

Enq 4212200001 dt 04.02.2022

**Fabrication and Supply of Flash Tank and Flash Tank Drain Tank (Non IBR Tanks) for
Sagardighi project (With Vendor material)**

Date- 07.02.2022

Dear Sir / Madam,

Sub: Fabrication & Supply of Flash Tank and Flash Tank Drain Tank (Non IBR Tanks) for Sagardighi project (With Vendor material) as per BHEL Enquiry No 4212200001 dt 04.02.2022.

With regard to the subject tender for the Fabrication & Supply of Flash Tank and Flash Tank Drain Tank (Non IBR Tanks) for Sagardighi project (With Vendor material) as per BHEL Enquiry No 4212200001 dt 04.02.2022, Corrigendum dt 07.02.2022 is being issued for the following-

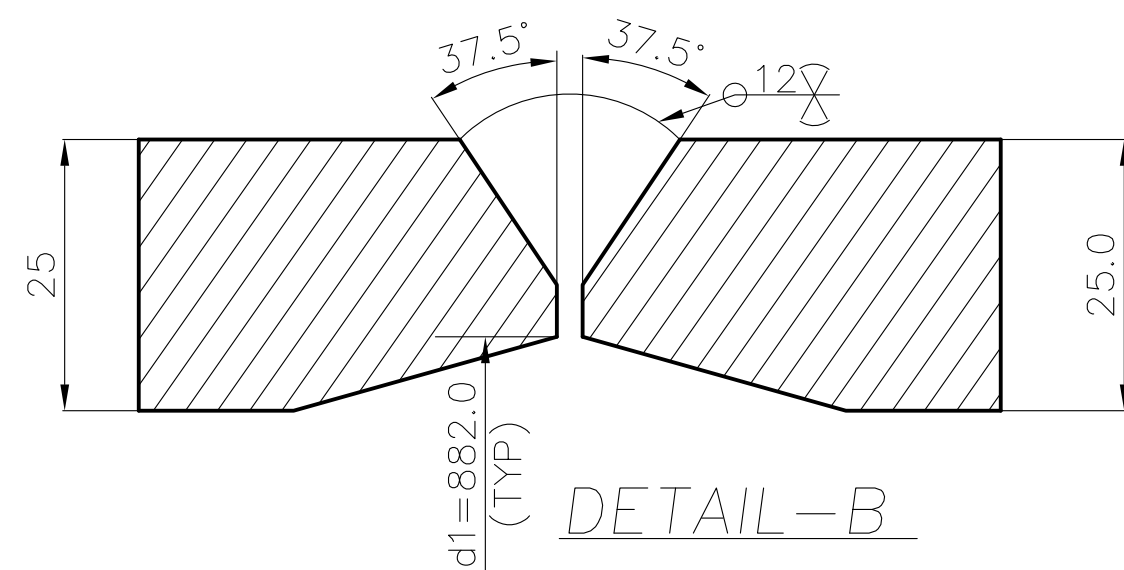
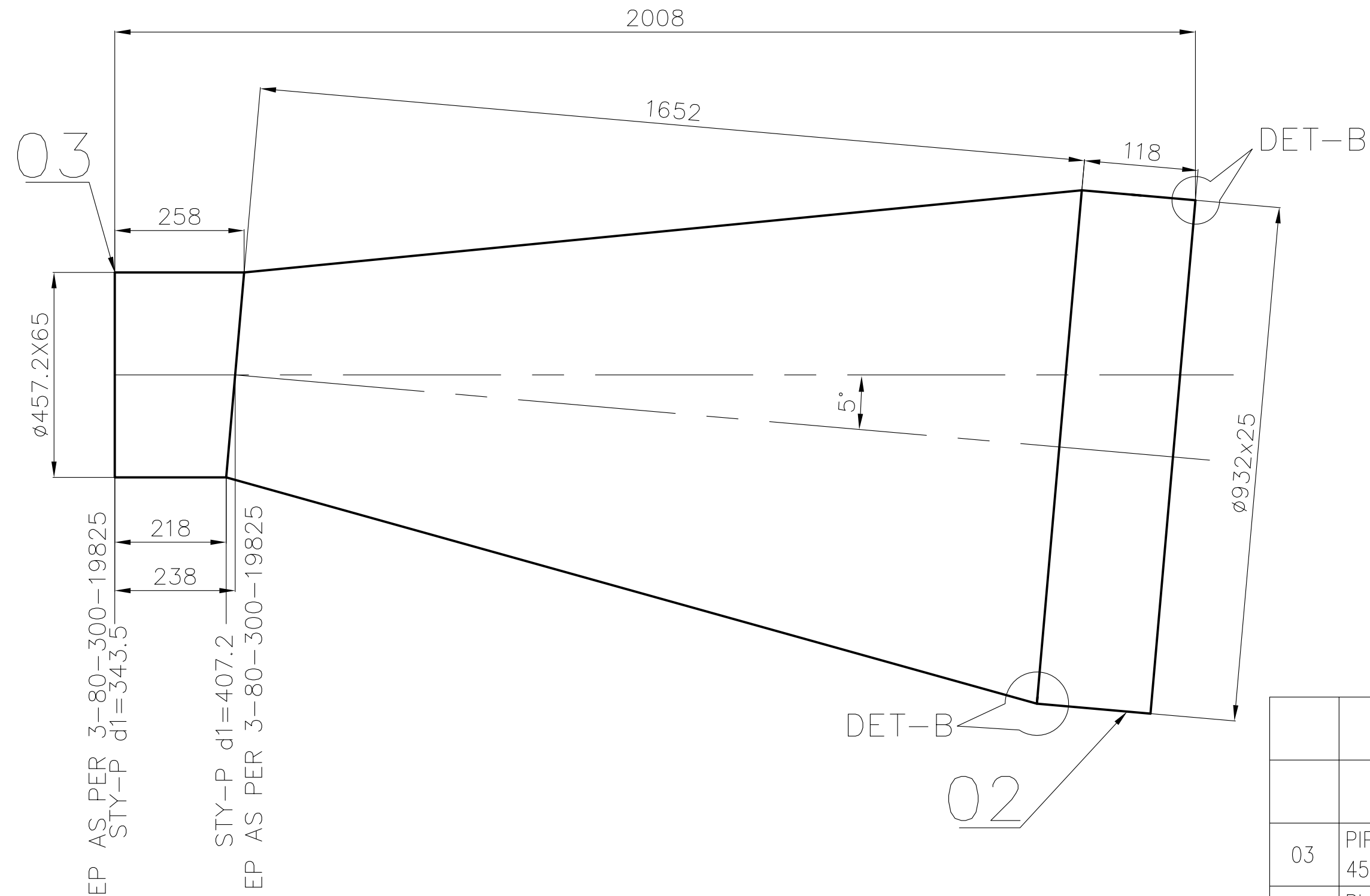
- R00 of drawing no 3-81-060-02912 (FAB.REDUCER OD932 / OD457.2) is enclosed for reference.

For BHEL Piping Centre,

Anil Sree
Dy.Manager / Outsourcing
BHEL Piping Centre

CAUTION

DRAWING NO.

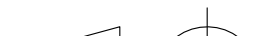


| | | |
|-----------|------|----------|
| REV 01 | DATE | ALTERED |
| | | APPROVED |
| ZONE | | |

| | | | | | | |
|----------|---|----------------|----------|-----------------|---|----------|
| | | | | | | |
| | | | | | | |
| | | | | | | |
| 03 | PIPE 457.2x65 L=258 | 3-81-060-02912 | | 15 083 350 5000 | C | 162 194 |
| | | | | SA 106 GRC | | 1 |
| 02 | PLATE FORMED PIPE OD932x25 L=118 | 3-81-060-02912 | | 15 942 114 0000 | C | 66 136 |
| | | | | SA 515 GR.70 | | 1 |
| 01 | PLATE FORMED REDUCER OD932 / OD457.2 | 4-81-060-06103 | | 15 942 114 0000 | C | 698 436 |
| | | | | SA 515 Gr.70 | | 1 |
| ITEM NO. | DESCRIPTION | DRAWING NO. | ITEM NO. | MATERIAL CODE | A | UNIT WT. |
| | | | VAR NO. | MATERIAL SPEC. | C | QTY. |

TYPE OF PRODUCT
OR NAME OF
CUSTOMER/PROJECT

| | | | | | | | |
|---|--------------------------------|--|------|------------|------|----------|----------------|
|  | BHARAT HEAVY ELECTRICALS LTD., | | DESN | NAME | SIGN | DATE | NO OF ITEMS |
| | PIPING CENTRE, | | CHD | E.KRITHIGA | -SD- | 30.05.18 | |
| | CHENNAI 600 017 | | APPD | VENKAT | -SD- | 30.05.18 | |
| | | | | SARAVANAN | -SD- | 30.05.18 | |

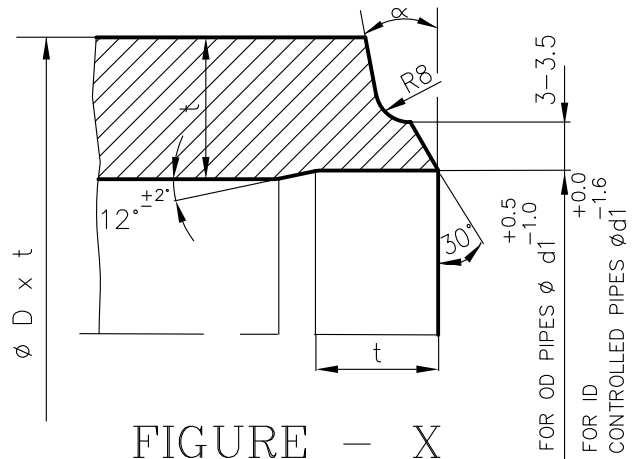
| | | | | | | |
|-------------------------|-------------------------|---|-------|--------------|-----------------------|-------------|
| DEPT. | GRADE OF UN TOL. DIM |  | SCALE | WEIGHT (Kg). | REF TO ASSY / OLD DRG | ITEM No. |
| CODE | C/M/F | | | 926.766 | | |
| TITLE | | | | CARD CODE | DRAWING No. | REV |
| FAB.REDUCER OD932/457.2 | | | | U 01 | 3-81-060-02912 | 00 |

1. EP TO BE FOLLOWED AS PER DETAIL GIVEN.
2. FOLLOW APPLICABLE QP.
3. WELDED PORTIONS SHALL HAVE A UNIFORMLY SMOOTH TOOL FINISH WITHOUT BURRS, WELD SPATTER, CRACKS ETC.
4. FULL PENETRATION OF WELDS TO BE ENSURED
5. FOR ITEM NO.03, P.F. PIPE IS ALSO ACCEPTABLE FOR FABRICATING THIS PIPE, RAW MATERIAL OF PLATE WITH MATERIAL CODE 159421221400(PLATE T=65,SA515GR70) CAN BE USED.

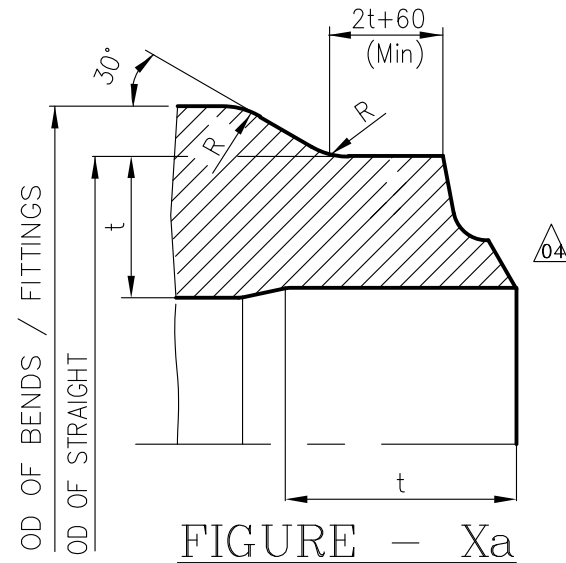
DRAWING No. 3-80-300-19825

NOTES: — 01. APPLICABLE FOR P91/P92
i) STRAIGHT WITH STRAIGHT/FITTING
ii) BEND WITH BEND/FITTING

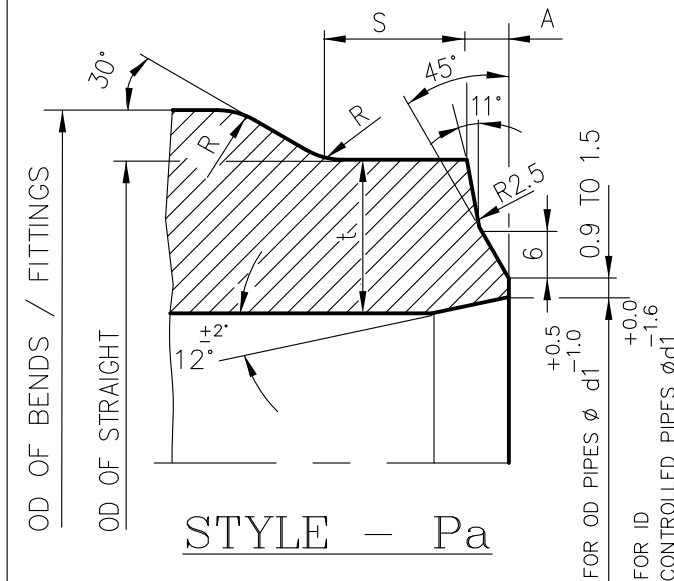
02. FOR OD MISMATCH, REFER FIGURE-Xa
03. REFER STYLE-DL FOR THICKNESS <14.2mm (FOR ALL OD/ID)
04. REFER STYLE-PL
i) WHEN THICKNESS IS ≥ 14.2 mm & <20mm (FOR ALL OD/ID)
ii) WHEN THICKNESS ≥ 20 mm & OD <219.1mm.
05. $\alpha = 6^\circ$ FOR WALL THICKNESS ≥ 20 mm AND ≤ 30 mm
06. $\alpha = 10^\circ$ FOR WALL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



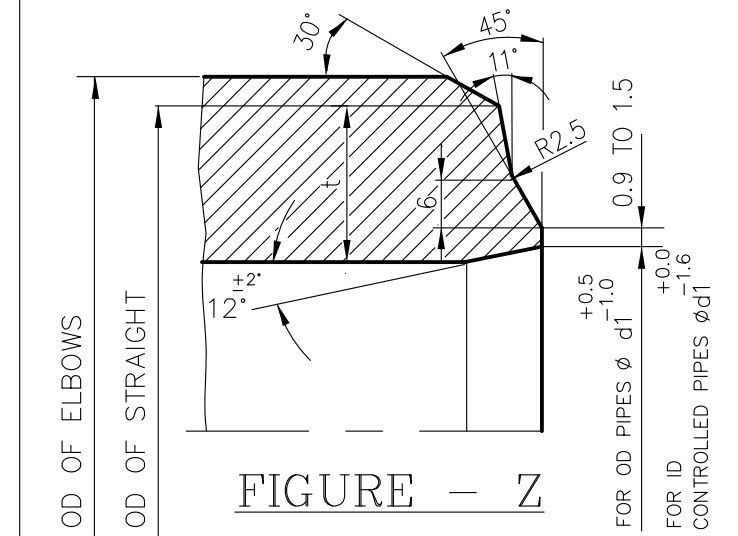
MATCHING EDGE PREPARATION
FOR MISMATCH OD APPLICABLE FOR
BENDS/FITTINGS OF P91/P92 MATERIALS
NOTES: —
01. OD OF STRAIGHT TO BE PHYSICALLY MEASURED/VERIFIED.
02. t = THK OF CONNECTING PIPE (STRAIGHT)



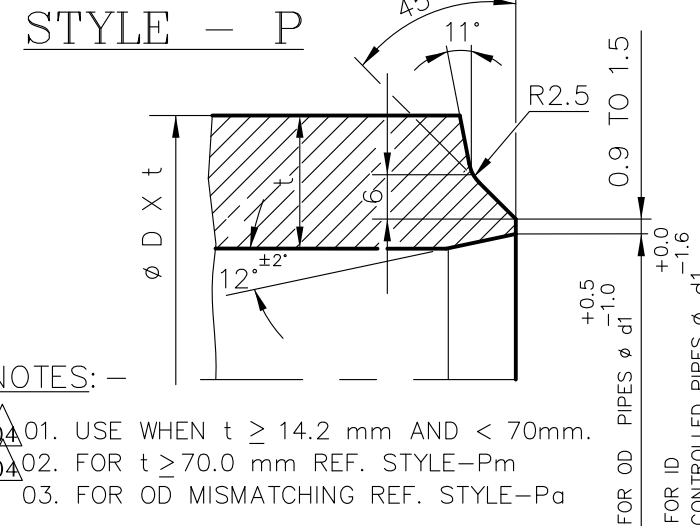
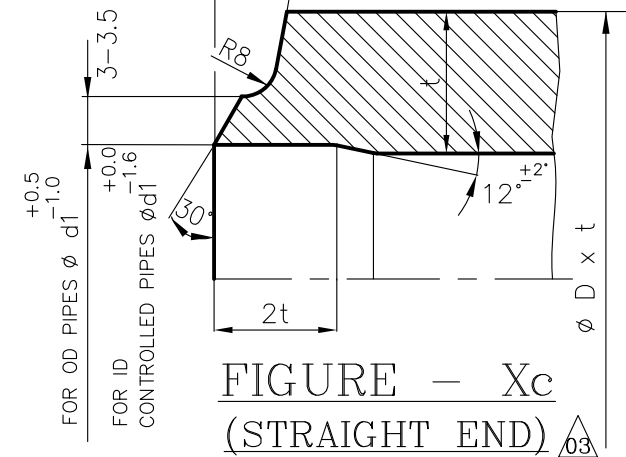
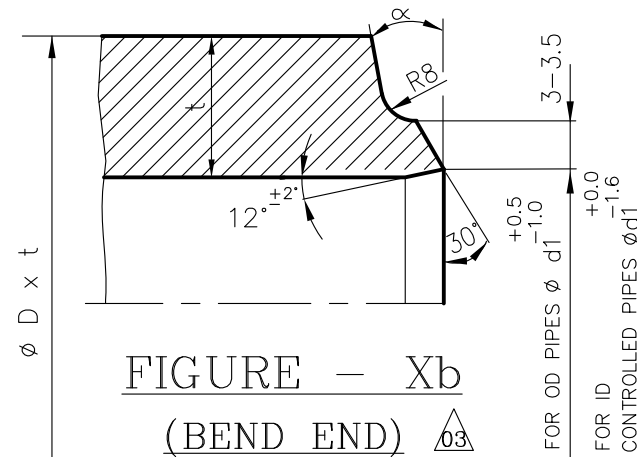
MATCHING EDGE PREPARATION FOR MISMATCH OD
DIAMETRICALLY GREATER THAN 8 mm
(ie OD1 - OD2 > 8mm) APPLICABLE FOR
BENDS/FITTINGS OTHER THAN P91/P92 MATERIALS
NOTES: —
01. OD OF STRAIGHT TO BE PHYSICALLY MEASURED/VERIFIED.
02. WHEN $t < 65$, $S+A = 65$ Min. & $t > 65$, $S=65$ Min.
WHERE t=THK OF CONN.PIPES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



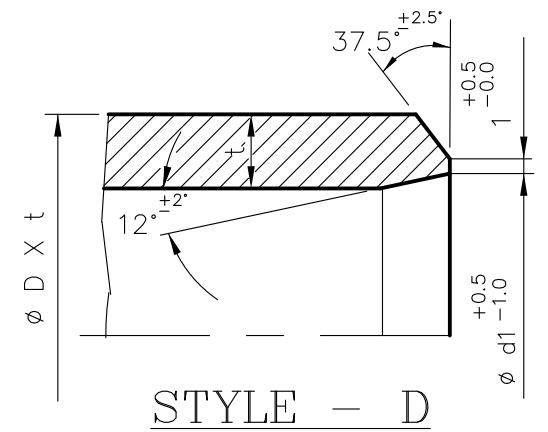
MATCHING EDGE PREPARATION FOR MISMATCH OD
DIAMETRICALLY GREATER THAN 8 mm
(ie OD1 - OD2 > 8mm) APPLICABLE FOR
ELBOWS OTHER THAN P91/P92 MATERIALS
NOTES: —
01. OD = OUTSIDE DIA OF CONN. PIPE (STRAIGHT)
TO BE PHYSICALLY MEASURED/VERIFIED.
02. t = THK OF CONN.PIPES (STRAIGHT)
03. t = THK OF CONN.PIPES (STRAIGHT)



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-DL 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



NOTES: —
01. USE WHEN $t < 14.2$ mm.



TYPE OF PRODUCT
OR NAME OF
CUSTOMER/PROJECT

STANDARD

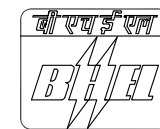
GENERAL NOTES :

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
K.B.RAGUNATH

CHD

M.C.SEKARAN

APPD

A.VELAYUTHAM

WEIGHT (Kg).

NAME OF ORIGINAL
ORGANISATION

CARD
CODE

DRAWING No.

U 01

3-80-300-19825

SHEET 1 OF 2

NO OF
ITEMS

ITEM
No.

REV

04

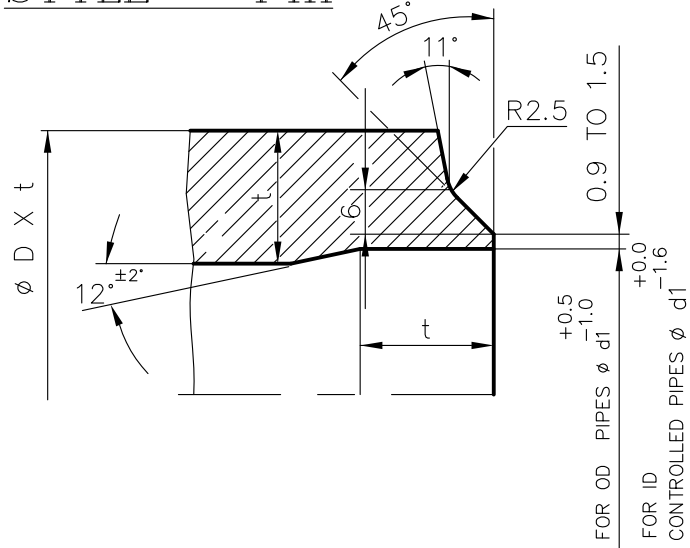
SIZE A3

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3-80-300-19825

DRAWING No.

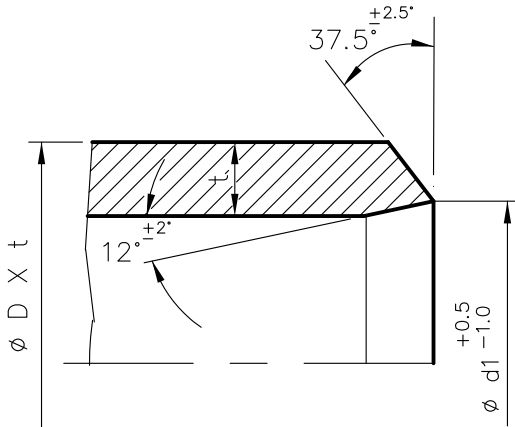
STYLE - P_m



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.

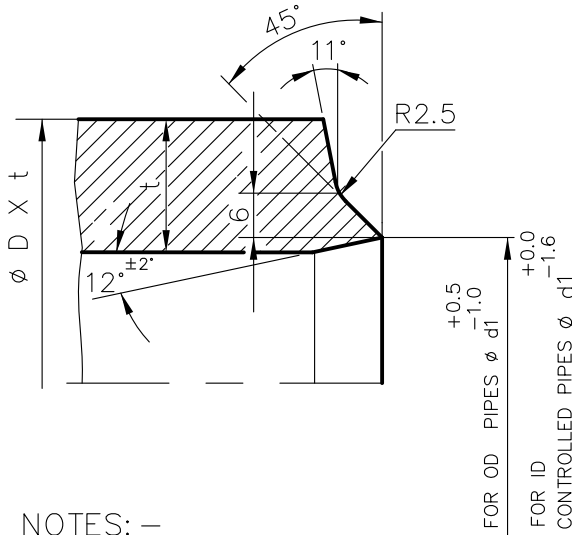
STYLE - D_L



NOTES: -

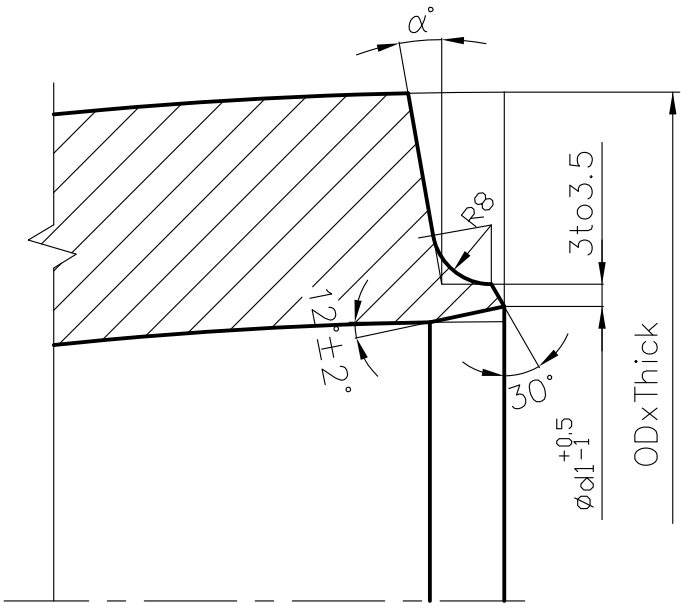
01. USE FOR P91 / P92 PIPES AND FITTINGS WHEN $t < 14.2$ mm (ALL OD/ID).

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

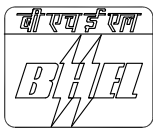
FIGURE-X_f

NOTE :

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

TYPE OF PRODUCT
OR NAME OF
CUSTOMER/PROJECT

STANDARD

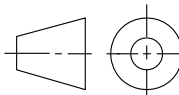


BHARAT HEAVY ELECTRICALS LTD.,
PIPING CENTRE, MADRAS

| 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

SCALE

WEIGHT (Kg).

NAME OF ORIGINAL
ORGANISATION

ITEM
No.

TITLE

EDGE PREPARATION
DETAILS

CARD
CODE

U 01

DRAWING No.

3-80-300-19825

SHEET 2 OF 2

REV

04