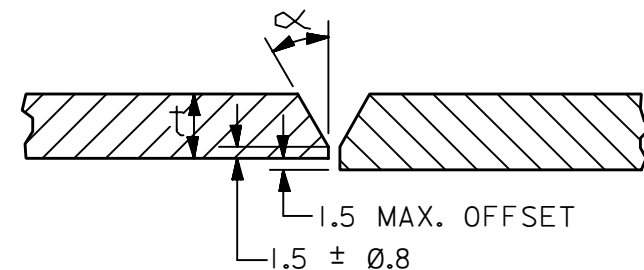
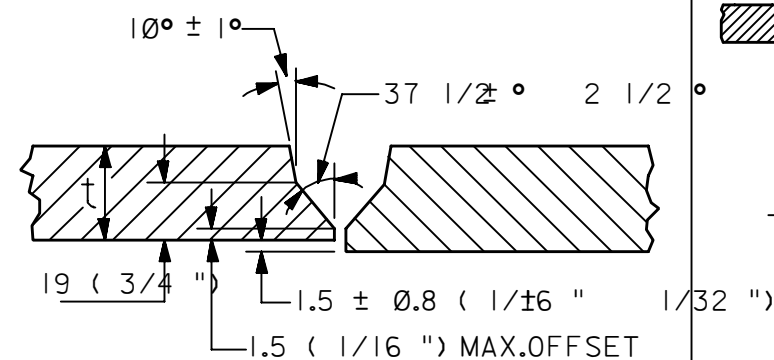


FOR PIPE WITH $t=22 \text{ mm } (7/8")$ &
THINNER: $\alpha = 30^\circ$
FOR BUTT WELDING FITTINGS:
 $\alpha = 37 \frac{1}{2}^\circ$ $2 \frac{1}{2}^\circ$



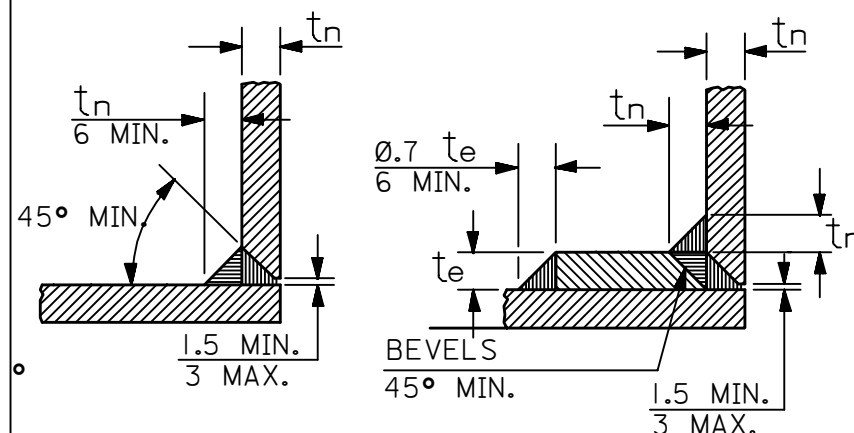
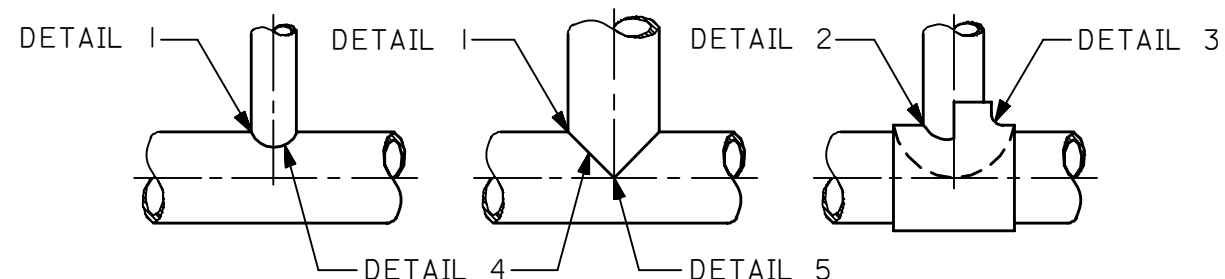
FOR $t=\text{OVER } 22 \text{ mm } (7/8")$



BUTT WELD DETAILS

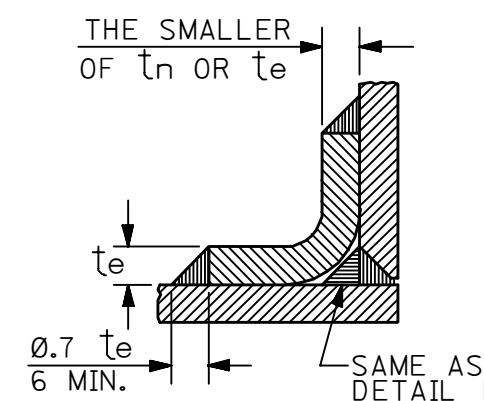
FOR JOINING PARTS WITH UNEQUAL WALL THICKNESSES AND/OR MATERIALS OF UNEQUAL MINIMUM YIELD STRENGTH REFER TO ANSI B 31.4 FIG. 434.8.6.(a)-B. DETAILS (b) THROUGH (g) WITH EXPLANATORY NOTES.

BACK WELDING PER DETAIL (c) OR (d) IS MANDATORY IN THE CASE OF OFFSHORE PIPELINES AND PORTIONS OF X-GRADE CROSS COUNTRY PIPELINES IN PLANT AREAS TO AVOID TAPERING THE PART HAVING THE LOWER YIELD STRENGTH TO A THICKNESS LESS THAN DESIGN THICKNESS. TRANSITION NIPPLES MAY BE REQUIRED WHERE NECESSARY TO GET ACCESS TO THE INSIDE FOR BACKWELDING AND/OR TO PERMIT SHOP WELDING WHEN SPECIAL WELDING PROCEDURES MUST BE FOLLOWED.

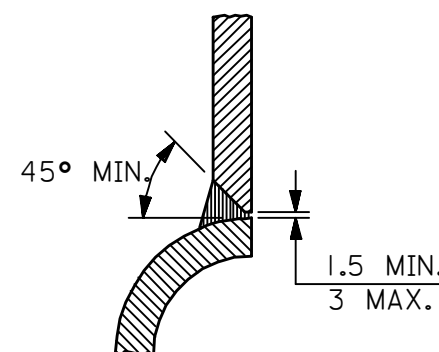


DETAIL 1

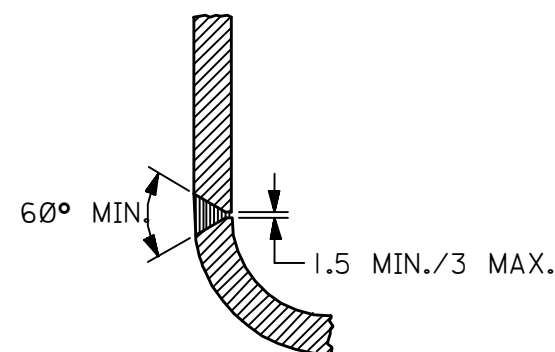
DETAIL 2



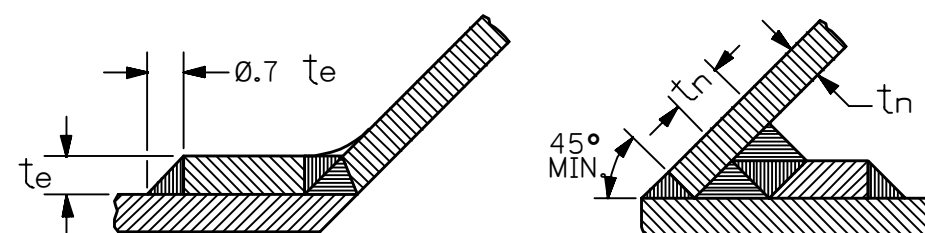
DETAIL 3



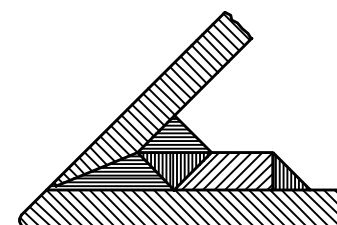
DETAIL 4



DETAIL 5



45° BRANCH WITH REINFORCEMENT



ALTERNATIVE FOR
SHOP FABRICATION ONLY

GENERAL NOTES

1. I.D. OF PIPE AND FLANGES TO MATCH WITHIN LIMITS SET IN BUTT WELD DETAILS.
2. FLANGE FACE TO BE NORMAL TO PIPE AXIS UNLESS OTHERWISE NOTED.
3. GRIND SMOOTH OR MACHINE INTERNAL WELDED JOINT AT ORIFICE FLANGES.
4. FLANGE DIMENSIONS, FACING AND DRILLING SHALL CONFORM TO ANSI STANDARDS OR TO ARAMCO STANDARD DRAWINGS FOR SIZE AND RATINGS SHOWN.
5. BOLT HOLES SHALL STRADDLE VERTICAL CENTER LINE EXCEPT AS NOTED.
6. DIMENSIONS ON FLANGES: FOR RAISED FACE AND FOR RING JOINTS, CONTACT DIMENSIONS ARE TO RAISED FACE.
7. PIPE SIZES CALLED FOR REFER TO NOMINAL DIA. ONLY UNLESS OTHERWISE SPECIFIED.
8. FABRICATION, METHOD OF WELDING & WELD ROD SHALL CONFORM TO SPECIFICATION 01-AMSS-10.
9. F.W. DENOTE FIELD WELDS FOR FIELD ERECTION.
10. INSIDE EDGES OF THE FINISHED OPENING IN PIPE FOR BRANCHES, SHALL BE ROUNDED TO A 3 MM (1/8") RAD.
11. FOR JOINING PARTS WITH UNEQUAL WALL THICKNESS SEE NOTES AT BUTT WELD DETAILS.
12. ALL DIMENSIONS IN MILLIMETERS UNLESS NOTED OTHERWISE.

REFERENCE DRAWINGS

GUIDE TO REINFORCEMENT OF WELDED BRANCH CONNECTIONS.	AB-036719
DIMENSIONAL TOLERANCES FOR FABRICATED PIPING.	AE-036705

TYPICAL INSTALLATION DRAWING

05	06-13-87	RLO	RELOCATE DIMENSION LINE OF DETAIL 2. ADDED TOLERANCE DETAIL 5.			
04	08.03.85	LML	REDRAWN FOR CLARITY.			
REV. NO.	DATE	BY	DESCRIPTION	CH'K'D	CERT.	APP'D

FOR ARABIAN AMERICAN OIL COMPANY

DRAWN BY N.G.M. CHECKED BY SCALE NONE
DATE STARTED 08-23-72 DATE COMPLETED 08-24-72
OPR'G DEPT. ENG DEPT.

THIS DRAWING IS NOT TO BE USED FOR CONSTRUCTION OR FOR ORDERING MATERIAL UNTIL CERTIFIED AND DATED

CERTIFIED
DATE

CONSTRUCTION NOTES AND WELDING DETAILS
FOR ISOMETRIC PIPING DETAIL SHEET
STD. DWG. METRIC

PLANT NO.	INDEX	DRAWING NUMBER	SHEET NO.	REV. NO.
990	L	AD-036627	001	05