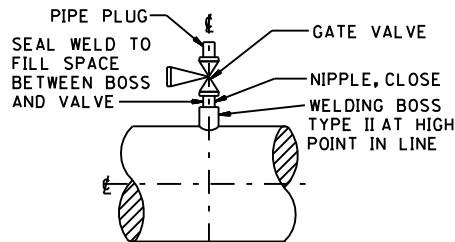
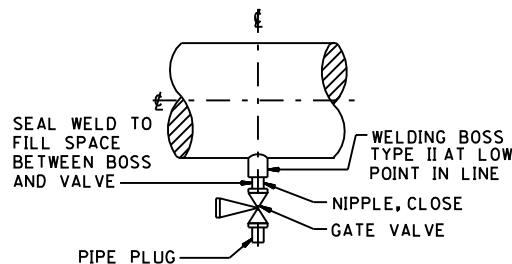


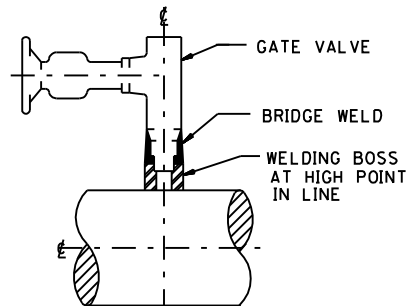
14	001	AC-036045	L	990
PLANT NO.	INDEX	DRAWING NUMBER	SHT. NO.	REV. NO.



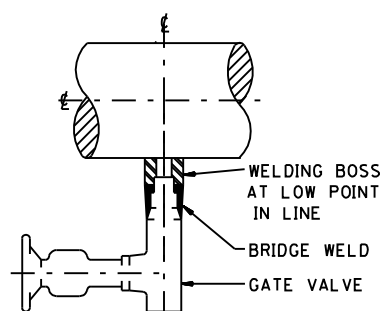
VENT (1 1/2" & BELOW)
DETAIL-1
(SEE NOTES 2 & 3)



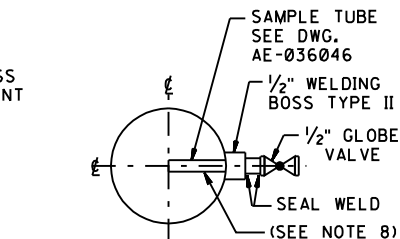
DRAIN (1 1/2" & BELOW)
DETAIL-4
(SEE NOTES 2 & 3)



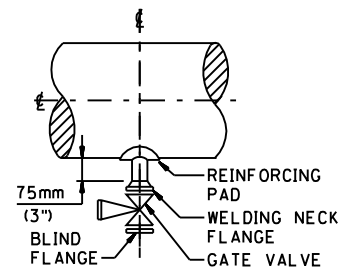
VENT (1 1/2" & BELOW)
DETAIL-2
(SEE NOTES 2 & 3)



DRAIN (1 1/2" & BELOW)
DETAIL-5
(SEE NOTES 2 & 3)



1/2" SAMPLE CONNECTION
DETAIL-3



DRAIN (2" & ABOVE)
DETAIL-6

PIPE VOLUME m ³	PIPE VOLUME (FT ³)	DRAIN SIZE INCHES
0 TO 4.5	(0 TO 160)	1
4.6 TO 14.1	(161 TO 500)	1 1/2
14.2 TO 34.0	(501 TO 1200)	2
34.1 AND ABOVE	(1201 AND ABOVE)	3

NOTES:

1. MATERIALS SHALL CONFORM WITH SAUDI ARAMCO ENGINEERING STANDARDS. SEE SAES-L-105 FOR ACCEPTABLE SPECIFICATION LISTS.
2. DETAILS 2 & 5 WITH EXTENDED BODY VALVES ARE PREFERRED OVER DETAILS 1 & 4. USE OS & Y VALVES WITH BOLTED BONNETS.
3. WHEN DETAIL 1 & 4 ARE USED IN THE VICINITY OF PUMPS OR CONTROL VALVES, ADDITIONAL BRACING MAY BE REQUIRED. USE WELDED BONNET VALVES.
4. FLANGED VALVES ARE REQUIRED FOR CONNECTION 2 INCH OR LARGER. THEY MAY ALSO BE USED FOR SMALLER OUTLETS.
5. CHECK APPROPRIATE ANSI CODE TO DETERMINE POSSIBLE NEED FOR FULL CIRCUMFERENTIAL REINFORCEMENT OF OUTLETS 2 INCH OR OVER.
6. SEE STANDARD DRAWING AE-036175 FOR DRILL SIZES TO USE WITH BOSSES.
7. VALVES STEM ORIENTATION IS PREFERRED TO BE IN LINE WITH PIPE RUN IN DET. 1, 2, 4, 5 & 6.
8. SAMPLE PROBES TO BE LOCATED ON TOP OF PIPE FOR GAS SAMPLING (API MPMS 14.1, 7.4, 2) AND ON THE SIDE FOR LIQUID SAMPLING (API MPMS 8.2, 10.4).

REFERENCE DRAWINGS

STD. HEAVY WELDING BOSS	AE-036175
STD. SAMPLE TUBE	AE-036046
STD. HEAVY WELDING BOSS SOCKET WELD	AE-036643

TYPICAL INSTALLATION DRAWING

14	04/10	MSM	REVISED NOTES			
13	05/06	MSM	REVISED NOTES	HMM	MAS	
12	DEC92	ESSD ELT	DELETED DETAIL 7			
11	APR91	ASC	DRAWING REINSTATED & CADD'D PER CSD REQUEST	ORIGINAL SIGNED	ORIGINAL SIGNED	ORIGINAL SIGNED
REV. NO.	DATE	BY	JO/EWO	DESCRIPTION	CHKD.	CERT. APPD.

SAUDI ARABIAN OIL COMPANY

DRAWN BY _____ CHECKED BY _____ SCALE NONE
DATE STARTED _____ DATE COMPLETED _____
OPRG. DEPT. _____ ENG. DEPT. _____
APP'D FOR CONSTR. _____

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

DETAILS VENT, DRAIN & SAMPLE CONNECTIONS

STD. DWG.

PLANT NO.	INDEX	DRAWING NUMBER	SHT. NO.	REV. NO.
990	L	AC-036045	001	14