

DRAWING No. 3-80-300-19825

NOTES: — 01. APPLICABLE FOR P91/P92
 02. FOR OD MISMATCH, REFER FIGURE-Xa
 03. REFER STYLE-D_L FOR THICKNESS <14.2mm (FOR ALL OD/ID)
 04. REFER STYLE-PL
 i) WHEN THICKNESS IS ≥ 14.2 mm & <20mm (FOR ALL OD/ID)
 ii) WHEN THICKNESS ≥ 20 mm & OD <219.1mm.
 05. $\alpha = 6^\circ$ FOR WALL THICKNESS ≥ 20 mm AND ≤ 30 mm
 06. $\alpha = 10^\circ$ FOR WALL THICKNESS > 30 mm

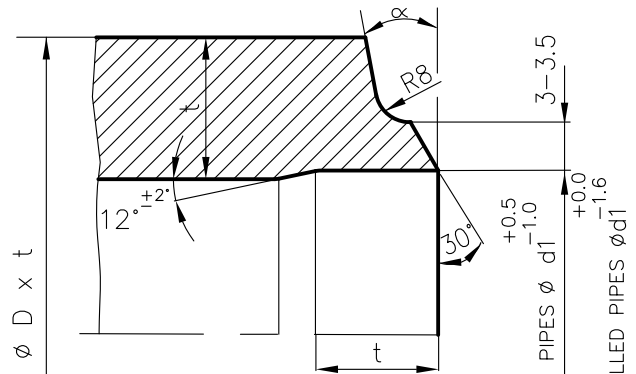


FIGURE - X

MATCHING EDGE PREPARATION FOR MISMATCH OD APPLICABLE FOR BENDS/FITTINGS OF P91/P92 MATERIALS
 NOTES: — 01. OD OF STRAIGHT TO BE PHYSICALLY MEASURED/VERIFIED.
 02. t = THK OF CONNECTING PIPE (STRAIGHT)

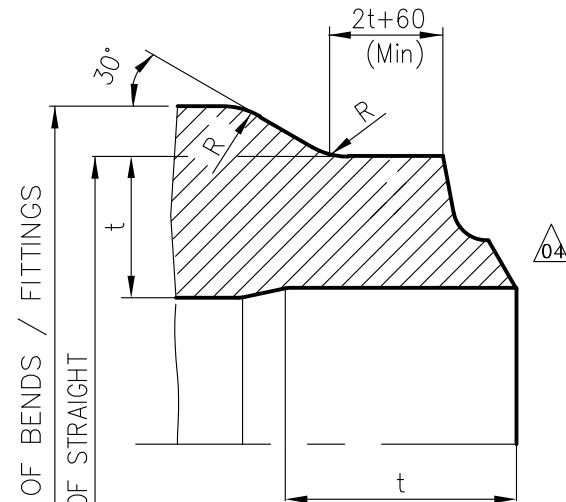
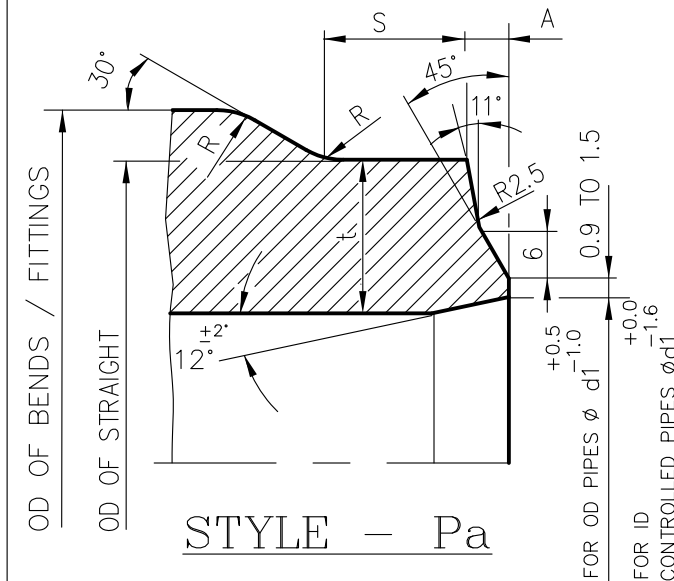


FIGURE - Xa

MATCHING EDGE PREPARATION FOR MISMATCH OD DIAMETRICALLY GREATER THAN 8 mm (ie OD1 - OD2 > 8mm) APPLICABLE FOR BENDS/FITTINGS OTHER THAN P91/P92 MATERIALS
 NOTES: — 01. OD OF STRAIGHT TO BE PHYSICALLY MEASURED/VERIFIED.
 02. WHEN $t < 65$, $S+A = 65$ Min. & $t > 65$, $S=65$ Min. WHERE t=THK OF CONN.PIPES(STRAIGHT).



STYLE - Pa

MATCHING EDGE PREPARATION FOR MISMATCH OD DIAMETRICALLY GREATER THAN 8 mm (ie OD1 - OD2 > 8mm) APPLICABLE FOR ELBOWS OTHER THAN P91/P92 MATERIALS
 NOTES: — 01. OD = OUTSIDE DIA OF CONN. PIPE (STRAIGHT) TO BE PHYSICALLY MEASURED/VERIFIED.
 02. t = THK OF CONN.PIPES (STRAIGHT)
 03. t = THK OF CONN.PIPES (STRAIGHT)

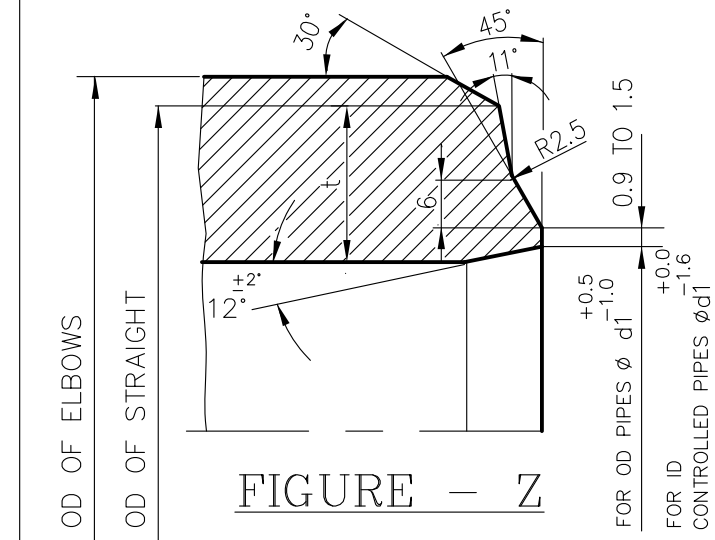


FIGURE - Z

NOTES: — 01. APPLICABLE FOR P91/P92 ZERO ARM PIPEBEND WELDED WITH P91/P92 STRAIGHT PIPE
 02. FOR OD MISMATCH, REFER FIGURE-Xa
 03. REFER STYLE-D_L FOR THICKNESS <14.2mm (FOR ALL OD/ID)
 04. REFER STYLE-PL
 i) WHEN THICKNESS IS ≥ 14.2 mm AND <20 mm FOR ALL OD/ID.
 ii) WHEN THICKNESS ≥ 20 mm AND OD < 219.1 mm.
 05. $\alpha = 6^\circ$ FOR WALL THICKNESS ≥ 20 mm AND ≤ 30 mm
 06. $\alpha = 10^\circ$ FOR WALL THICKNESS > 30 mm

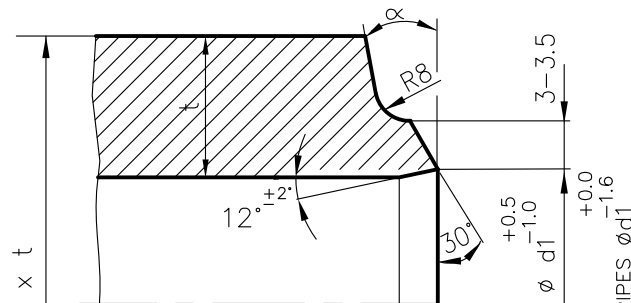


FIGURE - Xb

(BEND END)

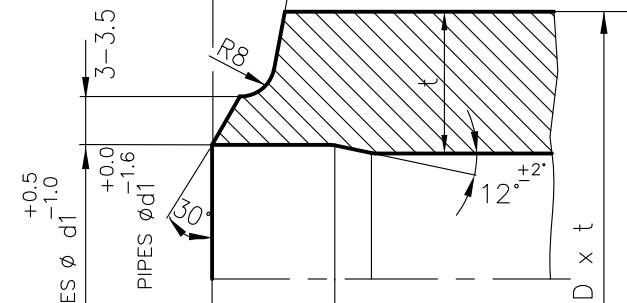
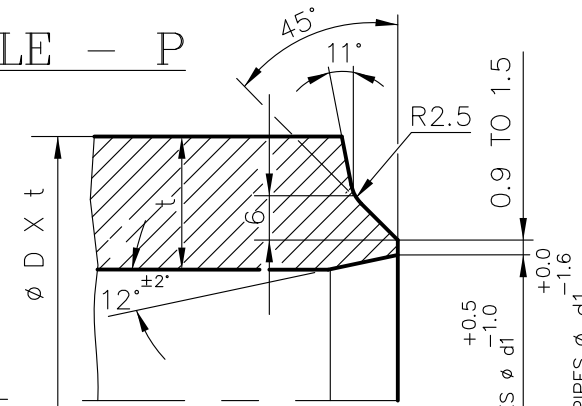


FIGURE - Xc

(STRAIGHT END)

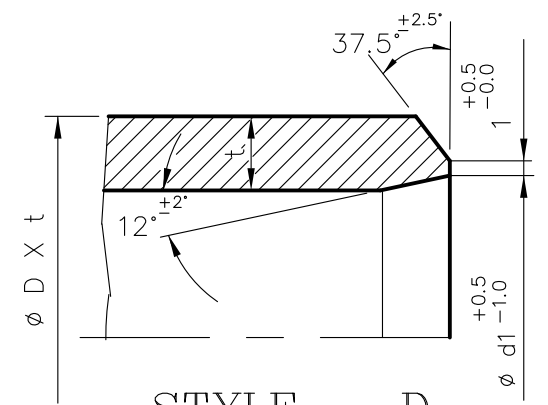
STYLE - P



NOTES: —

01. USE WHEN $t \geq 14.2$ mm AND < 70mm.
 02. FOR $t \geq 70.0$ mm REF. STYLE-Pm
 03. FOR OD MISMATCHING REF. STYLE-Pa

NOTES: —

01. USE WHEN $t < 14.2$ mm.

STYLE - D

TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT

STANDARD

GENERAL NOTES :

01. THE MINIMUM THICKNESS AT WELD END SHALL NOT BE LESS THAN
 a) 0.875 TIMES t NOM. FOR OD PIPES.
 b) t MIN. FOR ID CONTROLLED PIPES.

02. t NOM & t MIN SHALL BE AS PER SPECIFIED PIPE SIZE.

03. SHARP CORNERS SHALL BE ROUNDED OFF WHEREEVER 'R' IS INDICATED.

NOTES FOR WELDING:

01. WELD REINFORCEMENT TO BE FLUSH GROUND AND MERGED WITH PARENT METAL WITHOUT ANY UNEVENNESS.

REV 04	DATE 07.12.16	ALTERED: P SURESH APPROVED: R SESHAGIRI
ZONE	SHEET 2 OF 2 IS ADDED. NOTES ADDED, MODIFIED AND DELETED IN FIGURE-X, Xa, Xb, Xc AND STYLE-P	
REV 03	DATE 10.04.13	ALTERED: M.R.K APPROVED: C.K.N
ZONE	FIG Xb AND FIG Xc ADDED. IN FIG.X, NOTE 01 MODIFIED. IN FIG.Xa, STY-Pa, FIG.Z, P92 MATERIAL ADDED	
REV 02	DATE 10.01.13	ALTERED: M.R.K APPROVED: C.K.N
ZONE	IN FIG.Xa, NOTE 04 ADDED. GENERAL NOTES 03 ADDED. IN FIG.Xa, 8MM OD MISMATCH IS REMOVED	
REV 01	DATE 11.05.04	ALTERED: R.SENDHIL APPROVED: A.VELAYUTHAM
ZONE	PROJECT NAME REMOVED AND STANDARD INCORPORATED IN TITLE BLOCK	

BHARAT HEAVY ELECTRICALS LTD.,
PIPING CENTRE, MADRAS

DEPT.

GRADE OF UN TOL. DIM

CODE

C/M/F

TITLE

EDGE PREPARATION
DETAILS

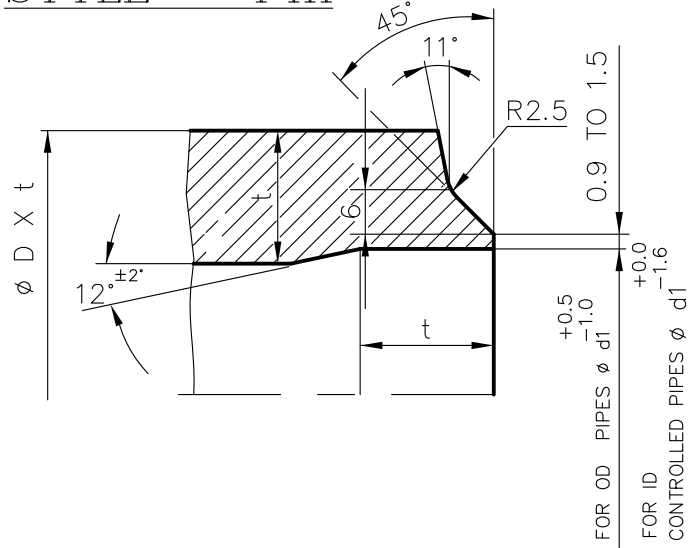
DRN	NAME	SIGN	DATE	NO OF ITEMS
CHD	K.B.RAGUNATH		11.10.01	
APPD	M.C.SEKARAN		11.10.01	
	A.VELAYUTHAM		11.10.01	
DEPT.	GRADE OF UN TOL. DIM	SCALE	WEIGHT (Kg).	NAME OF ORIGINAL ORGANISATION
CARD CODE	DRAWING No.	REV		
U 01	3-80-300-19825	04		
	SHEET 1 OF 2			

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3-80-300-19825

DRAWING No.

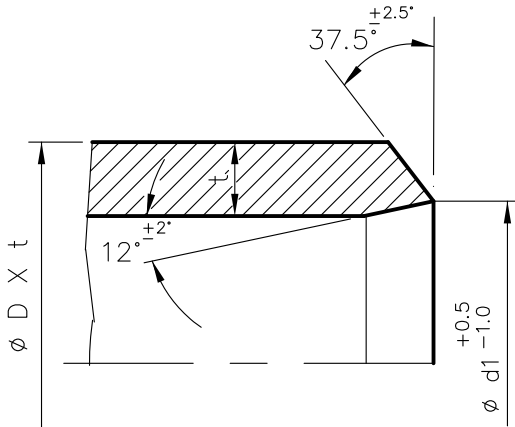
STYLE - P_m



NOTES: -

01. USE FOR SA106GRC PIPES WHEN $t \geq 70.0$ mm.
02. FOR OD MISMATCHING REF. FIGURE-P_a
03. FOR FITTINGS USE STYLE-P.

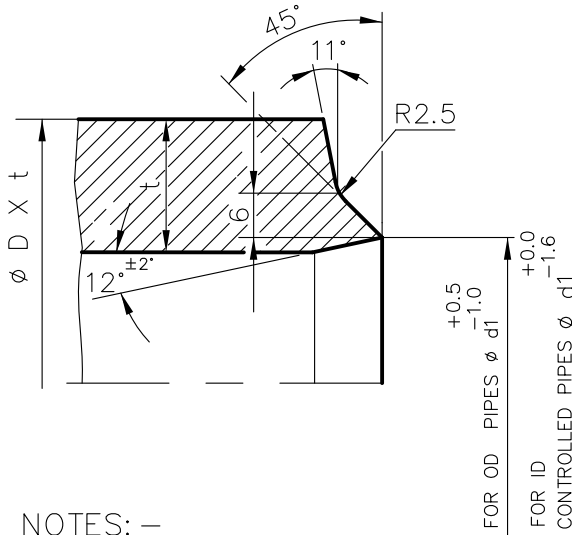
STYLE - D_L



NOTES: -

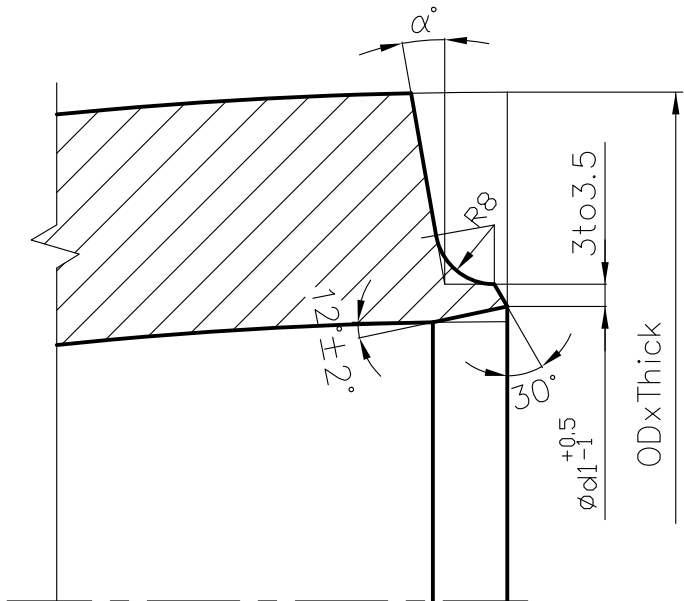
01. USE FOR P91 / P92 PIPES AND FITTINGS WHEN $t < 14.2$ mm (ALL OD/ID).

STYLE - P_L



NOTES: -

01. USE FOR P91 / P92 PIPES AND FITTINGS
i) WHEN THICKNESS IS ≥ 14.2 mm AND < 20 mm FOR ALL OD/ID.
ii) WHEN THICKNESS ≥ 20 mm AND OD < 219.1 mm.
02. FOR OD MISMATCHING REF. FIGURE-P_a



01. USE FOR P91 / P92 FITTINGS
02. REFER STYLE-D_L FOR THICKNESS < 14.2 mm FOR ALL OD/ID.
03. REFER STYLE-P_L
i) WHEN THICKNESS IS ≥ 14.2 mm AND < 20 mm FOR ALL OD/ID.
ii) WHEN THICKNESS ≥ 20 mm AND OD < 219.1 mm.
04. $\alpha = 6^\circ$ FOR WALL THICKNESS ≥ 20 mm AND ≤ 30 mm
05. $\alpha = 10^\circ$ FOR WALL THICKNESS > 30 mm.
06. FIGURE-X_f IS APPLICABLE FOR ALL BUTT WELDED FITTINGS NOT COVERED IN NOTES 02 & 03

FIGURE-X_f

NOTE :

01. FOR GENERAL NOTES AND NOTES FOR WELDING REFER SHEET 1 OF 2.

TYPE OF PRODUCT
OR NAME OF
CUSTOMER/PROJECT

STANDARD

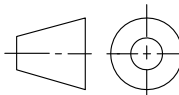


BHARAT HEAVY ELECTRICALS LTD.,
PIPING CENTRE, MADRAS

DRN	NAME	SIGN	DATE	NO OF ITEMS
CHD	P SURESH		07.12.16	
APPD	R SESHAGIRI		07.12.16	
	C KARUNAKARAN		07.12.16	

DEPT.

GRADE OF
UN TOL. DIM



SCALE

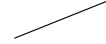
WEIGHT (Kg).

NAME OF ORIGINAL
ORGANISATION

ITEM
No.

CODE

C/M/F



REV

TITLE

EDGE PREPARATION
DETAILS

CARD
CODE

U 01

DRAWING No.

3-80-300-19825

SHEET 2 OF 2

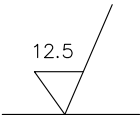
REV

04

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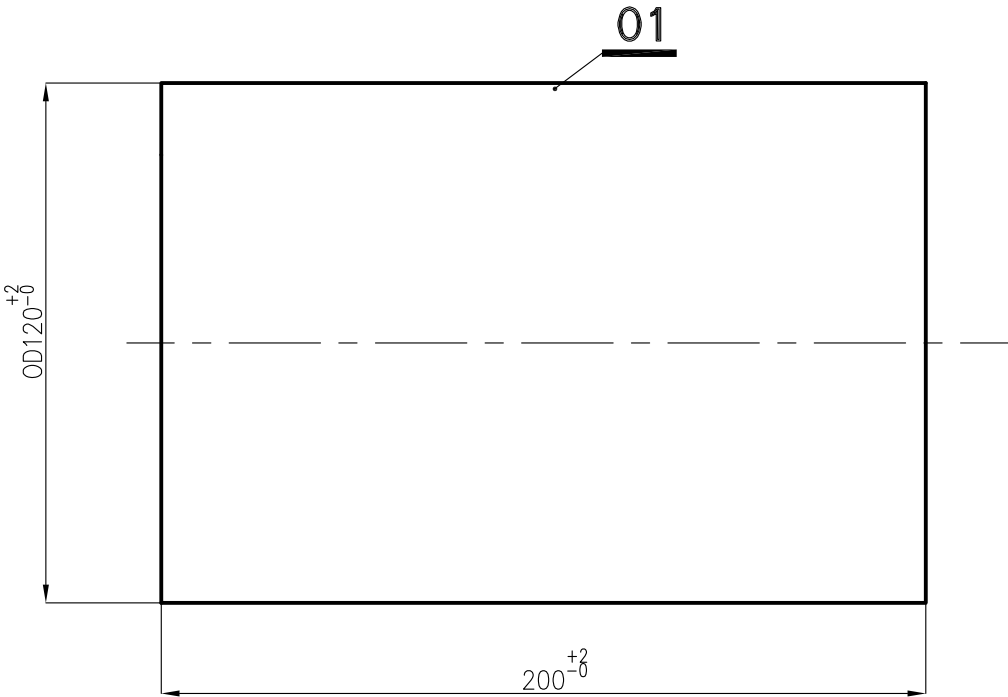
REV	DATE	ALTERED:
01		APPROVED:

ALL DIMENSIONS ARE IN MILLIMETRES



NOTES :-

1. DESIGN PRESSURE : 300 Kg/Cm² (g)
2. DESIGN TEMPERATURE : 610° C

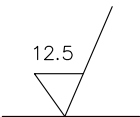


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			MATL. SPECN.			QTY.	

		BHARAT HEAVY ELECTRICALS LIMITED			DRN	NAME	SIGN	DATE	NO.OF VAR	
		PIPING CENTRE			CHD	KONDAPANAIDU		30.01.18		
		CHENNAI 600 017			APPD	R.SESHAGIRI		30.01.18		
DEPT	GRADE OF UNTOL.DIM		SCALE	WEIGHT (KG).	REF.NO:			ITEM NO.	NO. OF ITEMS	
CODE	C / M / F		N.T.S		NB 80 STUB FOR NORTH CHENNAI AND TELANGANA					
TITLE				CARD CODE	DRAWING NO.				REV	
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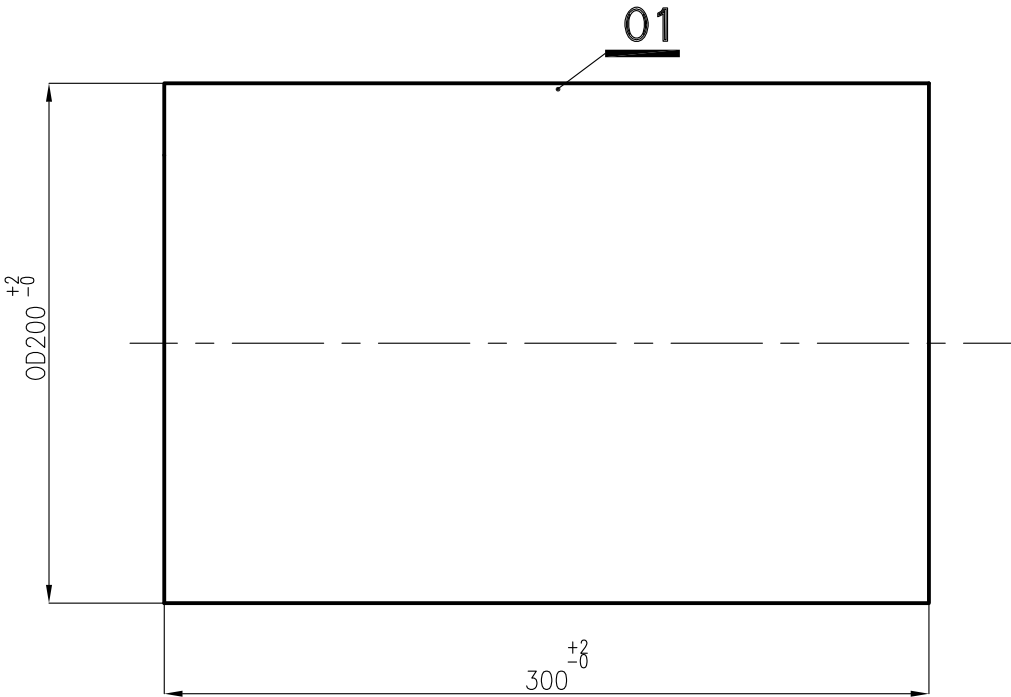
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01		APPROVED:

ALL DIMENSIONS ARE IN MILLIMETRES

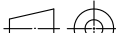


NOTES :-

1. DESIGN PRESSURE : 300 Kg/Cm² (g)
2. DESIGN TEMPERATURE : 610° C



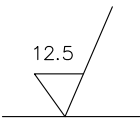
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			MATL. SPECN.			QTY.	

 BHARAT HEAVY ELECTRICALS LIMITED PIPING CENTRE CHENNAI 600 017			DRN	NAME RP SINGH	SIGN	DATE 30.01.18	NO.OF VAR	
			CHD	KONDAPANAIDU		30.01.18		
			APPD	R.SESHAGIRI		30.01.18		
DEPT	GRADE OF UNTOL.DIM		SCALE	WEIGHT (KG).	REF.NO: START UP VENT STUB& ERV STUB NORTH CHENNAI AND TELANGANA		ITEM NO.	NO. OF ITEMS
CODE	C / M / F		N.T.S					
TITLE FORGING OD200 L=300 (SA182F92)				CARD CODE U 01	DRAWING NO. 4-80-300-81902			REV 00

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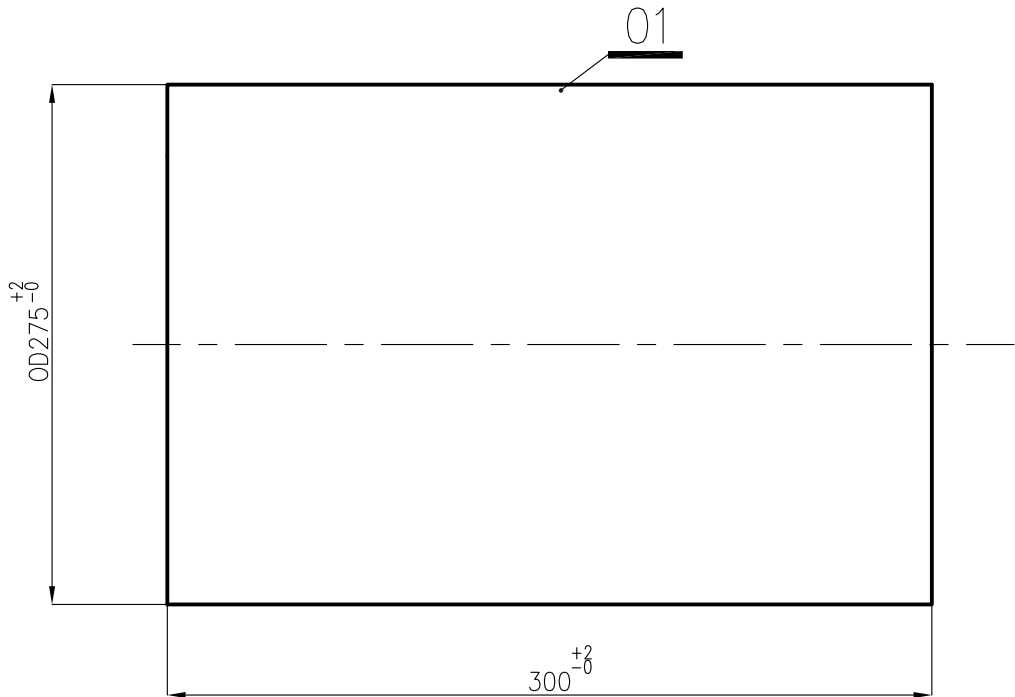
REV	DATE	ALTERED: RP SINGH
01	06.02.18	APPROVED:KONDAPA NAIDU
MATERIAL CODE REVISED 		

ALL DIMENSIONS ARE IN MILLIMETRES



NOTES : -

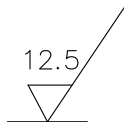
1. DESIGN PRESSURE : 300 Kg/Cm² (g)
2. DESIGN TEMPERATURE : 610° C



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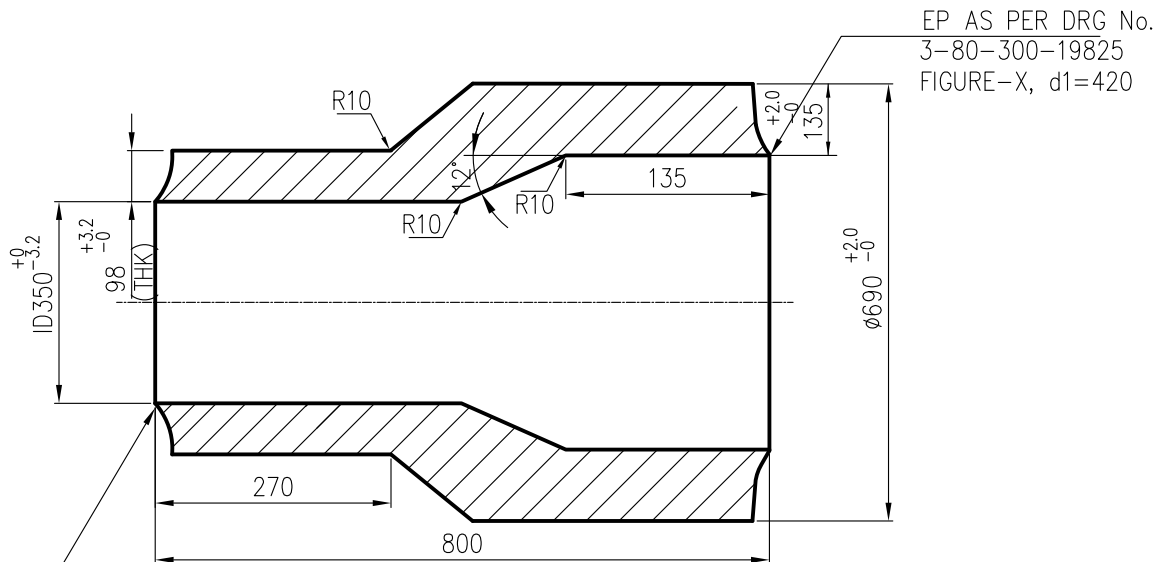
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					CHD	KONDAPANAU		30.01.18	
					APPD	R.SESHAGIRI		30.01.18	
DEPT	GRADE OF UNTOL.DIM		SCALE	WEIGHT (KG).	REF.NO:			ITEM NO.	NO. OF ITEMS
CODE	C / M / F		N.T.S		SAFETY VALVE STUB FOR NORTH CHENNAI AND TELANGANA				
TITLE FORGING OD275 L=300 (SA182F92)				CARD CODE U 01	DRAWING NO. 4-80-300-81903			REV 01	

REV 01	DATE	ALTERED :
		CHD & APPD :



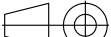
NOTES:

- 01 DESIGN PRESSURE : 300 kg/sq.cm(g)
- 02 DESIGN TEMPERATURE : 610 °C
- 03 HARD PUNCH "F92" AT PLACE MARKED WITH *
- 04 FOLLOW APPLICABLE TDC

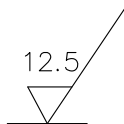


EP AS PER DRG No.
3-80-300-19825
FIGURE-X, d1=350

VARIANT NUMBER	DESCRIPTION	STD	MATCHING PIECE ID350X98/OD690X135 L=800		A/C/P	UNIT	1305		514	
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			SA 182 F92							
			MATERIAL CODE				UNIT WEIGHT(KG)			
			MATERIAL SPECN				QUANTITY			

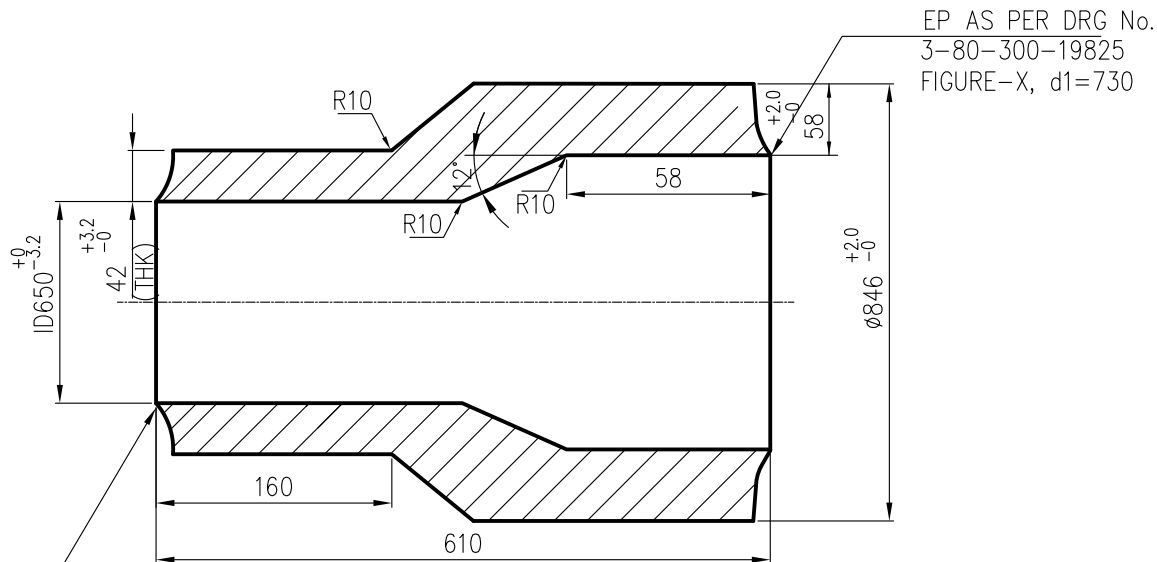
 BHARAT HEAVY ELECTRICALS LIMITED PIPING CENTRE CHENNAI 600 017				DRN	NAME P SURESH	SIGNATURE	DATE 08.11.17
				CHD	R SESHAGIRI		08.11.17
				APPD	R.SESHAGIRI		08.11.17
DEPT BM	ALL DIMENSIONS ARE IN MM	PROJECTION 	SCALE N.T.S	WEIGHT (Kg) 1305.514	REF TO ASSY / OLD DWG		
CODE 121					DRAWING NO : 4-80-301-81718		REV 00
TITLE MATCHING PIECE ID350X98/OD690X135–SA182F92							

REV 01	DATE	ALTERED :
		CHD & APPD :

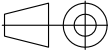


NOTES:

- 01 DESIGN PRESSURE : 70 kg/sq.cm(g)
- 02 DESIGN TEMPERATURE : 610 °C
- 03 HARD PUNCH "F92" AT PLACE MARKED WITH *
- 04 FOLLOW APPLICABLE TDC



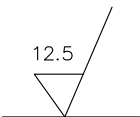
VARIANT NUMBER	DESCRIPTION	STD	MATCHING PIECE ID650X42/OD846X58 L=800		A/C/P	UNIT	92 117 258 0000		757	883
			SA 182 F92							
			MATERIAL CODE				UNIT WEIGHT(KG)			
			MATERIAL SPECN				QUANTITY			

		BHARAT HEAVY ELECTRICALS LIMITED PIPING CENTRE CHENNAI 600 017			DRN	NAME P SURESH	SIGNATURE	DATE 08.11.17
					CHD	R SESHAGIRI		08.11.17
					APPD	R.SESHAGIRI		08.11.17
DEPT BM	ALL DIMENSIONS ARE IN MM	PROJECTION 	SCALE N.T.S	WEIGHT (Kg) 757.883	REF TO ASSY / OLD DWG			
CODE 121	TITLE MATCHING PIECE ID650X42/OD846X58-SA182F92				DRAWING NO : 4-80-310-81719			REV 00

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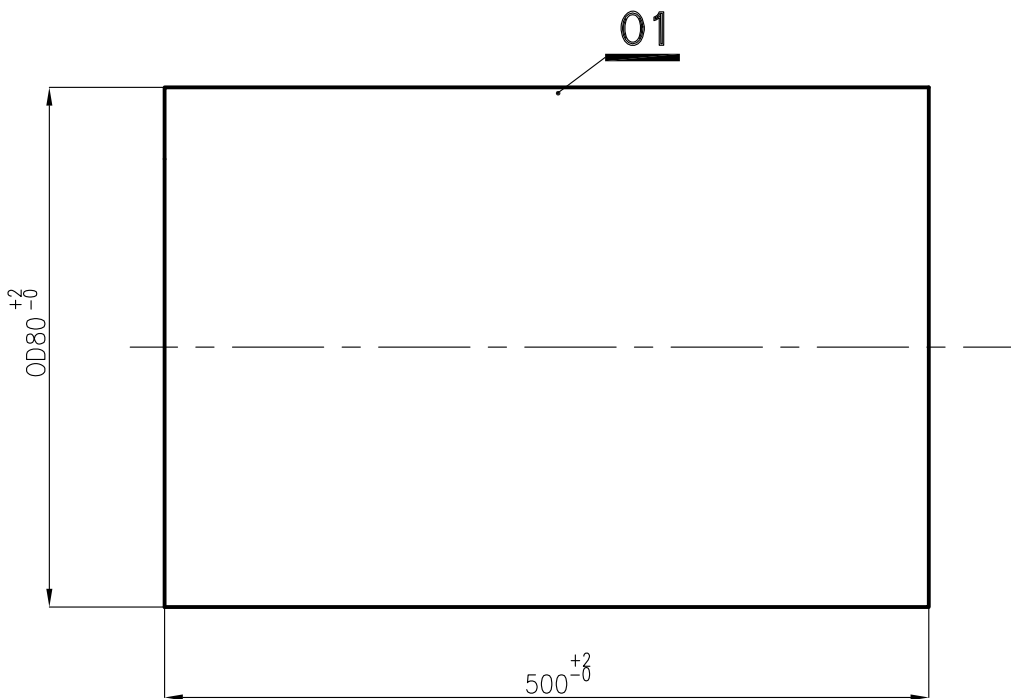
REV	DATE	ALTERED:
01		APPROVED:

ALL DIMENSIONS ARE IN MILLIMETRES

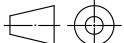


NOTES :-

1. DESIGN PRESSURE : 300 Kg/Cm² (g)
2. DESIGN TEMPERATURE : 610° C



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						1	
ITEM NO.	DESCRIPTION	STD	MATL. CODE	A	UNIT	UNIT.WT.(Kg)	
			MATL. SPECN.			QTY.	

			BHARAT HEAVY ELECTRICALS LIMITED PIPING CENTRE CHENNAI 600 017			DRN	NAME RP SINGH	SIGN	DATE 30.01.18	NO.OF VAR
						CHD	KONDAPANAI DU		30.01.18	
						APPD	R.SESHAGIRI		30.01.18	
DEPT	GRADE OF UNTOL.DIM		SCALE N.T.S	WEIGHT (KG).	REF.NO:			ITEM NO.	NO. OF ITEMS	
CODE	C / M / F									
TITLE FORGING OD80 L=500 (SA182F92)				CARD CODE U 01	DRAWING NO. 4-80-310-81947			REV 00		

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Size A4