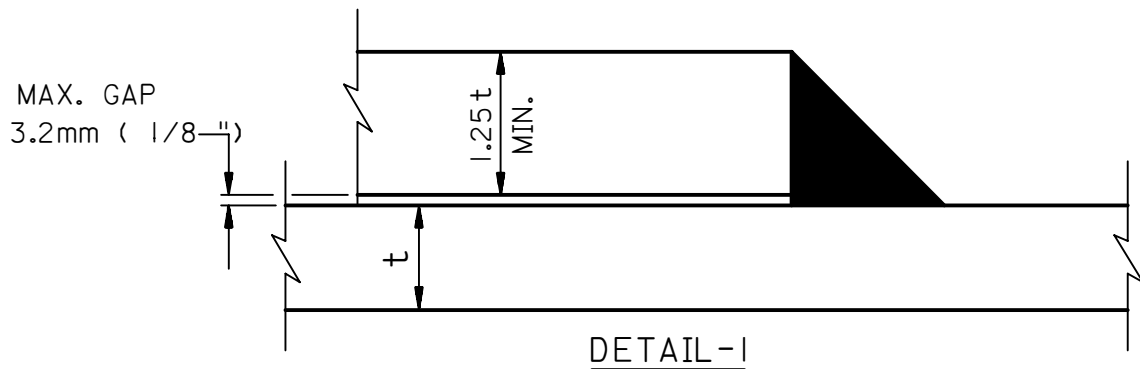
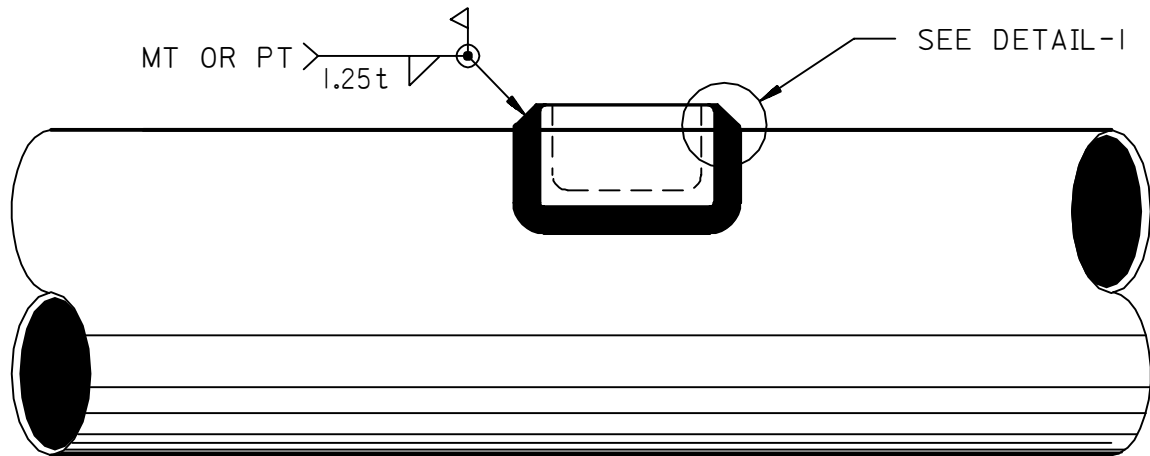


SAUDI ARABIAN OIL COMPANY

NOTES:FABRICATION NOTES

1. PATCH MATERIAL GRADE SHALL BE EQUAL TO OR HIGHER THAN THE PIPE.
2. PATCH THICKNESS SHALL BE AT LEAST 1.25 TIMES THE NOMINAL PIPE WALL THICKNESS.
3. THE PATCH SHALL BE FABRICATED TO FORM WITH THE CONTOUR OF THE PIPE. THE MAXIMUM LENGTH OR WIDTH OF THE PATCH SHALL NOT EXCEED 152mm (6in.) THE CORNERS SHALL BE ROUNDED WITH A MINIMUM 51mm (2in.) RADIUS.

FIELD INSTALLATION NOTES

1. THIS REPAIR PATCH MAY BE USED TO REPAIR MINIMUM WALL VIOLATIONS DUE TO EXCESSIVE GRINDING OR EXTERNAL CORROSION. THIS REPAIR PATCH SHALL NOT BE USED FOR PRESSURE RETAINING (LEAK REPAIR) OR FOR MINIMUM WALL VIOLATIONS DUE TO INTERNAL CORROSION. REFER TO G.I. 434.000, PARA. 3.4.5.
2. ALL WELDING SHALL BE MADE USING LOW HYDROGEN ELECTRODES IN ACCORDANCE WITH SAUDI ARAMCO WELDING PROCEDURE SPECIFICATION (WPS) PL-R1 AND PL-R2. REFER TO G.I. 434.000 FOR ADDITIONAL MANDATORY WELDING AND SAFETY REQUIREMENTS.
3. THE MAXIMUM FIT-UP GAP BETWEEN THE PATCH AND PIPE SURFACE SHALL NOT EXCEED 3.2mm (1/8 in.) GRIND FLUSH ANY LONGITUDINAL, SPIRAL, OR GIRTH WELDS ON THE PIPE WHICH INTERFERE WITH THE FIT-UP. ALL WELDS SHALL BE FULL SIZE.
4. ALL WELDS SHALL HAVE FINAL MAGNETIC PARTICLE OR LIQUID PENETRANT (M.T. OR P.T.) INSPECTION.

TYPICAL INSTALLATION DRAWING

APPD.			
CERT.			
CHKD.			
DESCRIPTION			
JO/EWO			
BY			
DATE			
NO.			
REVISIONS			
DRAWN BY <u>AVM (ESSD)</u>			
DATE <u>09-13-92</u>			
CHKD. BY _____			
OPRG. DEPT. _____			
BY _____			
DATE _____			
ENG. DEPT. _____			
BY _____			
DATE _____			
APP'D. FOR CONSTR. _____			
BY _____			
DATE _____			
CERTIFIED _____			
BY _____			
DATE _____			
THIS DRAWING IS NOT TO BE USED FOR CONSTRUCTION OR FOR ORDERING MATERIAL UNTIL CERTIFIED AND DATED.			

DRAWING TITLE	PLANT NO.	INDEX	DRAWING NO.	SHT. NO.	REV. NO.
PIPELINE REPAIR PATCH FOR MINIMUM WALL THICKNESS VIOLATIONS	990	L	AE-036265	001	00
STD. DWG. METRIC	JO/EWO-				