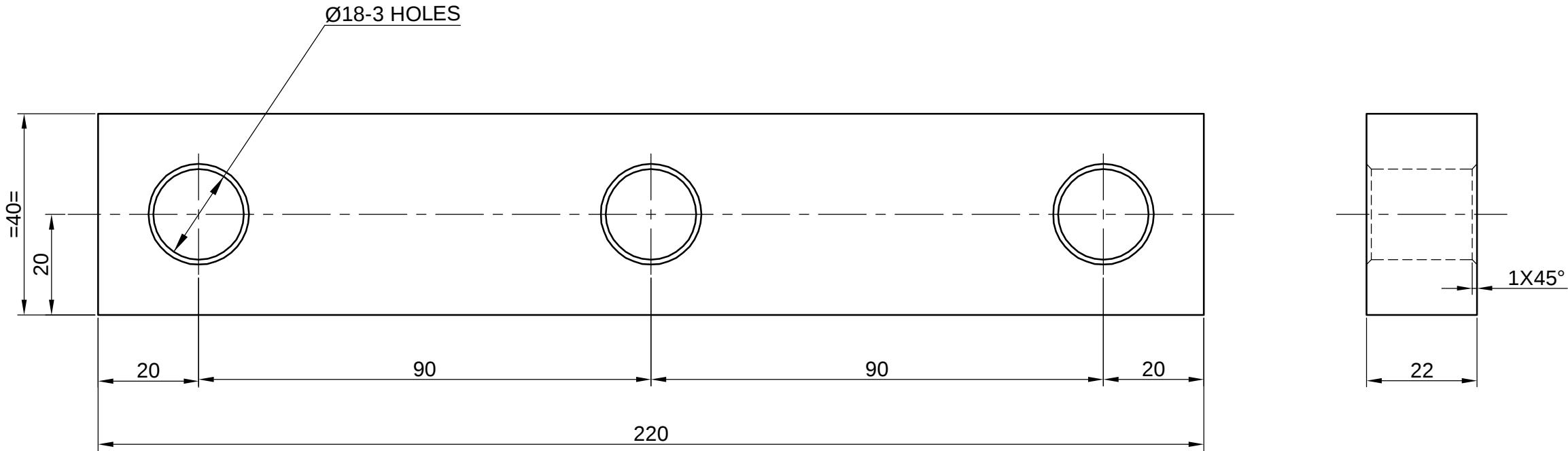


ALL DIMENSIONS ARE IN MILLIMETRES

DRAWING NO.: 3-7-1123-42-10388

Ra 3.2



NOTE:
ALL SHARP CORNERS CHAMFERED TO 1x45°
CASE HARDENED TO 60 ^{±2} HRC
CASE HARDENED 0.8 TO 1mm.

REV	DATE	ALTERED
01		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 WAY DETRIMENTAL TO THE INTEREST OF THE COMPANY.

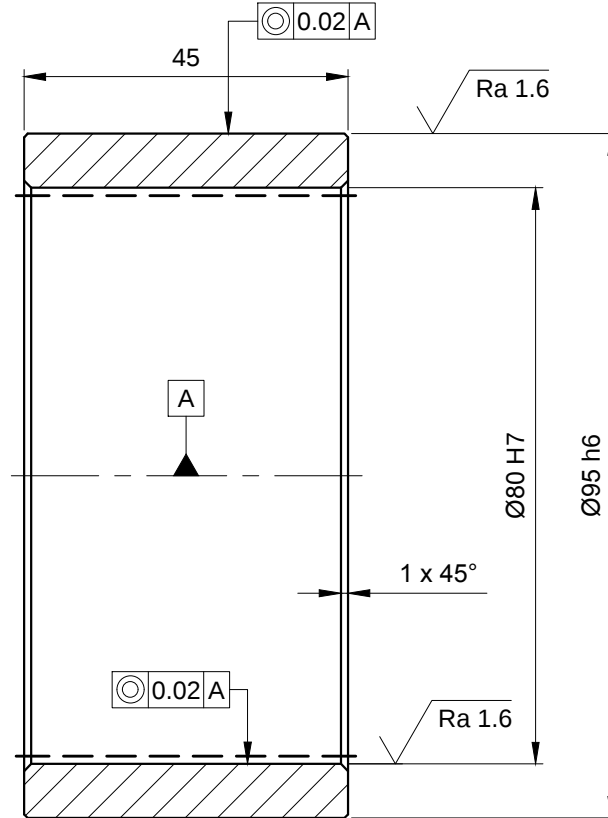
			16Mn5Cr4 IS:4432				
ITEM NO	DESCRIPTION	DRAWING NO	MATL CODE		UNIT WT		
			MATL SPEC		QTY		
EQPT: CROSS PIERCING AND ELONGATION							
	Bharat Heavy Electricals Ltd SEAMLESS STEEL TUBE PLANT TIRUCHIRAPALLI – 620014		DRN	NAME S.S.N.KUMAR/M.D	SIGNATURE <i>S.S.N.Kumar/M.D</i>	DATE 26.03.19	
			CHD	S.S.N.KUMAR	<i>S.S.N.Kumar</i>	26.03.19	
			APPD	D.ABHIGNA	<i>D.Abhigna</i>	26.03.19	
DEPT SSTP	GRADE OF UNTOL. DIM		SCALE	WEIGHT (Kg)	REF TO ASSY DWG NO		ITEM
CODE 456	φ / M / # IS: 2102		1:1	1.37	REF TO OLD DWG NO 0101056–42.000		57
TITLE			CARD CODE U 01	DRAWING NO :			REV
CPE-WEDGE LOCKING DEVICE ASSY.				3-7-1123-42-10388			00

ALL DIMENSIONS ARE IN MM

REV	DATE	ALTERED
01		CHECKED
		APPROVED

$\sqrt{Ra\ 3.2}$ ($\sqrt{Ra\ 1.6}$)

SIZE	DEVIATION
Ø80 H7	+0.030 0.000
Ø95 h6	0.000 -0.022



NOTE:

1. ALL UNSPECIFIED CHAMFERS TO 0.5 X 45°.
2. — — — CASE HARDENED TO HRC 60±2.
3. SURFACE TO BE GROUND AFTER HARDENING CASE DEPTH 1.2±0.2mm.

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.

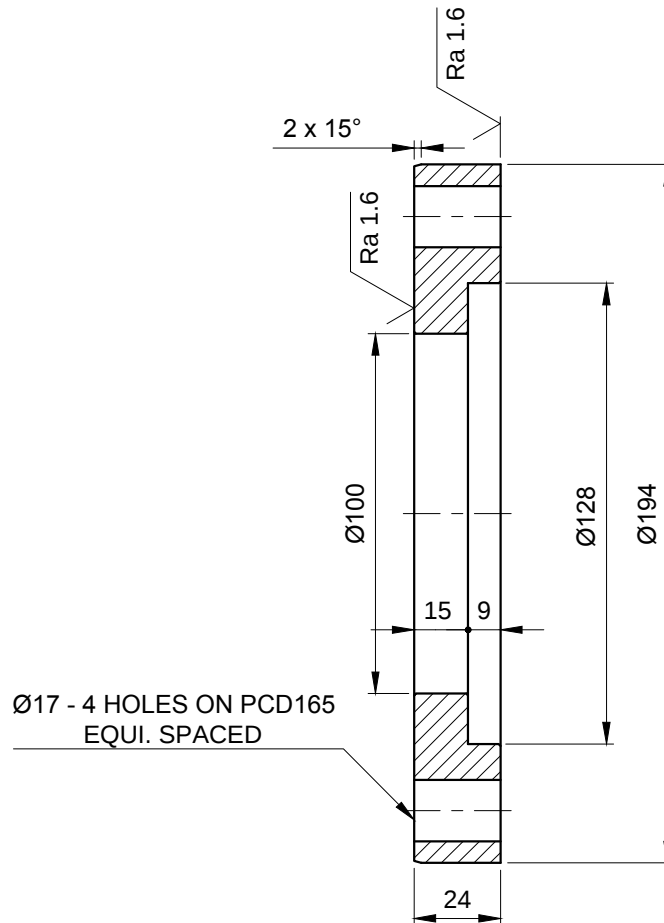
	RO 100 x 45		42Cr4Mo2 IS:5517	06		
ITEM NO	DESCRIPTION	DRAWING NO	MATL CODE	UNIT WT		
			MATL SPEC	QTY		
EQPT: CROSS PIERCING AND ELONGATION						
 Bharat Heavy Electricals Ltd SEAMLESS STEEL TUBE PLANT TIRUCHIRAPALLI – 620014		DRN	NAME S.S.N.KUMAR/ A.S	SIGNATURE <i>S.S.N.Kumar/ A.S</i>	DATE 18/11/14	
		CHD	R.K.SINGH	<i>R.K.Singh</i>	18/11/14	
		APPD	G.LOGANATHAN	<i>G.Loganathan</i>	18/11/14	
DEPT SSTP	GRADE OF UNTOL. DIM Ø/√/F IS:2102		SCALE 1:1	WEIGHT (Kg) 0.7	REF TO ASSY DWG NO	ITEM
CODE 456					REF TO OLD DWG NO 0101056-43.000-04	32
TITLE CPE - BUSH 3-ROLLER GUIDE			CARD CODE U 01	DRAWING NO : 4-7-1123-43-10372		REV 00

A4-SIZE

ALL DIMENSIONS ARE IN MM

REV	DATE	ALTERED
01		CHECKED
		APPROVED

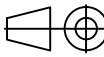
$\sqrt{Ra\ 3.2}$ ($\sqrt{Ra\ 1.6}$)



NOTE:

UNSPECIFIED CHAMFERS ARE TAKEN AS 0.5 x 45°

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.

			45C8 IS:1875		03	
ITEM NO	DESCRIPTION	DRAWING NO	MATL CODE		UNIT WT	
			MATL SPEC		QTY	
EQPT: CROSS PIERCING AND ELONGATION						
 Bharat Heavy Electricals Ltd SEAMLESS STEEL TUBE PLANT TIRUCHIRAPALLI – 620014		DRN	NAME S.S.N.KUMAR/ A.S	SIGNATURE S.S.N.Kumar/ A.S	DATE 14/11/14	
		CHD	R.K.SINGH	R.K. Singh	14/11/14	
		APPD	G.LOGANATHAN	G. Loganathan	14/11/14	
DEPT SSTP	GRADE OF UNTOL. DIM  Ø/M/F IS: 2102	SCALE 1:2	WEIGHT (Kg) 3.5	REF TO ASSY DWG NO		ITEM 33
CODE 456				REF TO OLD DWG NO 0101056-43.000-03		
TITLE CPE - COVER 3-ROLLER GUIDE			CARD CODE U 01	DRAWING NO : 4-7-1123-43-10354		REV 00

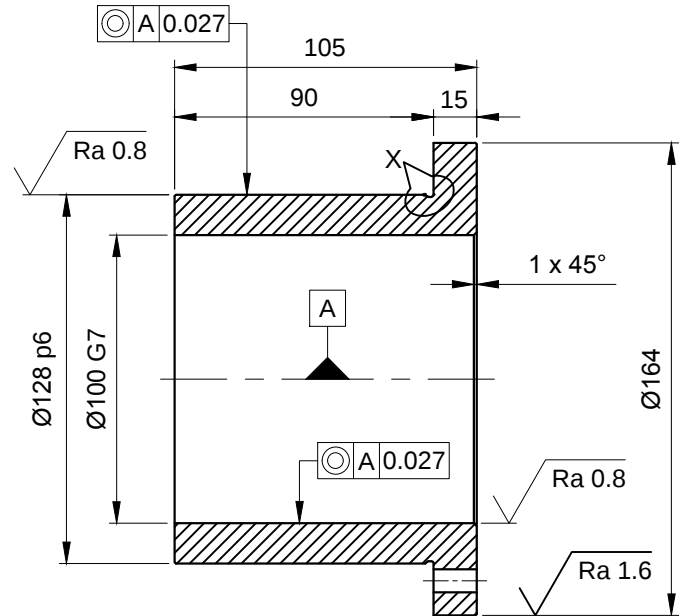
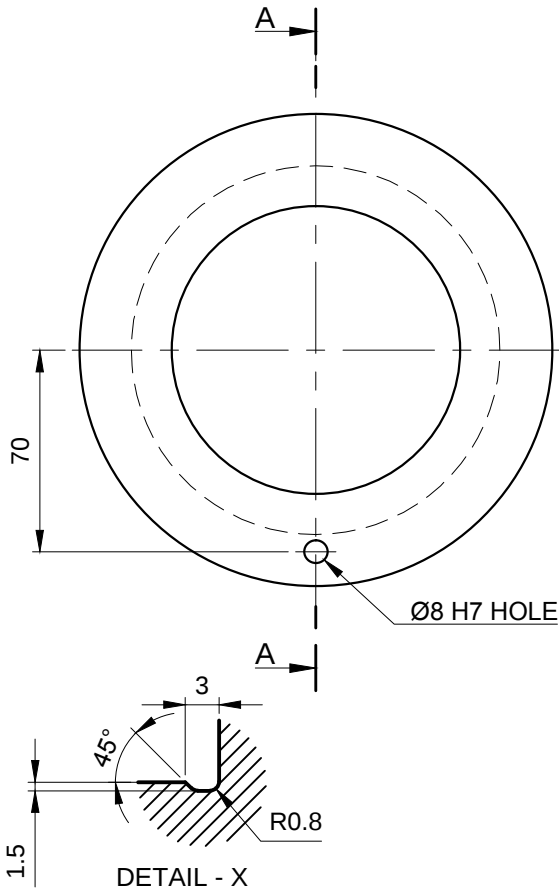
A4-SIZE

ALL DIMENSIONS ARE IN MM

REV	DATE	ALTERED
01		CHECKED
		APPROVED

$\sqrt{Ra\ 3.2}$
 $\left(\sqrt{Ra\ 1.6}\ \sqrt{Ra\ 0.8}\right)$

SIZE	DEVIATION
Ø128 p6	+0.068 +0.043
Ø100 G7	+0.047 +0.012
Ø8 H7	+0.015 0.000



SECTION - AA

NOTE:

1. ALL UNSPECIFIED CHAMFERS TO 0.5 X 45°.
2. MATERIAL: 42CrMo4+QT (QUENCHED & TEMPERED)

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.

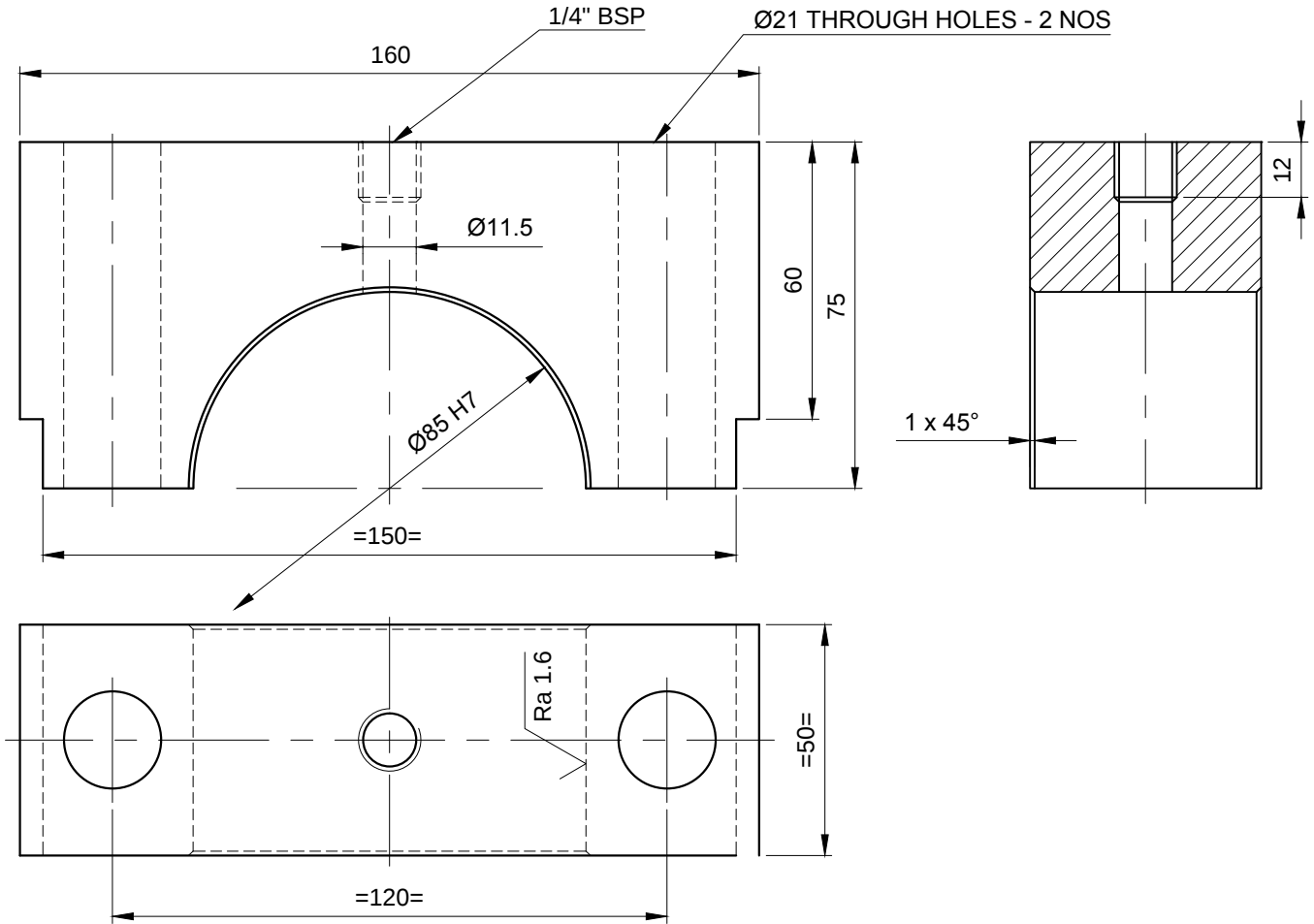
ITEM NO	DESCRIPTION	DRAWING NO	MATL CODE	UNIT WT
			MATL SPEC	QTY
EQPT: CROSS PIERCING AND ELONGATION				
		Bharat Heavy Electricals Ltd SEAMLESS STEEL TUBE PLANT TIRUCHIRAPALLI - 620014		
DEPT	GRADE OF UNTOL. DIM	SCALE	WEIGHT (Kg)	REF TO ASSY DWG NO
SSTP	IS: 2102	1:2.5	5.0	REF TO OLD DWG NO
CODE				0101056-43.000-03
456				
TITLE		CARD CODE	DRAWING NO :	REV
CPE - COLLAR BUSH		U 01	4-7-1123-43-10350	00
3-ROLLER GUIDE				

A4-SIZE

ALL DIMENSIONS ARE IN MILLIMETRES

DRAWING NO: 3-7-1123-43-10262

$\sqrt{\text{Ra 3.2}}$ ($\sqrt{\text{Ra 1.6}}$)	
SIZE	DEVIATION
Ø85 H7	+0.035 0.000

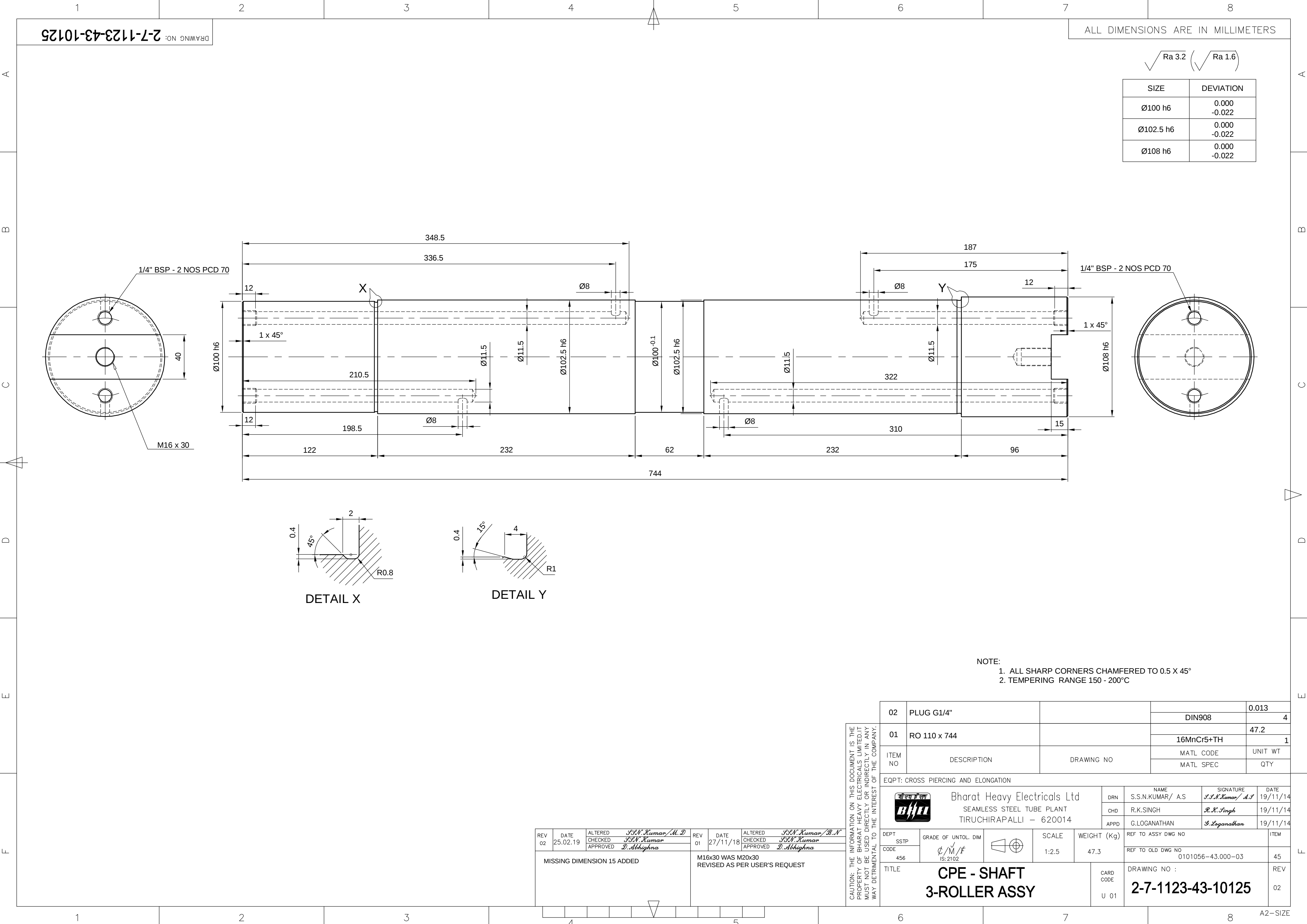


NOTE:
ALL SHARP CORNERS CHAMFERED TO 0.5 x 45°

REV	DATE	ALTERED
01		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 WAY DETRIMENTAL TO THE INTEREST OF THE COMPANY.

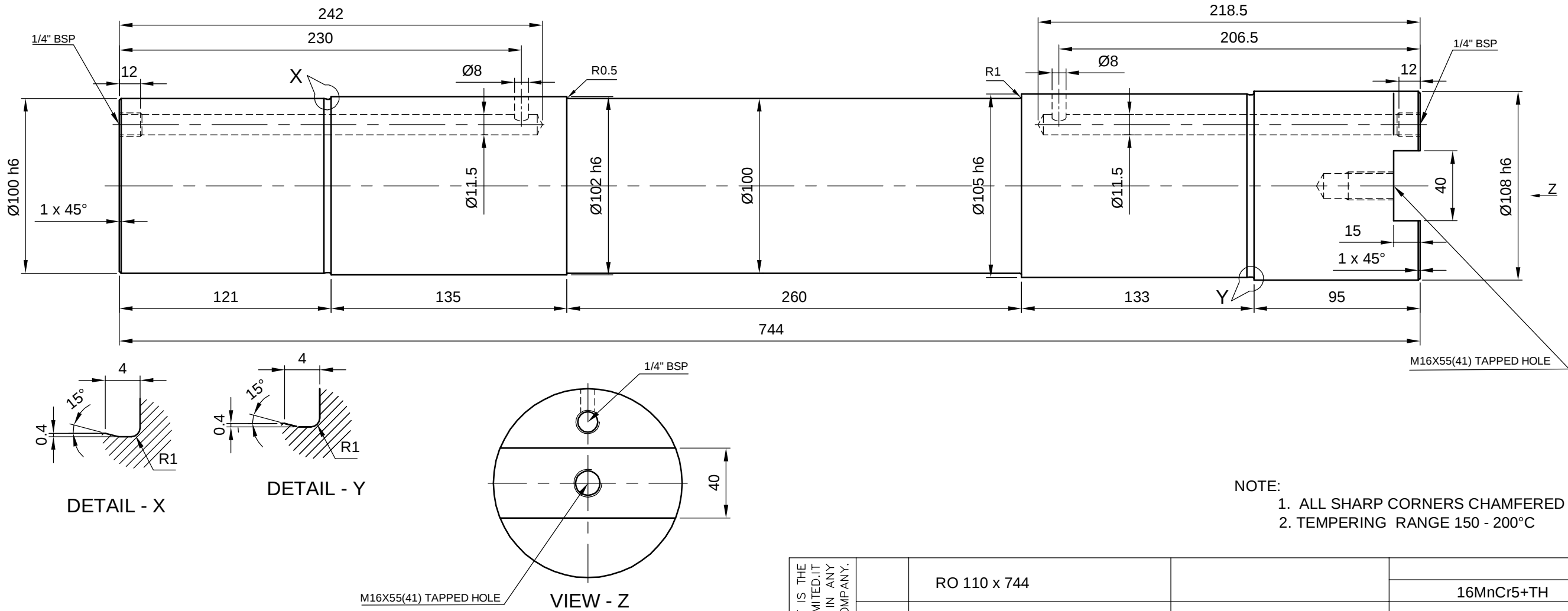
	PL 160 x 75 x 50		ISO E235B (or) IS:Fe360B	04		
ITEM NO	DESCRIPTION	DRAWING NO	MATL CODE	UNIT WT		
			MATL SPEC	QTY		
EQPT: CROSS PIERCING AND ELONGATION						
	Bharat Heavy Electricals Ltd SEAMLESS STEEL TUBE PLANT TIRUCHIRAPALLI – 620014	DRN	NAME S.S.N.KUMAR/ A.S	SIGNATURE S.S.N.Kumar/ A.S	DATE 24/11/14	
		CHD	R.K.SINGH	R.K. Singh	24/11/14	
		APPD	G.LOGANATHAN	G. Loganathan	24/11/14	
DEPT SSTP	GRADE OF UNTOL. DIM		SCALE	WEIGHT (Kg)	REF TO ASSY DWG NO	ITEM
CODE 456	Ø/M/℄ IS:2102		1:1.5	4.0	REF TO OLD DWG NO 0101056-43.000-03	43
TITLE CPE - BEARING CAP 3-ROLLER GUIDE			CARD CODE U 01	DRAWING NO : 3-7-1123-43-10262		REV 00



ALL DIMENSIONS ARE IN MILLIMETRES

3-7-1123-43-10261

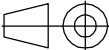
√ Ra 3.2 (√ Ra 1.6)	
SIZE	DEVIATION
Ø100 h6	0.000 -0.022
Ø102 h6	0.000 -0.022
Ø105 h6	0.000 -0.022
Ø108 h6	0.000 -0.022



NOTE:
1. ALL SHARP CORNERS CHAMFERED TO 0.5 X 45°
2. TEMPERING RANGE 150 - 200°C

REV	DATE	ALTERED	BY
01	26.02.19	CHECKED	P.N. Kumar
		APPROVED	D. Abhishek
MISSING DIMENSION 15 ADDED			

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.

	RO 110 x 744		16MnCr5+TH	02		
ITEM NO	DESCRIPTION	DRAWING NO	MATL CODE	UNIT WT		
			MATL SPEC	QTY		
EQPT: CROSS PIERCING AND ELONGATION						
	Bharat Heavy Electricals Ltd SEAMLESS STEEL TUBE PLANT TIRUCHIRAPALLI — 620014		NAME	SIGNATURE	DATE	
			DRN	S.S.N.KUMAR/ A.S	S.P.N.Kumar/ A.S	19/11/14
			CHD	R.K.SINGH	R.K. Singh	19/11/14
			APPD	G.LOGANATHAN	G.Loganathan	19/11/14
DEPT SSTP	GRADE OF UNTOL. DIM φ/M/£ IS: 2102		SCALE 1:2.5	WEIGHT (Kg) 47.0	REF TO ASSY DWG NO	ITEM
CODE 456					REF TO OLD DWG NO 0101056-43.000-03	
TITLE CPE - SHAFT 3-ROLLER GUIDE			CARD CODE U 01	DRAWING NO : 3-7-1123-43-10261	REV 01	

A3-SIZE

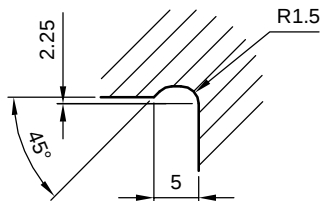
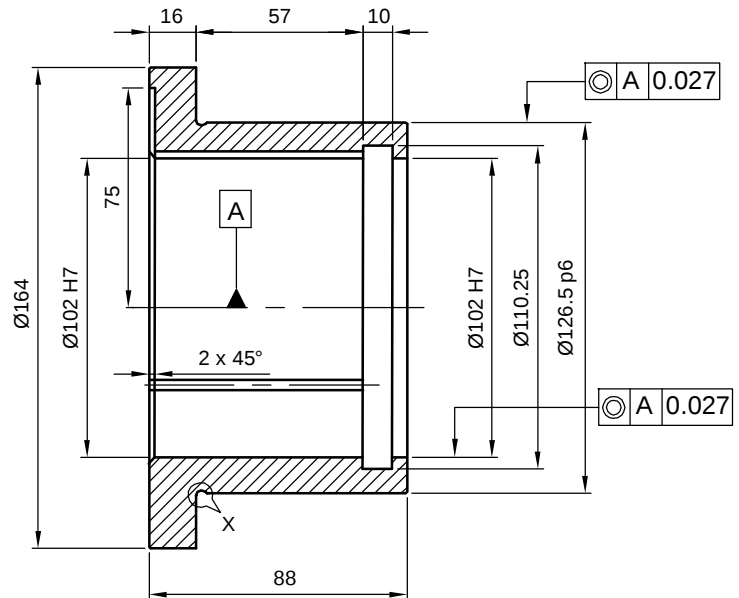
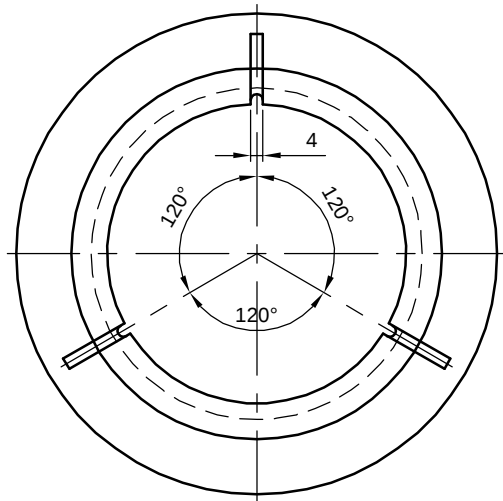
ALL DIMENSIONS ARE IN MM

REV 01	DATE 06.03.19	ALTERED	<i>S.S.N. Kumar / M.D</i>
		CHECKED	<i>S.S.N. Kumar</i>
		APPROVED	<i>D. Abhighna</i>

√ Ra 3.2 (√ Ra 0.8)

BORE DIAMETER 102 H7 WAS Ø102.5 H7
REVISED AS PER USER'S REQUEST

SIZE	DEVIATION
Ø102 H7	+0.035 0.000
Ø126.5 p6	+0.068 +0.043



DETAIL - X

NOTE:

1. ALL UNSPECIFIED CHAMFERS TO 0.5 X 45°.
2. CASTING SHOULD BE FREE FROM HARMFUL INCLUSION & CRACKS.

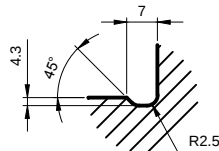
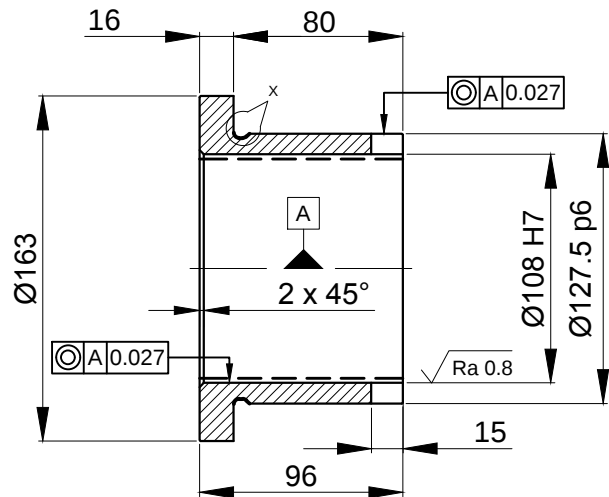
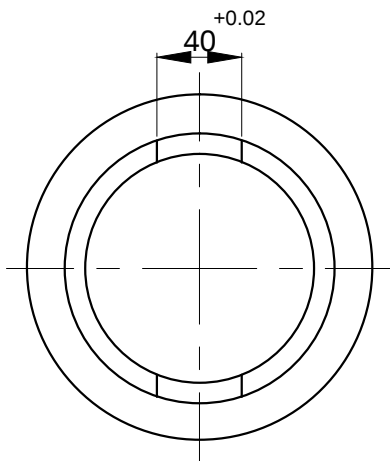
CAUTION: THE INFORMATION ON THIS DOCUMENT IS THE PROPERTY OF BHARAT HEAVY ELECTRICALS LIMITED. IT MUST NOT BE USED DIRECTLY OR INDIRECTLY IN ANY WAY DETRIMENTAL TO THE INTEREST OF THE COMPANY.

			GZ-CuSn12		01	
ITEM NO	DESCRIPTION	DRAWING NO	MATL CODE		UNIT WT	
			MATL SPEC		QTY	
EQPT: CROSS PIERCING AND ELONGATION						
 Bharat Heavy Electricals Ltd SEAMLESS STEEL TUBE PLANT TIRUCHIRAPALLI – 620014		DRN	NAME S.S.N.KUMAR/ A.S	SIGNATURE <i>S.S.N.Kumar/ A.S</i>	DATE 12/11/14	
		CHD	R.K.SINGH	<i>R.K. Singh</i>	12/11/14	
		APPD	G.LOGANATHAN	<i>G. Loganathan</i>	12/11/14	
DEPT SSTP	GRADE OF UNTOL. DIM  IS: 2102		SCALE 1:2	WEIGHT (Kg) 3.5	REF TO ASSY DWG NO	ITEM
CODE 456					REF TO OLD DWG NO 0101056-43.000-03	
TITLE CPE - COLLAR BUSH 3-ROLLER GUIDE			CARD CODE U 01	DRAWING NO : 4-7-1123-43-10349		REV 01

ALL DIMENSIONS ARE IN MM

REV 01	DATE 02.04.18	ALTERED S.N.Kumar / B.N
		CHECKED D.chandrasekar
		APPROVED D.chandrasekar
SIDE VIEW ADDED		

SIZE	DEVIATION
Ø108 H7	+0.035 0.000
Ø127.5 p6	+0.068 +0.043



DETAILS X

NOTE:

1. ALL UNSPECIFIED CHAMFERS TO 0.5 X 45°.
2. CASE HARDENED TO HRC 60±2.
3. SURFACE TO BE GROUND AFTER HARDENING
CASE DEPTH 1.2±0.2mm.

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.

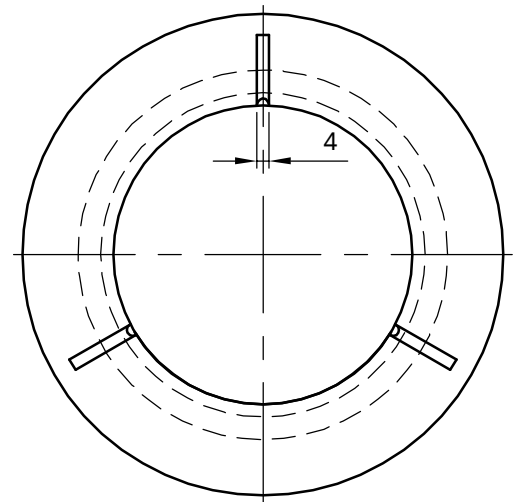
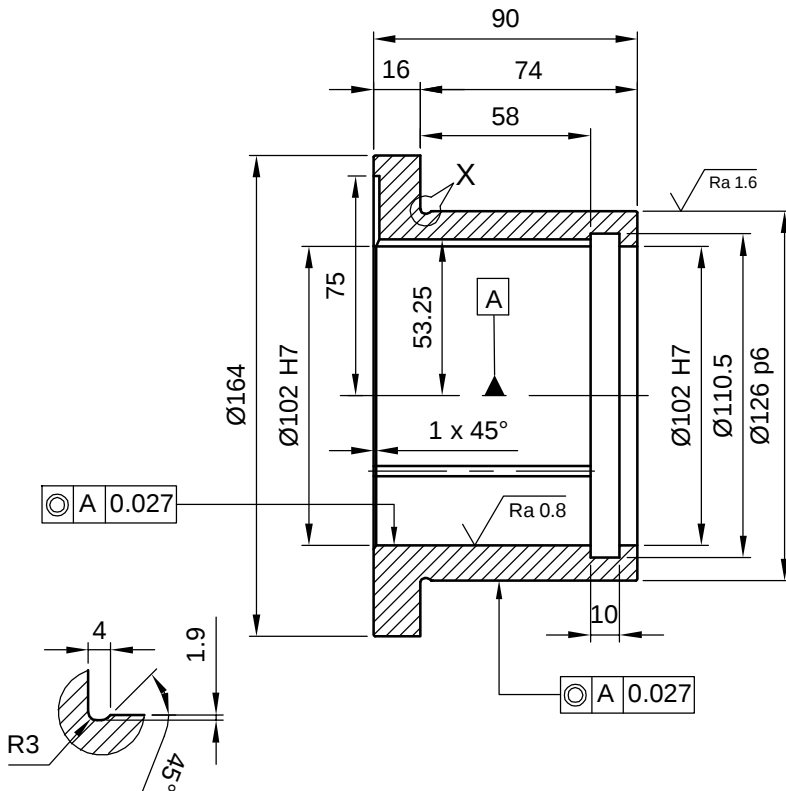
ITEM NO	DESCRIPTION	DRAWING NO	MATL CODE	UNIT WT
			MATL SPEC	QTY
EQPT: CROSS PIERCING AND ELONGATION				
		Bharat Heavy Electricals Ltd SEAMLESS STEEL TUBE PLANT TIRUCHIRAPALLI - 620014		
DEPT SSTP	GRADE OF UNTOL. DIM	SCALE	WEIGHT (Kg)	REF TO ASSY DWG NO
CODE 456	$\phi/M/\#$ IS: 2102	1:2	3.5	REF TO OLD DWG NO 0101056-43000-03
TITLE		DRAWING NO :		REV
CPE - COLLAR BUSH		4-7-1123-43-10344		01
3-ROLLER GUIDE		CARD CODE U 01		

ALL DIMENSIONS ARE IN MM

REV 01	DATE 26.02.19	ALTERED	<i>S.S.N. Kumar / M. D</i>
		CHECKED	<i>S.S.N. Kumar</i>
		APPROVED	<i>D. Abhighna</i>
BORE DIAMETER 102 H7 WAS Ø102.5 H7 REVISED AS PER USER'S REQUEST			

√ Ra 3.2 (√ Ra 1.6 √ Ra 0.8)

SIZE	DEVIATION
Ø102 H7	+0.035 0.000
Ø126 p6	+0.068 +0.043

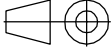


DETAIL - X

NOTE:

1. ALL UNSPECIFIED CHAMFERS TO 0.5 X 45°.
2. CASTING SHOULD BE FREE FROM HARMFUL INCLUSION & CRACKS.

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.

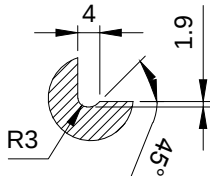
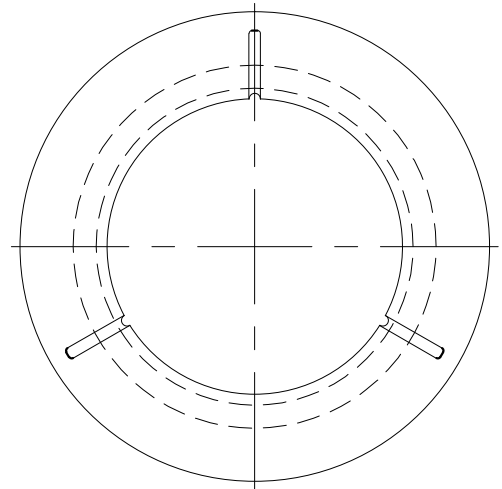
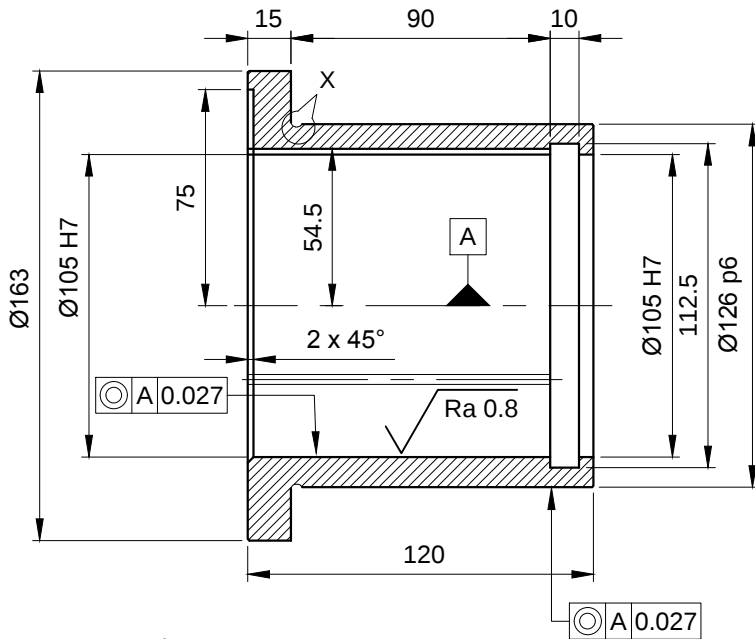
			GZ-CuSn12		01		
ITEM NO	DESCRIPTION	DRAWING NO	MATL CODE		UNIT WT		
			MATL SPEC		QTY		
EQPT: CROSS PIERCING AND ELONGATION							
		Bharat Heavy Electricals Ltd SEAMLESS STEEL TUBE PLANT TIRUCHIRAPALLI – 620014		NAME	SIGNATURE	DATE	
				DRN	S.S.N.KUMAR/ A.S	S.S.N.Kumar/ A.S	11/12/14
				CHD	R.K.SINGH	R.K. Singh	11/12/14
		APPD	G.LOGANATHAN	G.Loganathan	11/12/14		
DEPT SSTP	GRADE OF UNTOL. DIM  IS: 2102		SCALE 1:2	WEIGHT (Kg) 3.8	REF TO ASSY DWG NO	ITEM	
CODE 456					REF TO OLD DWG NO 0101056-43.000-03		
TITLE CPE - COLLAR BUSH 3-ROLLER GUIDE			CARD CODE U 01	DRAWING NO : 4-7-1123-43-10345		REV 01	

ALL DIMENSIONS ARE IN MM

REV	DATE	ALTERED
01		CHECKED
		APPROVED

√ Ra 3.2 (√ Ra 0.8)

SIZE	DEVIATION
Ø105 H7	+0.035 0.000
Ø126 p6	+0.068 +0.043

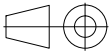


DETAIL - X

NOTE:

1. ALL UNSPECIFIED CHAMFERS TO 0.5 X 45°.
2. CASTING SHOULD BE FREE FROM HARMFUL INCLUSION & CRACKS.

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.

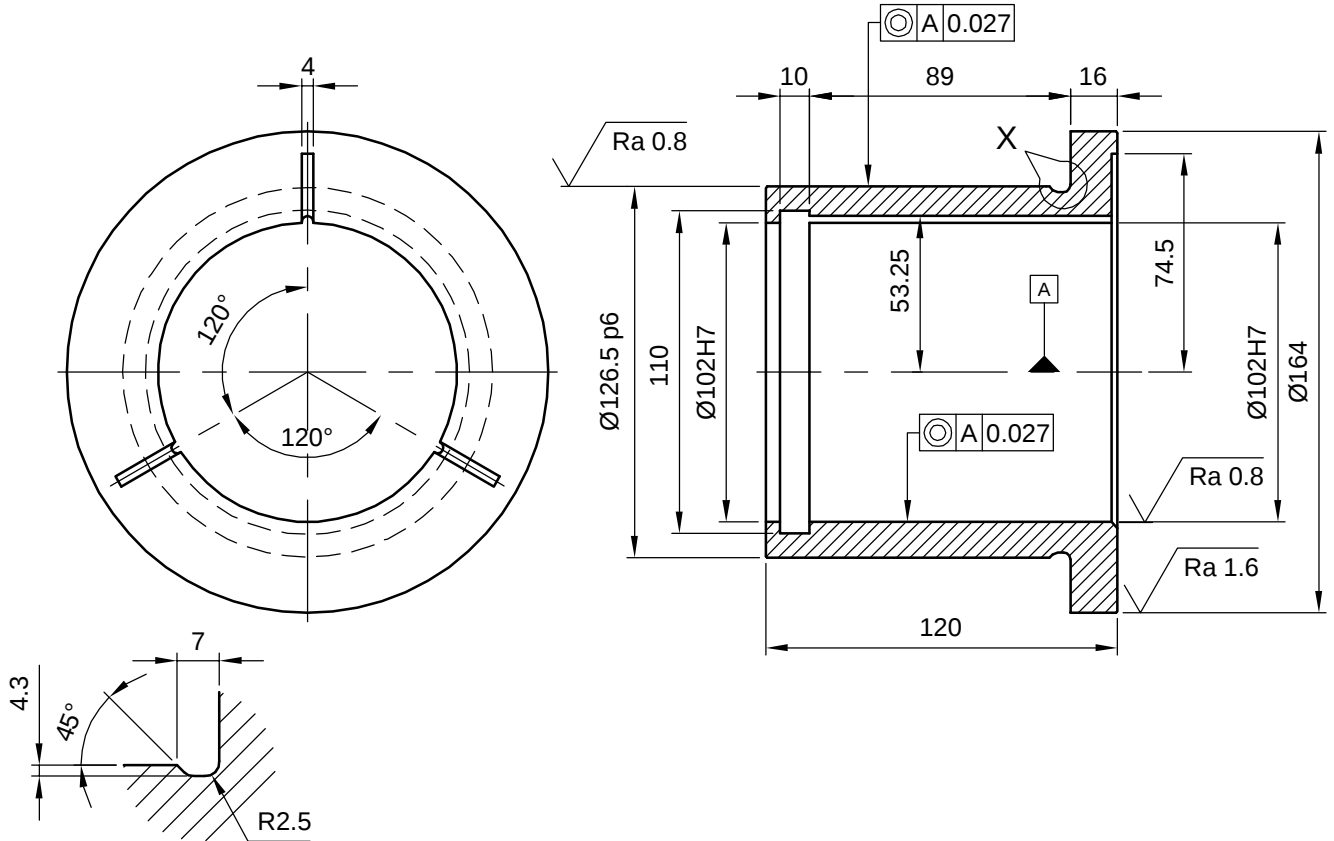
			GZ-CuSn12		03		
ITEM NO	DESCRIPTION	DRAWING NO	MATL CODE		UNIT WT		
			MATL SPEC		QTY		
EQPT: CROSS PIERCING AND ELONGATION							
		Bharat Heavy Electricals Ltd SEAMLESS STEEL TUBE PLANT TIRUCHIRAPALLI – 620014		DRN	NAME S.S.N.KUMAR/ A.S	SIGNATURE <i>S.P.N.Kumar/ A.S</i>	DATE 15/12/14
				CHD	R.K.SINGH	<i>R.K. Singh</i>	15/12/14
				APPD	G.LOGANATHAN	<i>G. Loganathan</i>	15/12/14
DEPT SSTP	GRADE OF UNTOL. DIM  IS: 2102		SCALE 1:2	WEIGHT (Kg) 4.3	REF TO ASSY DWG NO		ITEM
CODE 456					REF TO OLD DWG NO 0101056-43.000-03		54
TITLE CPE - COLLAR BUSH 3-ROLLER GUIDE			CARD CODE U 01	DRAWING NO : 4-7-1123-43-10346		REV 00	

ALL DIMENSIONS ARE IN MM

REV 01	DATE 26.02.19	ALTERED	<i>S.S.N. Kumar / M. D</i>
		CHECKED	<i>S.S.N. Kumar</i>
		APPROVED	<i>D. Abhignna</i>
BORE DIAMETER 102 H7 WAS Ø102.5 G7 REVISED AS PER USER'S REQUEST			

$\sqrt{Ra\ 3.2}$
 $\left(\sqrt{Ra\ 0.8}\ \sqrt{Ra\ 1.6}\right)$

SIZE	DEVIATION
Ø102 H7	+0.035 +0.000
Ø126.5 p6	+0.068 +0.043

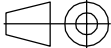


DETAIL - X

NOTE:

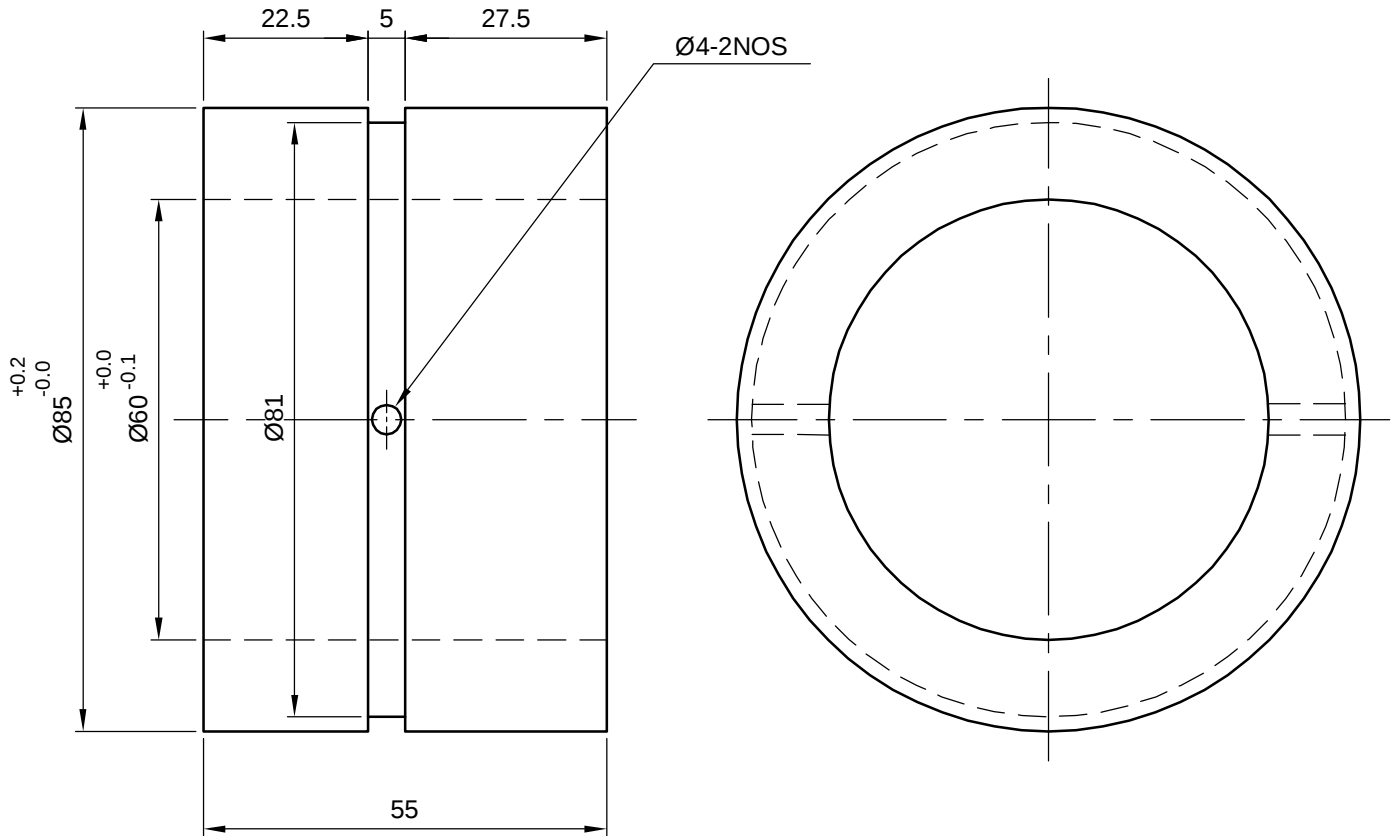
1. ALL UNSPECIFIED CHAMFERS TO 0.5 X 45°.
2. CASTING SHOULD BE FREE FROM HARMFUL INCLUSION & CRACKS.

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.

						GZ-CuSn12	03
ITEM NO	DESCRIPTION	DRAWING NO				MATL CODE	UNIT WT
						MATL SPEC	QTY
EQPT: CROSS PIERCING AND ELONGATION							
		Bharat Heavy Electricals Ltd		DRN	NAME S.S.N.KUMAR/ A.S	SIGNATURE S.S.N.Kumar/ A.S	DATE 14/11/14
		SEAMLESS STEEL TUBE PLANT		CHD	R.K.SINGH	R.K. Singh	14/11/14
		TIRUCHIRAPALLI – 620014		APPD	G.LOGANATHAN	G.Loganathan	14/11/14
DEPT SSTP	GRADE OF UNTOL. DIM		SCALE	WEIGHT (Kg)	REF TO ASSY DWG NO		ITEM
CODE 456	Ø/M/√ IS: 2102		1:2	4.7	REF TO OLD DWG NO 0101056-43.000-03		55
TITLE				CARD CODE U 01	DRAWING NO : 4-7-1123-43-10348		REV 01
CPE - COLLAR BUSH 3-ROLLER GUIDE							

ALL DIMENSIONS ARE IN MM

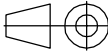
REV 01	DATE 26.02.19	ALTERED	<i>S.P.N.Kumar/M.D</i>
		CHECKED	<i>S.P.N.Kumar</i>
		APPROVED	<i>D.Abhighna</i>
BUSH DIMENSIONS REVISED AS PER USER'S REQUEST			

 Ra 3.2


NOTE:

1. ALL UNSPECIFIED CHAMFERS TAKEN AS 0.5 X 45°.

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.

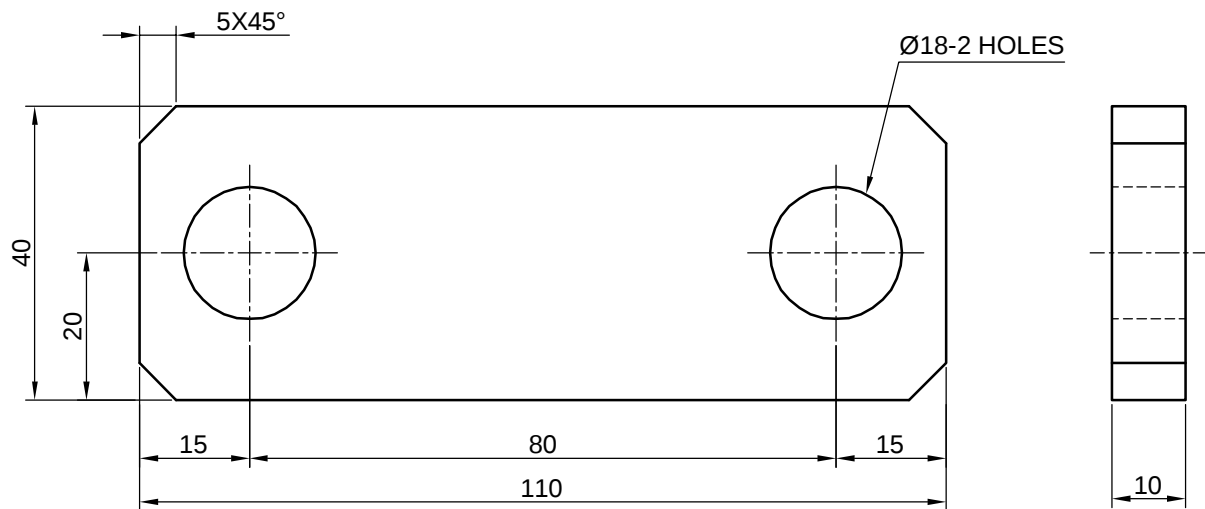
			PCuSn10 IS:28		04		
ITEM NO	DESCRIPTION	DRAWING NO	MATL CODE		UNIT WT		
			MATL SPEC		QTY		
EQPT: CROSS PIERCING AND ELONGATION							
		Bharat Heavy Electricals Ltd SEAMLESS STEEL TUBE PLANT TIRUCHIRAPALLI – 620014		NAME	SIGNATURE	DATE	
				DRN	S.S.N.KUMAR/ A.S	S.P.N.Kumar/ A.S	22/11/14
				CHD	R.K.SINGH	R.K. Singh	22/11/14
		APPD	G.LOGANATHAN	G.Loganathan	22/11/14		
DEPT SSTP	GRADE OF UNTOL. DIM  IS: 2102		SCALE	WEIGHT (Kg)	REF TO ASSY DWG NO	ITEM	
CODE 456			1:1	1.20	REF TO OLD DWG NO 0101056-43.000-03	59	
TITLE CPE - BUSH 3-ROLLER GUIDE			CARD CODE U 01	DRAWING NO : 4-7-1123-43-10356		REV 01	

A4-SIZE

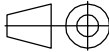
ALL DIMENSIONS ARE IN MM

REV 01	DATE	ALTERED
		CHECKED
		APPROVED

✓ Ra 3.2



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.

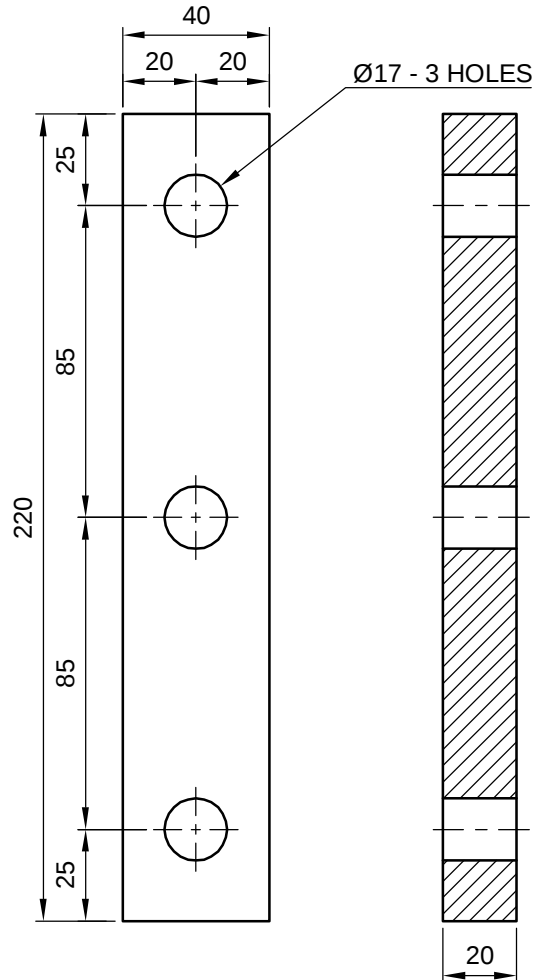
			E250A IS:2062				
ITEM NO	DESCRIPTION	DRAWING NO	MATL CODE		UNIT WT		
			MATL SPEC		QTY		
EQPT: CROSS PIERCING AND ELONGATION							
		Bharat Heavy Electricals Ltd SEAMLESS STEEL TUBE PLANT TIRUCHIRAPALLI – 620014		NAME	SIGNATURE	DATE	
				DRN	S.S.N.KUMAR/M.D	S.P.N.Kumar/M.D	26.02.19
				CHD	S.S.N.KUMAR	S.P.N.Kumar	26.02.19
		APPD	D.ABHIGHNA	D.Abhighna	26.02.19		
DEPT SSTP	GRADE OF UNTOL. DIM  IS: 2102		SCALE 1:1	WEIGHT (Kg) 0.301	REF TO ASSY DWG NO	ITEM 69	
CODE 456					REF TO OLD DWG NO 0101056-43.000-03		
TITLE CPE-LOCK PLATE 3-ROLLER GUIDE			CARD CODE U 01	DRAWING NO : 4-7-1123-43-10459		REV 00	

A4-SIZE

ALL DIMENSIONS ARE IN MM

REV 01	DATE 26.02.19	ALTERED	<i>S.S.N. Kumar / M.D</i>
		CHECKED	<i>S.S.N. Kumar</i>
		APPROVED	<i>D. Abhighna</i>
DIMENSIONS 40, 20 WERE 45, 22.5 REVISED AS PER USER'S REQUEST			

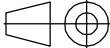
✓ Ra 3.2



NOTE:

ALL SHARP CORNERS CHAMFERED TO 0.5 X 45°.

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.

	SF 45 - 220 x 20 IS:1730			E250A IS:2062	03		
ITEM NO	DESCRIPTION	DRAWING NO		MATL CODE	UNIT WT		
				MATL SPEC	QTY		
EQPT: CROSS PIERCING AND ELONGATION							
		Bharat Heavy Electricals Ltd SEAMLESS STEEL TUBE PLANT TIRUCHIRAPALLI – 620014		NAME S.S.N.KUMAR/ A.S	SIGNATURE S.S.N.Kumar/ A.S	DATE 10/12/14	
				CHD	R.K.SINGH	R.K. Singh	10/12/14
				APPD	G.LOGANATHAN	G.Loganathan	10/12/14
DEPT SSTP	GRADE OF UNTOL. DIM		SCALE	WEIGHT (Kg)	REF TO ASSY DWG NO		ITEM
CODE 456	 IS: 2102		1:2	1.27	REF TO OLD DWG NO 0101056-43.000-03		74
TITLE CPE - WEDGE 3-ROLLER GUIDE				CARD CODE U 01	DRAWING NO : 4-7-1123-43-10365		REV 01

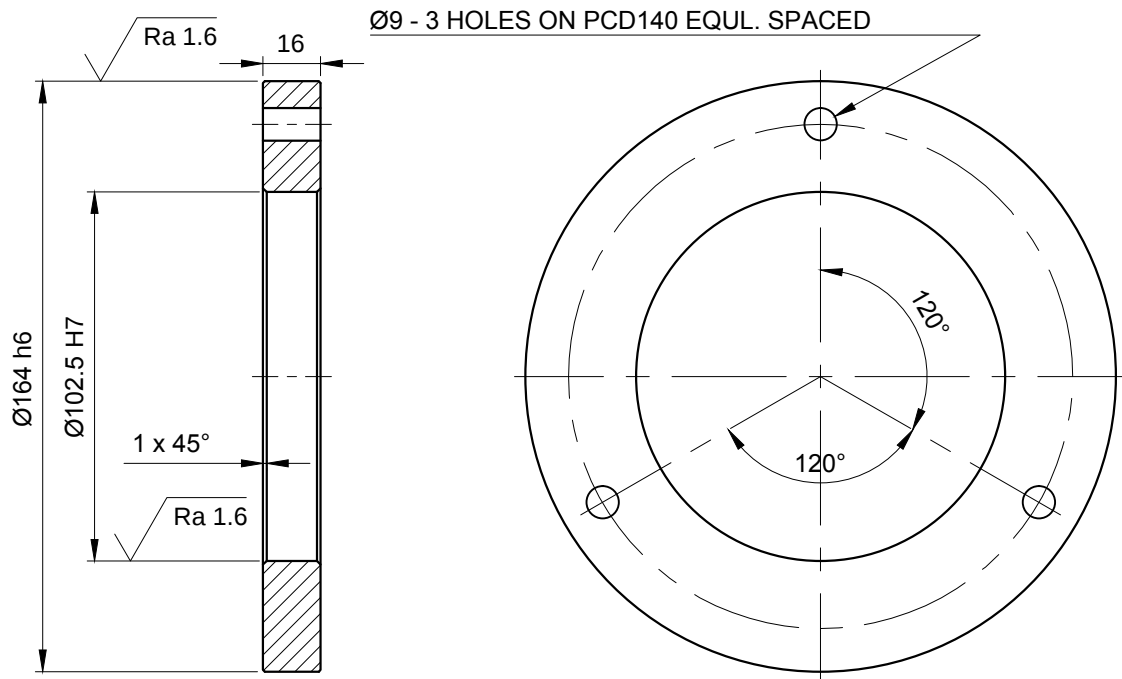
A4-SIZE

ALL DIMENSIONS ARE IN MM

REV	DATE	ALTERED
01		CHECKED
		APPROVED

$\sqrt{Ra\ 3.2}$ ($\sqrt{Ra\ 1.6}$)

SIZE	DEVIATION
Ø164 h6	0.000 -0.025
Ø102.5 H7	+0.035 0.000



NOTE:
ALL UNSPECIFIED CHAMFERS ARE TAKEN AS 0.5 X 45°.

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.

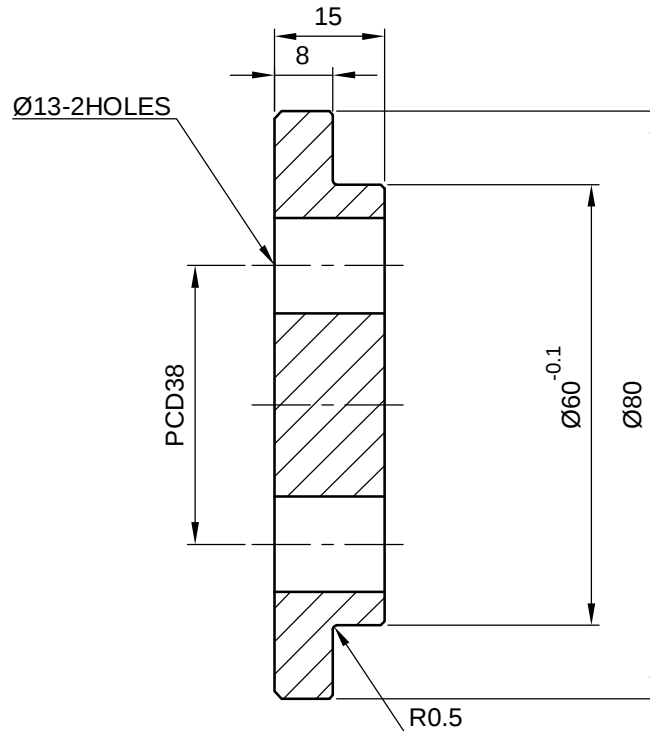
	PL 164 x 164 x 16 IS:1730				
ITEM NO	DESCRIPTION	DRAWING NO		16MnCr5+TH	01
				MATL CODE	UNIT WT
				MATL SPEC	QTY
EQPT: CROSS PIERCING AND ELONGATION					
		Bharat Heavy Electricals Ltd		NAME	SIGNATURE
SEAMLESS STEEL TUBE PLANT		TIRUCHIRAPALLI - 620014		S.S.N.KUMAR/ A.S	S.S.N.Kumar/ A.S
				R.K.SINGH	R.K.Singh
				G.LOGANATHAN	G. Loganathan
DEPT	GRADE OF UNTOL. DIM	SCALE	WEIGHT (Kg)	REF TO ASSY DWG NO	ITEM
SSTP	Ø/M/£	1:2	1.5	REF TO OLD DWG NO	75
CODE	IS: 2102			0101056-43.000-03	
456				DRAWING NO :	REV
TITLE			CARD CODE	4-7-1123-43-10352	00
CPE - WASHER			U 01		
3-ROLLER GUIDE					

A4-SIZE

ALL DIMENSIONS ARE IN MM

REV 01	DATE 19.03.16	ALTERED	S.N.Kumar/ys.m	REV 02	DATE 26.02.19	ALTERED	S.N.Kumar/M.D
		CHECKED	R.K. Singh			CHECKED	S. P. N. Kumar
		APPROVED	R.K. Singh			APPROVED	D. Abhighna
Ø13-2 HOLES WITH DISTANCE BETWEEN THEM AS 38 ADDED. Ø15 HOLES REMOVED FROM CENTER.				Ø60 ^{-0.1} WAS Ø74 REVISED AS PER USER'S REQUEST			

✓ Ra 3.2



NOTE:

ALL UNSPECIFIED CHAMFERS ARE TAKEN AS 0.5 X 45°.

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.

RO 80 x 16 IS:1732		30C8 IS:1875		04
ITEM NO	DESCRIPTION	DRAWING NO	MATL CODE	UNIT WT
			MATL SPEC	QTY
EQPT: CROSS PIERCING AND ELONGATION				
 Bharat Heavy Electricals Ltd SEAMLESS STEEL TUBE PLANT TIRUCHIRAPALLI – 620014		DRN	NAME S.S.N.KUMAR/ A.S	SIGNATURE <i>S.S.N.Kumar/ A.S</i>
		CHD	R.K.SINGH	<i>R.K. Singh</i>
		APPD	G.LOGANATHAN	<i>G. Loganathan</i>
DEPT SSTP	GRADE OF UNTOL. DIM	SCALE	WEIGHT (Kg)	REF TO ASSY DWG NO
CODE 456	 IS: 2102	1:1	0.5	REF TO OLD DWG NO 0101056-43.000-03
TITLE CPE - END PLATE 3-ROLLER GUIDE			CARD CODE U 01	DRAWING NO : 4-7-1123-43-10364
				ITEM 76
				REV 02

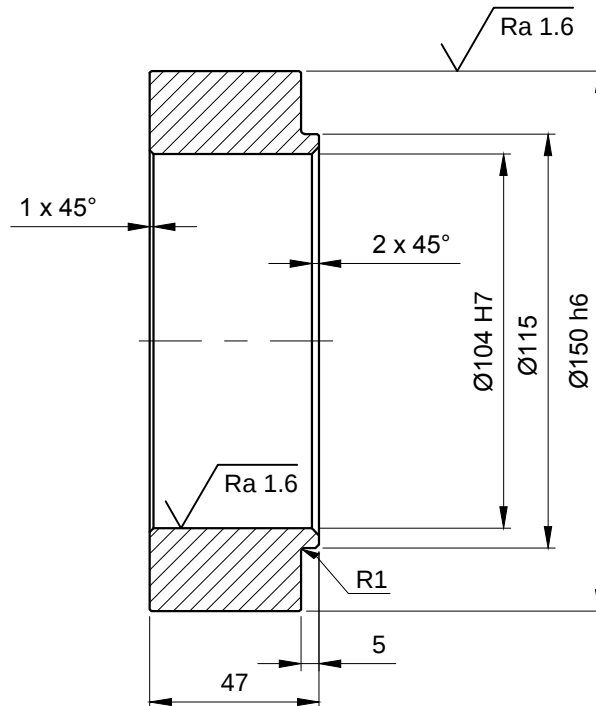
A4—SIZE

ALL DIMENSIONS ARE IN MM

REV	DATE	ALTERED
01		CHECKED
		APPROVED

$\sqrt{Ra\ 3.2}$ ($\sqrt{Ra\ 1.6}$)

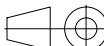
SIZE	DEVIATION
Ø104 H7	+0.035 0.000
Ø150 h6	0.000 -0.025



NOTE:

ALL UNSPECIFIED CHAMFERS ARE TAKEN AS 0.5 X 45°.

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.

	RO Ø150 x 47 IS:1732						
				30C8 IS:1875		03	
ITEM NO	DESCRIPTION	DRAWING NO		MATL CODE	UNIT WT		
				MATL SPEC	QTY		
EQPT: CROSS PIERCING AND ELONGATION							
		Bharat Heavy Electricals Ltd SEAMLESS STEEL TUBE PLANT TIRUCHIRAPALLI – 620014		DRN	NAME S.S.N.KUMAR/ A.S	SIGNATURE <i>S.S.N.Kumar/ A.S</i>	DATE 07/11/14
				CHD	R.K.SINGH	<i>R.K.Singh</i>	07/11/14
				APPD	G.LOGANATHAN	<i>G.Loganathan</i>	07/11/14
DEPT SSTP	GRADE OF UNTOL. DIM		SCALE	WEIGHT (Kg)	REF TO ASSY DWG NO		ITEM
CODE 456	$\phi/M/\#$ IS: 2102		1:2	2.58	REF TO OLD DWG NO 0101056–43.000–03		83
TITLE CPE - RING 3-ROLLER GUIDE				CARD CODE U 01	DRAWING NO : 4-7-1123-43-10359		REV 00

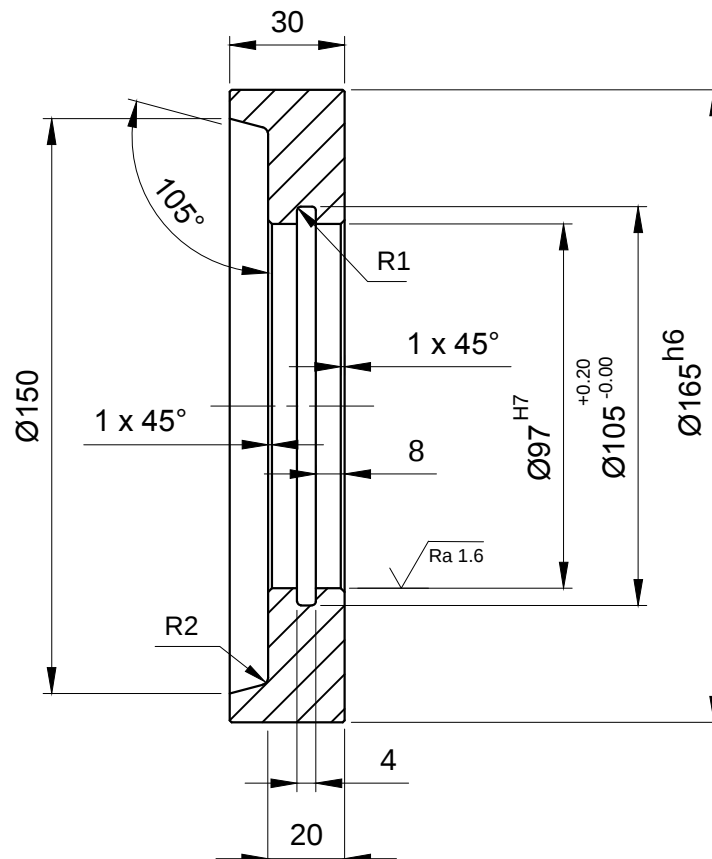
A4-SIZE

ALL DIMENSIONS ARE IN MM

REV 01	DATE	ALTERED
		CHECKED
		APPROVED

$$\sqrt{\text{Ra } 3.2} \left(\sqrt{\text{Ra } 1.6} \right)$$

Ø97 ^{H7}	+0.035
	0.000
Ø165 ^{h6}	0.000
	-0.025



NOTE:
UNSPECIFIED CHAMFERS ARE TAKEN AS 1 x45°

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		RO 180 x 40 IS:1732											
ITEM NO		DESCRIPTION		DRAWING NO		30C8 IS:1875		03					
						MATL CODE		UNIT WT					
						MATL SPEC		QTY					
EQPT: CROSS PIERCING AND ELONGATION													
 Bharat Heavy Electricals Ltd SEAMLESS STEEL TUBE PLANT TIRUCHIRAPALLI — 620014						NAME		SIGNATURE		DATE			
				DRN		SPN.KUMAR/B.N		SPN.Kumar/B.M		01.03.18			
				CHD		D.CHANDRASEKAR		D.chandrasekar		01.03.18			
				APPD		D.CHANDRASEKAR		D.chandrasekar		01.03.18			
DEPT SSTP		GRADE OF UNTOL. DIM				SCALE		WEIGHT (Kg)		REF TO ASSY DWG NO		ITEM	
CODE 456		Ø / M / F IS: 2102				1:2		3.01		REF TO OLD DWG NO 0101056-43.0000-03		87	
TITLE						CARD CODE		DRAWING NO :				REV	
CPE - RING 3 -ROLLER GUIDE						U 01		4-7-1123-43-10440				00	

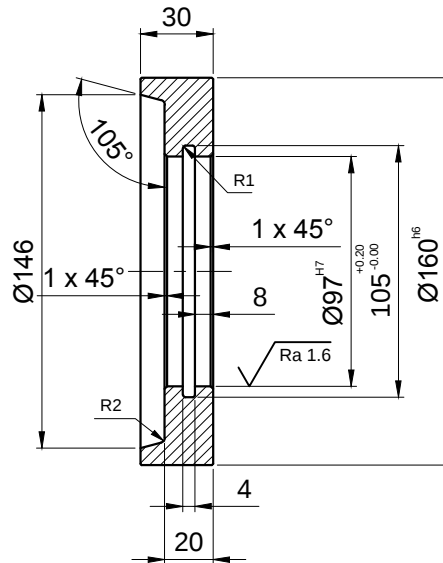
ALL DIMENSIONS ARE IN MM

REV	DATE	ALTERED	<i>S.N.Kumar/kg</i>
01	20/09/16	CHECKED	<i>M.Chandrakumar</i>
		APPROVED	<i>M.Chandrakumar</i>

DIMENSION CORRECTED AS PER THE ORIGINAL COMPONENT

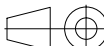
√ Ra 3.2 (√ Ra 1.6)

Ø97 ^{H7}	+0.035
	0.000
Ø160 ^{h6}	0.000
	-0.025



NOTE:
UNSPECIFIED CHAMFERS ARE TAKEN AS 1 x 45°

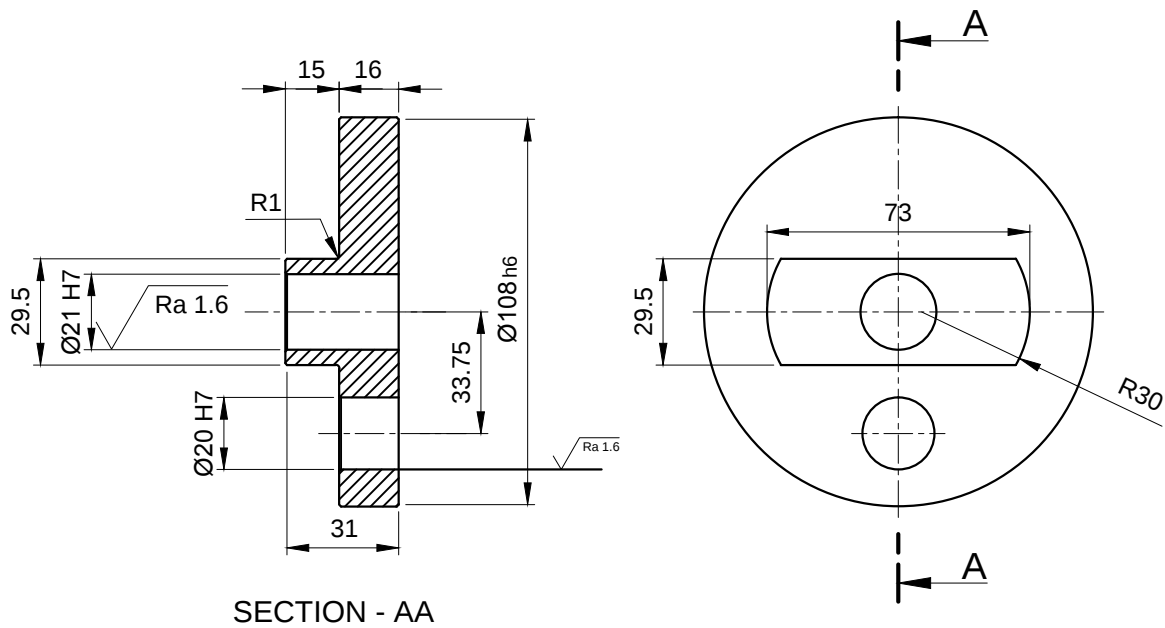
CAUTION: THE INFORMATION ON THIS DOCUMENT IS THE PROPERTY OF BHARAT HEAVY ELECTRICALS LIMITED. IT MUST NOT BE USED DIRECTLY OR INDIRECTLY IN ANY WAY DETRIMENTAL TO THE INTEREST OF THE COMPANY.

	RO 180 x 40 IS:1732		30C8 IS:1875	03		
ITEM NO	DESCRIPTION	DRAWING NO	MATL CODE	UNIT WT		
			MATL SPEC	QTY		
EQPT: CROSS PIERCING AND ELONGATION						
 Bharat Heavy Electricals Ltd SEAMLESS STEEL TUBE PLANT TIRUCHIRAPALLI – 620014		DRN	NAME SSN.KUMAR/A.S	SIGNATURE SSN.KUMAR/A.S	DATE 10/11/14	
		CHD	R.K.SINGH	R.K.SINGH	10/11/14	
		APPD	G.LOGANATHAN	G.LOGANATHAN	10/11/14	
DEPT SSTP	GRADE OF UNTOL. DIM Ø/✓M/£ IS: 2102		SCALE 1:2	WEIGHT (Kg) 3.01	REF TO ASSY DWG NO	ITEM
CODE 456				REF TO OLD DWG NO 0101056-43.0000-03	88	
TITLE CPE - RING 3 -ROLLER GUIDE				CARD CODE U 01	DRAWING NO : 4-7-1123-43-10358	REV 01

A4-SIZE

ALL DIMENSIONS ARE IN MM

REV 01	DATE 15.12.14	ALTERED	<i>S.S.N.Kumar / A.S</i>	REV 02	DATE 01.03.18	ALERTED	<i>S.S.N.Kumar / B.N</i>	
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NOTE:

ALL UNSPECIFIED CHAMFERS ARE TAKEN AS 0.5 X 45°.

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.	ITEM NO	RO 108 x 40 IS:1732	DESCRIPTION	DRAWING NO	30C8 IS:1875	UNIT WT	03
	DEPT	SSTP	GRADE OF UNTOL. DIM	SCALE	WEIGHT (Kg)	REF TO ASSY DWG NO	ITEM
	CODE	456	Ø/M/£ IS: 2102	1:2	1.7	REF TO OLD DWG NO 0101056-43.000-03	89
	TITLE				CARD CODE	DRAWING NO :	REV
	CPE - COVER 3-ROLLER GUIDE				U 01	4-7-1123-43-10363	02

A4-SIZE

ALL DIMENSIONS ARE IN MM

REV 01	DATE 04.12.14	ALTERED <i>S.S.N.Kumar / A.S</i>
		CHECKED <i>R.K.Singh</i>
		APPROVED <i>G.Loganathan</i>

REV 02	DATE 30.4.15	ALTERED <i>S.S.N.Kumar / K.Nr</i>
		CHECKED <i>R.K.Singh</i>
		APPROVED <i>G.Loganathan</i>

$\sqrt{Ra\ 3.2}$ ($\sqrt{Ra\ 1.6}$)

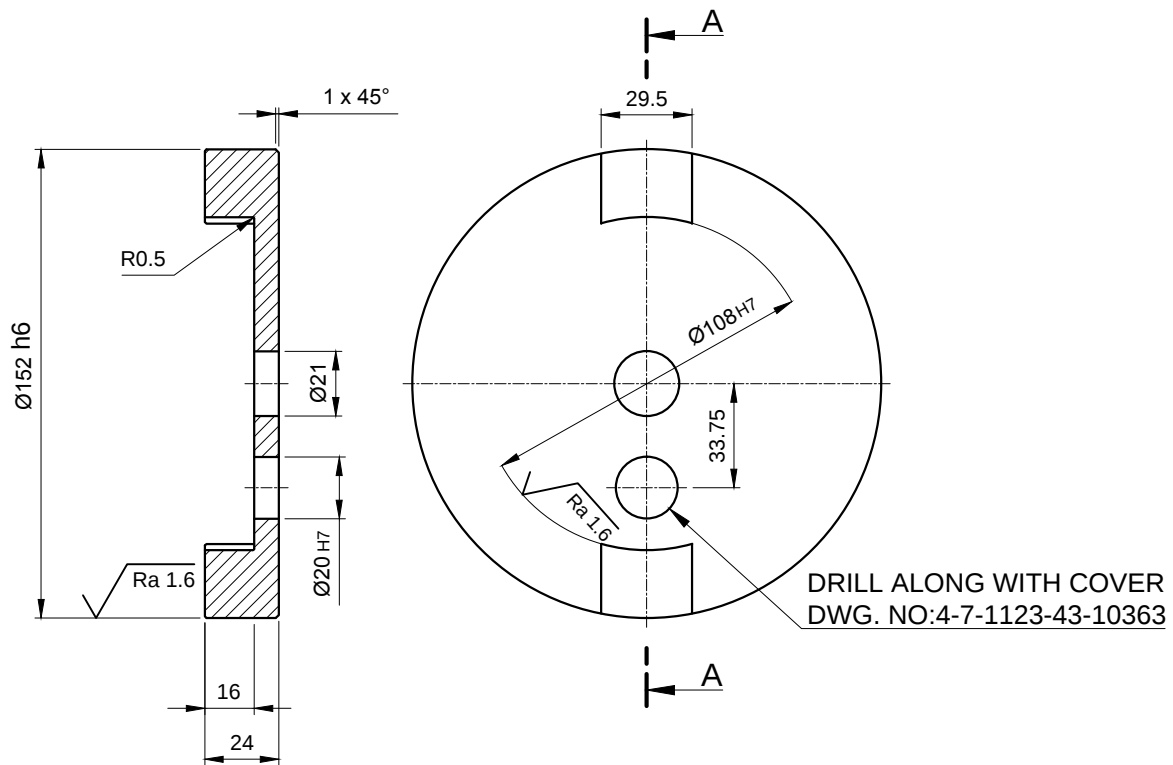
SIDE VIEW ADDED

SECTIONAL VIEW CORRECTED

REV 03	DATE 02.04.18	ALTERED <i>S.S.N.Kumar / B.N</i>
		CHECKED <i>D.Chandrasekar</i>
		APPROVED <i>D.Chandrasekar</i>

DIMENSIONS 24 & 16 WERE 25 & 40
REVISED AS PER USER'S REQUEST

SIZE	DEVIATION
Ø20 H7	+0.021 0.000
Ø108 H7	+0.035 0.000
Ø152 h6	0.000 -0.025



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.

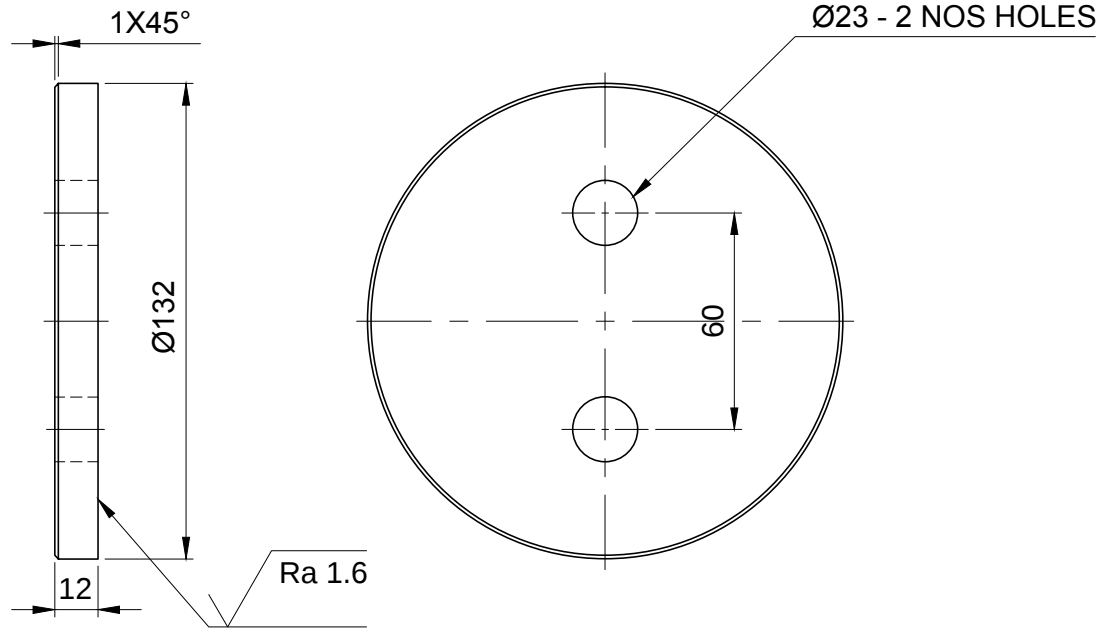
	RO 160 x 40 IS:1732		30C8 IS:1875		03	
ITEM NO	DESCRIPTION	DRAWING NO	MATL CODE		UNIT WT	
			MATL SPEC		QTY	
EQPT: CROSS PIERCING AND ELONGATION						
 Bharat Heavy Electricals Ltd SEAMLESS STEEL TUBE PLANT TIRUCHIRAPALLI – 620014		DRN	NAME SSN.KUMAR / A.S	SIGNATURE <i>S.S.N.Kumar / A.S</i>	DATE 22.11.14	
		CHD	R.K.SINGH	<i>R.K.Singh</i>	22.11.14	
		APPD	G.LOGANATHAN	<i>G.Loganathan</i>	22.11.14	
DEPT SSTP	GRADE OF UNTOL. DIM		SCALE	WEIGHT (Kg)	REF TO ASSY DWG NO	ITEM
CODE 456	$\phi / M / \#$ IS: 2102		1:1.5	3.3	REF TO OLD DWG NO 0101056-43.000-03	90
TITLE CPE - COVER 3-ROLLER GUIDE			CARD CODE U 01	DRAWING NO : 4-7-1123-43-10369		REV 03

A4-SIZE

ALL DIMENSIONS ARE IN MM

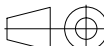
REV 01	DATE 20.09.16	ALTERED	<i>S.S.N.Kumar/k.y</i>
		CHECKED	<i>M. Chandrakumar</i>
		APPROVED	<i>M. Chandrakumar</i>
DIMENSION 60 WAS 52			

√ Ra 3.2 (√ Ra 1.6)



NOTE:
ALL UNSPECIFIED CHAMFERS ARE TAKEN AS 0.5 X 45°.

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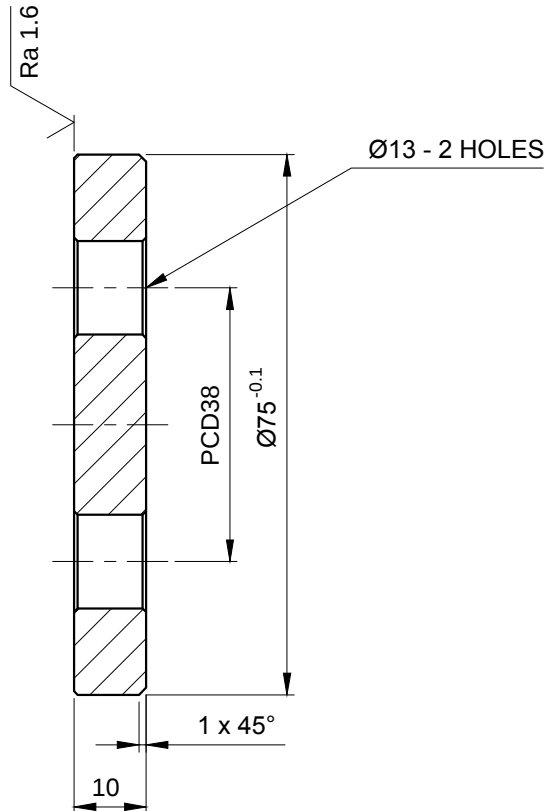
	PL 132 x 132 x 12 IS:1730		E250A IS:2062		03	
ITEM NO	DESCRIPTION	DRAWING NO	MATL CODE		UNIT WT	
			MATL SPEC		QTY	
EQPT: CROSS PIERCING AND ELONGATION						
 Bharat Heavy Electricals Ltd SEAMLESS STEEL TUBE PLANT TIRUCHIRAPALLI – 620014		DRN	NAME S.S.N.KUMAR/ A.S	SIGNATURE <i>S.S.N.Kumar/ A.S</i>	DATE 07/11/14	
		CHD	R.K.SINGH	<i>R.K. Singh</i>	07/11/14	
		APPD	G.LOGANATHAN	<i>G. Loganathan</i>	07/11/14	
DEPT SSTP	GRADE OF UNTOL. DIM  IS: 2102		SCALE 1:2	WEIGHT (Kg) 1.6	REF TO ASSY DWG NO	ITEM
CODE 456					REF TO OLD DWG NO 0101056-43.000-03	
TITLE CPE - END PLATE 3-ROLLER GUIDE			CARD CODE U 01	DRAWING NO : 4-7-1123-43-10357		REV 01

A4-SIZE

ALL DIMENSIONS ARE IN MM

REV 01	DATE	ALTERED
		CHECKED
		APPROVED

$\sqrt{Ra\ 3.2}$ ($\sqrt{Ra\ 1.6}$)



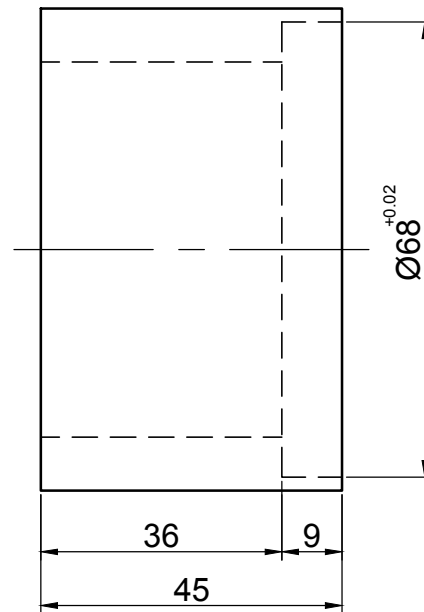
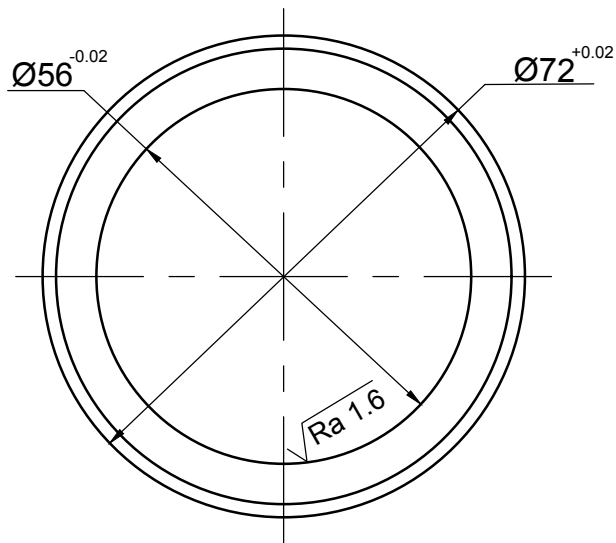
NOTE:
ALL UNSPECIFIED CHAMFERS ARE TAKEN AS 0.5 X 45°.

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.

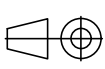
	RO 75 x 10 IS:1732		30C8 IS:1875		06		
ITEM NO	DESCRIPTION	DRAWING NO	MATL CODE		UNIT WT		
			MATL SPEC		QTY		
EQPT: CROSS PIERCING AND ELONGATION							
		Bharat Heavy Electricals Ltd SEAMLESS STEEL TUBE PLANT TIRUCHIRAPALLI – 620014		DRN	NAME S.S.N.KUMAR/ A.S	SIGNATURE <i>S.S.N.Kumar/ A.S</i>	DATE 14/11/14
				CHD	R.K.SINGH	<i>R.K. Singh</i>	14/11/14
				APPD	G.LOGANATHAN	<i>G.Loganathan</i>	14/11/14
DEPT SSTP	GRADE OF UNTOL. DIM $\phi/M/\#$ IS:2102		SCALE 1:1	WEIGHT (Kg) 0.33	REF TO ASSY DWG NO		ITEM
CODE 456					REF TO OLD DWG NO 0101056–43.000–04		110
TITLE CPE - END PLATE 3-ROLLER GUIDE				CARD CODE U 01	DRAWING NO : 4-7-1123-43-10371		REV 00

ALL DIMENSIONS ARE IN MM

REV 01	DATE	ALTERED
		CHECKED
		APPROVED

 $\sqrt{\text{Ra } 3.2}$ ($\sqrt{\text{Ra } 1.6}$)


NOTE:
SHORE HARDNESS D VALVE 85

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.	ITEM NO	DESCRIPTION	DRAWING NO	CASTNYLON		UNIT WT	
				MATL CODE			
				MATL SPEC		QTY	
	EQPT: REELER						
	Bharat Heavy Electricals Ltd SEAMLESS STEEL TUBE PLANT TIRUCHIRAPALLI – 620014			DRN	NAME S.S.N.KUMAR/M.D	SIGNATURE <i>S.S.N.Kumar/M.D</i>	DATE 29.12.18
				CHD	S.S.N.KUMAR	<i>S.S.N.Kumar</i>	29.12.18
				APPD	D.ABHIGNA	<i>D. Abhigna</i>	29.12.18
DEPT SSTP	GRADE OF UNTOL. DIM		SCALE	WEIGHT (Kg)	REF TO ASSY DWG NO		ITEM
CODE 456	$\phi / M / F$ IS: 2102		1:1	0.5	REF TO OLD DWG NO		
TITLE REE-POLYAMIDE BUSH UNIVERSAL JOINT SHAFT ASSY.				CARD CODE U 01	DRAWING NO : 4-7-1136-30-10453		REV 00

A4—SIZE