

- 1) THE REFRACTORIES SHALL BE COMPACT, OF HOMOGENEOUS TEXTURE AND FREE FROM CRACKS, VOIDS AND OTHER FLAWS. THEY SHALL BE BURNT EVENLY THROUGHOUT AND SHALL HAVE SUFFICIENT MECHANICAL STRENGTH AND NO SOFT CORNERS.
- 2) ALL CORNERS TO BE MIN. 5mmRADII.

				55%-60% AL ₂ O ₃		1290
ITEM NO	DESCRIPTION	DRAWING NO		MATL CODE		UNIT WT
				MATL SPEC		QTY
EQPT: ROTARY HEARTH FURNACE						
		Bharat Heavy Electricals Ltd SEAMLESS STEEL TUBE PLANT TIRUCHIRAPALLI - 620014		DRN	NAME P. RAMAKRISHNAN	SIGNATURE <i>[Signature]</i>
				CHD	SSN.KUMAR	<i>[Signature]</i>
				APPD	S.SHANMUGASUNDARAM	<i>[Signature]</i>
DEPT MPG	GRADE OF UNTOL DIM C/M/F		SCALE 1:2	WEIGHT (Kg) 6.7	REF TO ASSY DRG	
CODE					REF TO OLD DRG 358105 1/2-2	
TITLE OUTER WALL SUPPORTING BRICK-II				CARD CODE U 01	DRAWING NO : 4-7-1101-01-06302	
					REV 00	

ALL DIMENSIONS ARE IN MM

REV 01	DATE	ALTERED
		CHECKED
		APPROVED



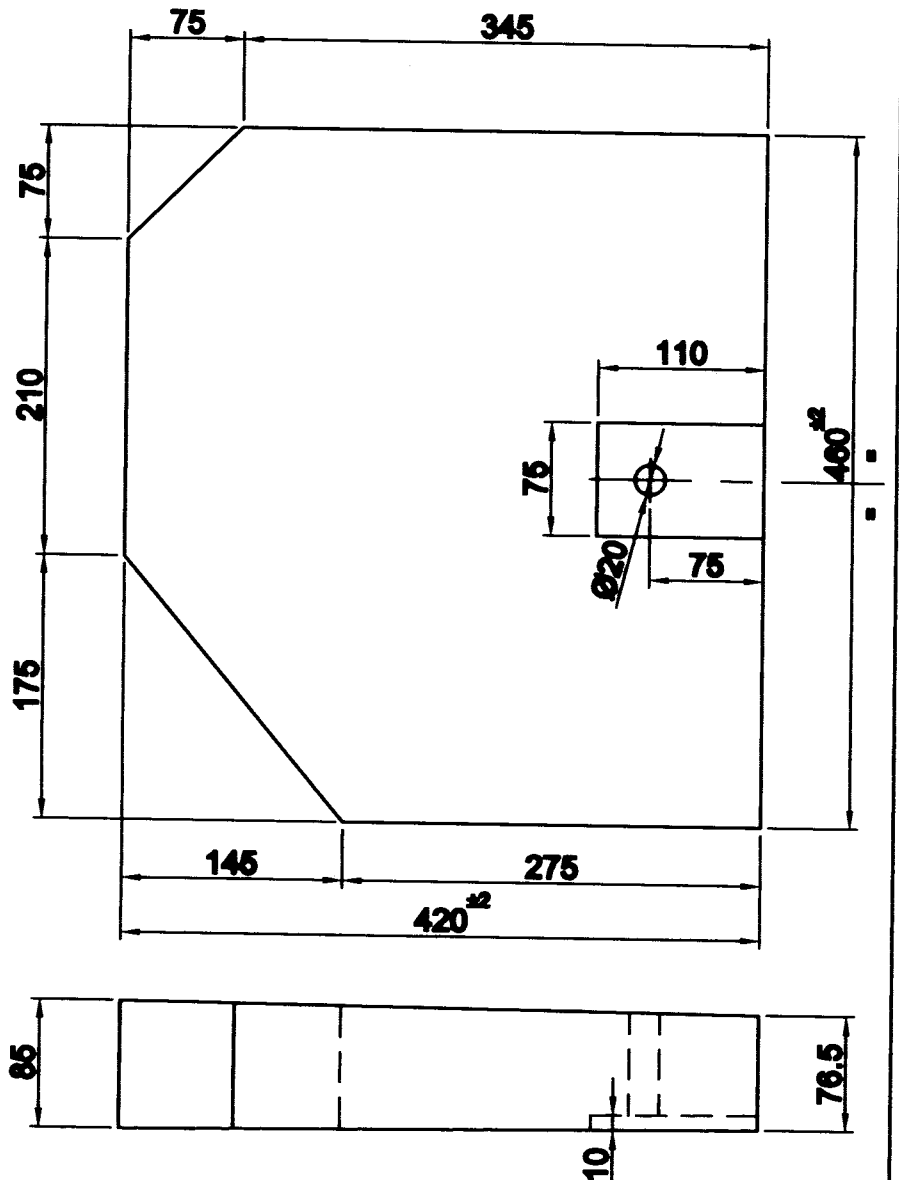
NOTES:

- 1) THE REFRACTORIES SHALL BE COMPACT, OF HOMOGENEOUS TEXTURE AND FREE FROM CRACKS, VOIDS AND OTHER FLAWS. THEY SHALL BE BURNT EVENLY THROUGHOUT AND SHALL HAVE SUFFICIENT MECHANICAL STRENGTH AND NO SOFT CORNERS.
- 2) ALL CORNERS TO BE MIN. 5mmRADII.

					55%-60% AL₂O₃		730		
ITEM NO	DESCRIPTION	DRAWING NO			MATL CODE	UNIT WT			
					MATL SPEC	QTY			
EQPT: ROTARY HEARTH FURNACE									
		Bharat Heavy Electricals Ltd SEAMLESS STEEL TUBE PLANT TIRUCHIRAPALLI - 620014			DRN	NAME P. RAMAKRISHNAN	SIGNATURE <i>[Signature]</i>	DATE 28.12.04	
					CND	SUNILKUMAR	<i>[Signature]</i>	1/1/05	
					APPD	B.SHANMUGASUNDARAM	<i>[Signature]</i>	01/01/05	
DEPT MPG	GRADE OF UNTOL DIM C/M/F		SCALE 1:5	WEIGHT (Kg) 14.5	REF TO ASSY DRG				ITEM NO
CODE					REF TO OLD DRG 309105 1/2-4				
TITLE OUTER WALL SUPPORTING BRICK-IV				CARD CODE U 01	DRAWING NO : 4-7-1101-01-06304				REV 00

ALL DIMENSIONS ARE IN MM

REV	DATE	ALTERED
01		CHECKED
		APPROVED



NOTES:

- 1) THE REFRACTORIES SHALL BE COMPACT, OF HOMOGENEOUS TEXTURE AND FREE FROM CRACKS, VOIDS AND OTHER FLAWS. THEY SHALL BE BURNT EVENLY THROUGHOUT AND SHALL HAVE SUFFICIENT MECHANICAL STRENGTH AND NO SOFT CORNERS.
- 2) ALL CORNERS TO BE MIN. 5mmRADII.

ITEM NO	DESCRIPTION	DRAWING NO	55%-60% AL ₂ O ₃	320
			MATL CODE	UNIT WT
			MATL SPEC	QTY

EQPT: ROTARY HEARTH FURNACE

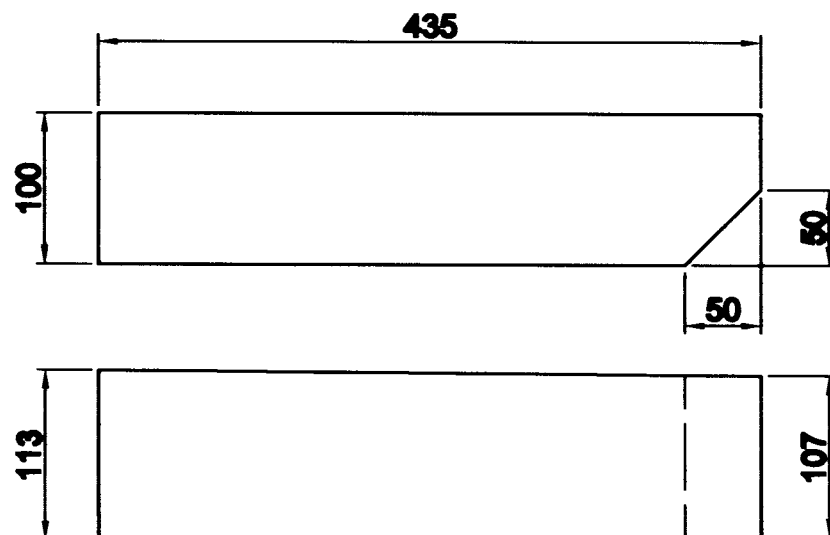
	Bharat Heavy Electricals Ltd		DRN	NAME	SIGNATURE	DATE
	SEAMLESS STEEL TUBE PLANT		CHD	P. RAMAKRISHNAN	<i>[Signature]</i>	28.12.04
	TIRUCHIRAPALLI - 620014		APPD	SANKUMAR	<i>[Signature]</i>	1/1/05

DEPT	GRADE OF UNTO. DIM	SCALE	WEIGHT (Kg)	REF TO ASSY DRG	ITEM NO
MPG	C/M/F	1:5	35.5	REF TO OLD DRG	
CODE				388105 1/2-5	

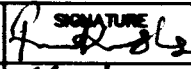
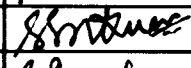
TITLE	CARD CODE	DRAWING NO :	REV
INNER WALL SUPPORTING BRICK	U 01	4-7-1101-01-06305	00

ALL DIMENSIONS ARE IN MM

REV	DATE	ALTERED
01		CHECKED
		APPROVED

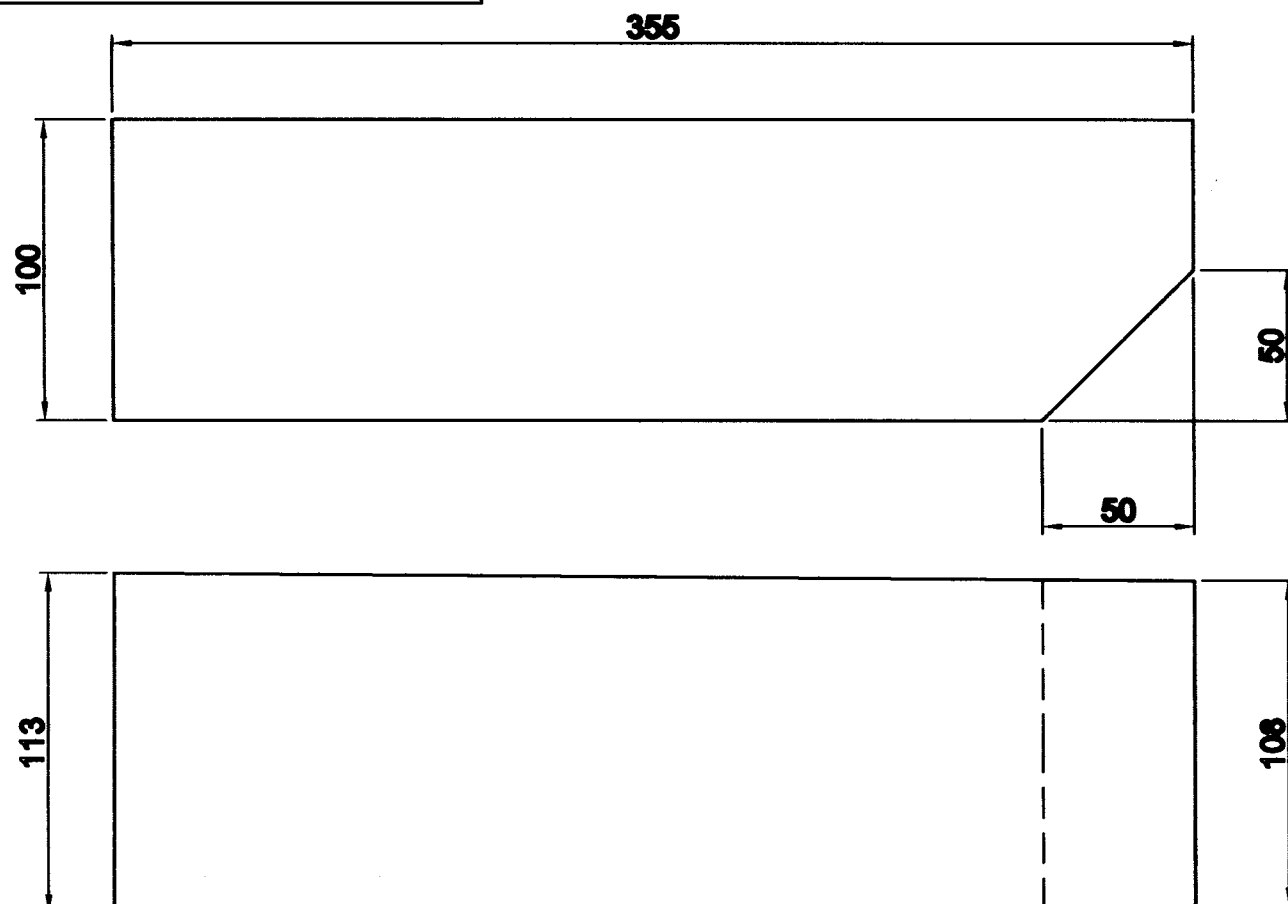
**NOTES:**

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- 2) ALL CORNERS TO BE MIN. 5mmRADII.**

				55%-60% AL ₂ O ₃		480	
ITEM NO	DESCRIPTION	DRAWING NO	MATL CODE		UNIT WT		
			MATL SPEC		QTY		
EQPT: ROTARY HEARTH FURNACE							
		Bharat Heavy Electricals Ltd SEAMLESS STEEL TUBE PLANT TIRUCHIRAPALLI - 620014		DRN	NAME P. RAMAKRISHNAN	SIGNATURE 	DATE 28.12.04
				CHD	SENKUMAR		1/1/05
				APPD	S. SHANMUGASUNDARAM		01/01/05
DEPT MPG	GRADE OF UNTOL DIM C/M/F		SCALE 1:5	WEIGHT (Kg) 12.88	REF TO ASSY DRG		ITEM NO
CODE					REF TO OLD DRG 388105 1/2-8		
TITLE OUTER WALL BASE BRICK-I				CARD CODE U 01	DRAWING NO : 4-7-1101-01-06306		REV 00

ALL DIMENSIONS ARE IN MM

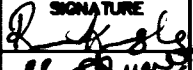
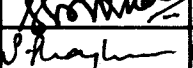
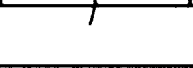
REV 01	DATE	ALTERED
		CHECKED
		APPROVED

**NOTES:**

- 1) THE REFRACTORIES SHALL BE COMPACT, OF HOMOGENEOUS TEXTURE AND FREE FROM CRACKS, VOIDS AND OTHER FLAWS. THEY SHALL BE BURNT EVENLY THROUGHOUT AND SHALL HAVE SUFFICIENT MECHANICAL STRENGTH AND NO SOFT CORNERS.
- 2) ALL CORNERS TO BE MIN. 5mmRADII.

			55%-60% Al_2O_3	460
ITEM NO	DESCRIPTION	DRAWING NO	MATL CODE	UNIT WT
			MATL SPEC	QTY

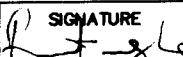
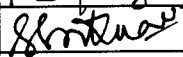
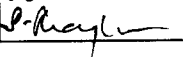
EQPT: **ROTARY HEARTH FURNACE**

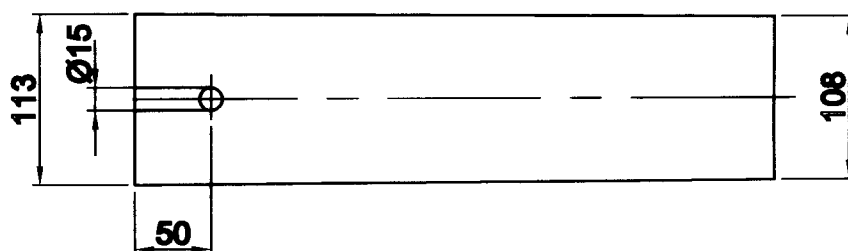
		Bharat Heavy Electricals Ltd SEAMLESS STEEL TUBE PLANT TIRUCHIRAPALLI - 620014		DRN	NAME P. RAMAKRISHNAN	SIGNATURE 	DATE 28.12.04
				CHD	SONIKUMAR		1/1/05
				APPD	S.SHANMUGASUNDARAM		31/01/05
DEPT MPG	GRADE OF UNTOL DIM C/M/F		SCALE 1:2.5	WEIGHT (Kg) 10.3	REF TO ASSY DRG		ITEM NO
CODE					REF TO OLD DRG 388105 1/2-7		
TITLE OUTER WALL BASE BRICK-II				CARD CODE U 01	DRAWING NO : 4-7-1101-01-06307		REV 00

Technical drawing of a rectangular plate with the following dimensions and features:

- Length: 420
- Width: 113
- Thickness: 10
- Hole diameter: $\varnothing 15$
- Hole position: 75 from the top edge, 50 from the left edge.

- 1) THE REFRACTORIES SHALL BE COMPACT, OF HOMOGENEOUS TEXTURE AND FREE FROM CRACKS, VOIDS AND OTHER FLAWS. THEY SHALL BE BURNT EVENLY THROUGHOUT AND SHALL HAVE SUFFICIENT MECHANICAL STRENGTH AND NO SOFT CORNERS.
- 2) ALL CORNERS TO BE MIN. 5mmRADII.

						55%-60% AL ₂ O ₃	94	
ITEM NO	DESCRIPTION	DRAWING NO	MATL CODE			UNIT WT		
			MATL SPEC			QTY		
EQPT: ROTARY HEARTH FURNACE								
		Bharat Heavy Electricals Ltd SEAMLESS STEEL TUBE PLANT TIRUCHIRAPALLI - 620014		DRN	NAME P. RAMAKRISHNAN	SIGNATURE 	DATE 29.12.04	
				CHD	SSN.KUMAR		11/1/05	
				APPD	S.SHANMUGASUNDARAM		01/01/05	
DEPT MPG	GRADE OF UNTOLE DIM C/M/F		SCALE 1:2.5	WEIGHT (Kg) 8.78	REF TO ASSY DRG			ITEM NO
CODE					REF TO OLD DRG 358105 1/2-8			
TITLE OUTER WALL ANCHOR BRICK-I				CARD CODE U 01	DRAWING NO : 4-7-1101-01-06308			REV 00

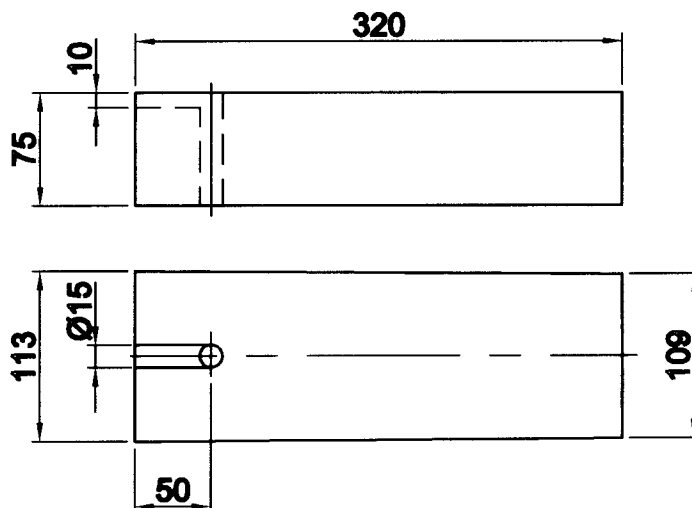


- 1) THE REFRACTORIES SHALL BE COMPACT, OF HOMOGENEOUS TEXTURE AND FREE FROM CRACKS, VOIDS AND OTHER FLAWS. THEY SHALL BE BURNT EVENLY THROUGHOUT AND SHALL HAVE SUFFICIENT MECHANICAL STRENGTH AND NO SOFT CORNERS.
- 2) ALL CORNERS TO BE MIN. 5mmRADII.

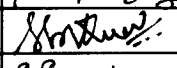
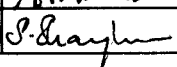
[illegible]

ALL DIMENSIONS ARE IN MM

REV 01	DATE	ALTERED
		CHECKED
		APPROVED

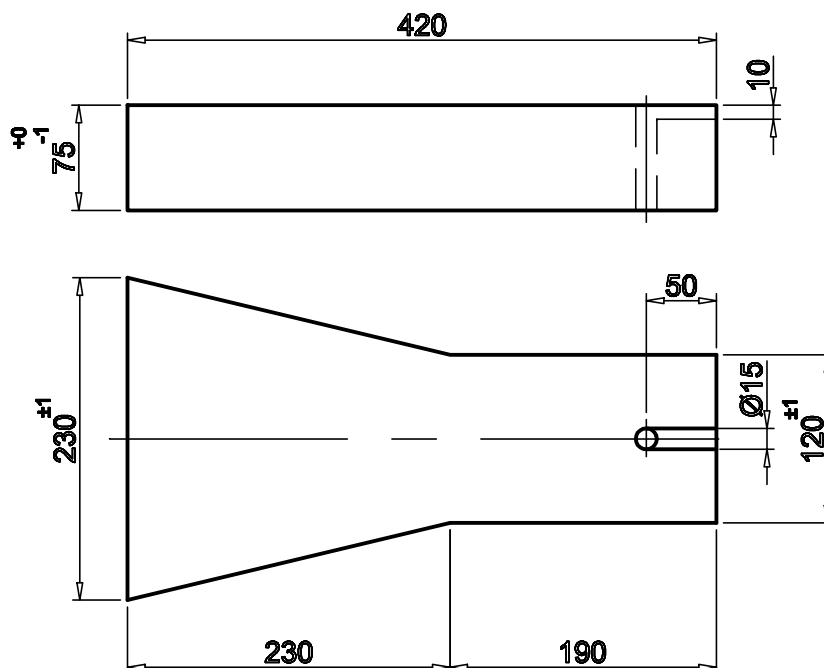
**NOTES:**

- 1) THE REFRACTORIES SHALL BE COMPACT, OF HOMOGENEOUS TEXTURE AND FREE FROM CRACKS, VOIDS AND OTHER FLAWS. THEY SHALL BE BURNT EVENLY THROUGHOUT AND SHALL HAVE SUFFICIENT MECHANICAL STRENGTH AND NO SOFT CORNERS.
- 2) ALL CORNERS TO BE MIN. 5mmRADII.

				55%-60% AL ₂ O ₃		94
ITEM NO	DESCRIPTION	DRAWING NO		MATL CODE		UNIT WT
				MATL SPEC		QTY
EQPT: ROTARY HEARTH FURNACE						
 Bharat Heavy Electricals Ltd SEAMLESS STEEL TUBE PLANT TIRUCHIRAPALLI - 620014		DRN	NAME P. RAMAKRISHNAN	SIGNATURE 	DATE 29.12.04	
		CHD	SSN.KUMAR		1/1/05	
		APPD	S.SHANMUGASUNDARAM		01/01/05	
DEPT MPG	GRADE OF UNTOL. DIM C/M/F	SCALE  1:5	WEIGHT (Kg) 6.6	REF TO ASSY DRG		ITEM NO
CODE				REF TO OLD DRG 358105 1/2-10		
TITLE OUTER WALL ANCHOR BRICK-III			CARD CODE U 01	DRAWING NO : 4-7-1101-01-06310		REV 00

ALL DIMENSIONS ARE IN MM

REV 01	DATE 01.09.14	ALTERED	<i>M. Ganesan</i>
		CHECKED	<i>R. K. Singh</i>
		APPROVED	<i>S. Loganathan</i>
New border inserted			



NOTES:

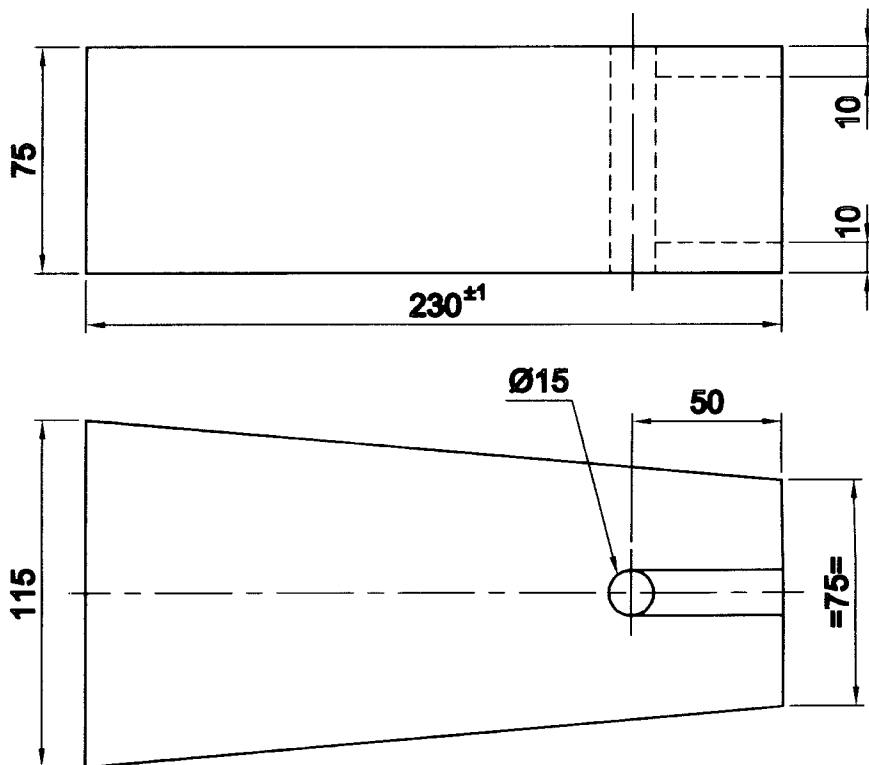
- 1) THE REFRACTORIES SHALL BE COMPACT, OF HOMOGENEOUS TEXTURE AND FREE FROM CRACKS, VOIDS AND OTHER FLAWS. THEY SHALL BE BURNT EVENLY THROUGHOUT AND SHALL HAVE SUFFICIENT MECHANICAL STRENGTH AND NO SOFT CORNERS.**
- 2) ALL CORNERS TO BE MIN. 5mmRADII.**

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

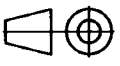
			55%-60% Al_2O_3		400		
ITEM NO	DESCRIPTION	DRAWING NO	MATL CODE		UNIT WT		
			MATL SPEC		QTY		
EQPT: ROTARY HEARTH FURNACE							
 Bharat Heavy Electricals Ltd SEAMLESS STEEL TUBE PLANT TIRUCHIRAPALLI – 620014		DRN	NAME P. RAMAKRISHNAN	SIGNATURE <i>P. Ramakrishnan</i>	DATE 29.12.04		
		CHD	SSN.KUMAR	<i>SSN. Kumar</i>	29.12.04		
		APPD	S.S.SUNDARAM	<i>S. S. Sundaram</i>	29.12.04		
DEPT SSTP	GRADE OF UNTOL. DIM $\phi/M/F$ IS: 2102		SCALE 1:5	WEIGHT (Kg) 11.8	REF TO ASSY DWG NO —	ITEM —	
CODE 456			REF TO OLD DWG NO 358105 1/2–11				
TITLE RHF - ANCHOR BRICK				CARD CODE U 01	DRAWING NO : 4-7-1101-01-06311		REV 01

A4-SIZE

REV 01	DATE 29.12.04	ALTERED	SSN.KUMAR
		CHECKED	
		APPROVED	S.Shanmugasunderam
DRG. REVISED AS PER WESMAN'S REVISION			

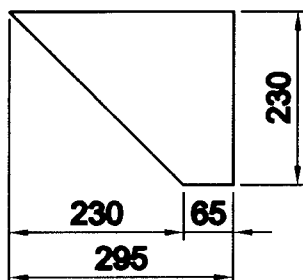
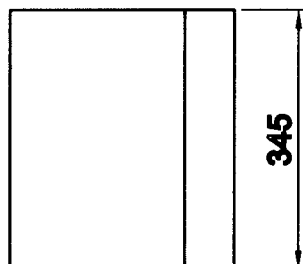
**NOTES:**

- 1) THE REFRACTORIES SHALL BE COMPACT, OF HOMOGENEOUS TEXTURE AND FREE FROM CRACKS, VOIDS AND OTHER FLAWS. THEY SHALL BE BURNT EVENLY THROUGHOUT AND SHALL HAVE SUFFICIENT MECHANICAL STRENGTH AND NO SOFT CORNERS.
- 2) ALL CORNERS TO BE MIN. 3mmRADI.
- 3) TOLERANCE ON SIZE $\begin{smallmatrix} +0 \\ -1 \end{smallmatrix}$

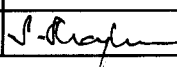
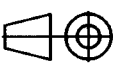
ITEM NO	DESCRIPTION	DRAWING NO	55% AL ₂ O ₃		200	
			MATL CODE		UNIT WT	
			MATL SPEC		QTY	
EQPT: WALKING BEAM FURNACE						
 Bharat Heavy Electricals Ltd SEAMLESS STEEL TUBE PLANT TIRUCHIRAPALLI - 620014		DRN	NAME SSN.KUMAR	SIGNATURE S.N.Kumar	DATE 28.12.04	
		CHD				
		APPD	S.Shanmugasunderam	S. Shanmugasunderam	28/12/04	
DEPT MPG	GRADE OF UNTOL. DIM C/M/F		SCALE 1:10	WEIGHT (Kg) 3	REF TO ASSY DRG	
CODE					REF TO OLD DRG FA-0428-1B/8	
TITLE WALL ANCHOR			CARD CODE U 01	DRAWING NO : 4-7-1150-01-06298	REV 01	

REV 01	DATE 28.12.04	ALTERED	SSN.KUMAR
		CHECKED	
		APPROVED	S.Shanmugasunderam

DRG. REVISED AS PER
WESMAN'S REVISION

**NOTES:**

- 1) THE REFRACTORIES SHALL BE COMPACT, OF HOMOGENEOUS TEXTURE AND FREE FROM CRACKS, VOIDS AND OTHER FLAWS. THEY SHALL BE BURNT EVENLY THROUGHOUT AND SHALL HAVE SUFFICIENT MECHANICAL STRENGTH AND NO SOFT CORNERS.
- 2) ALL CORNERS TO BE MIN. 3mmRADII.
- 3) TOLERANCE ON SIZE ± 0.1

				55% AL ₂ O ₃	34			
ITEM NO	DESCRIPTION	DRAWING NO	MATL CODE		UNIT WT			
			MATL SPEC		QTY			
EQPT: WALKING BEAM FURNACE								
 Bharat Heavy Electricals Ltd SEAMLESS STEEL TUBE PLANT TIRUCHIRAPALLI - 620014			DRN	NAME SSN.KUMAR	SIGNATURE SSN.Kumar	DATE 28.12.04		
			CHD					
			APPD	S.Shanmugasunderam		28/12/04		
DEPT MPG	GRADE OF UNTOL DIM C/M/F		SCALE 1:10	WEIGHT (Kg) 34.2	REF TO ASSY DRG		ITEM NO	
CODE					REF TO OLD DRG FA-0428-1B/6			
TITLE FLUE DOWN TAKE CORNER BRICK				CARD CODE U 01	DRAWING NO : 4-7-1150-01-06299		REV 01	