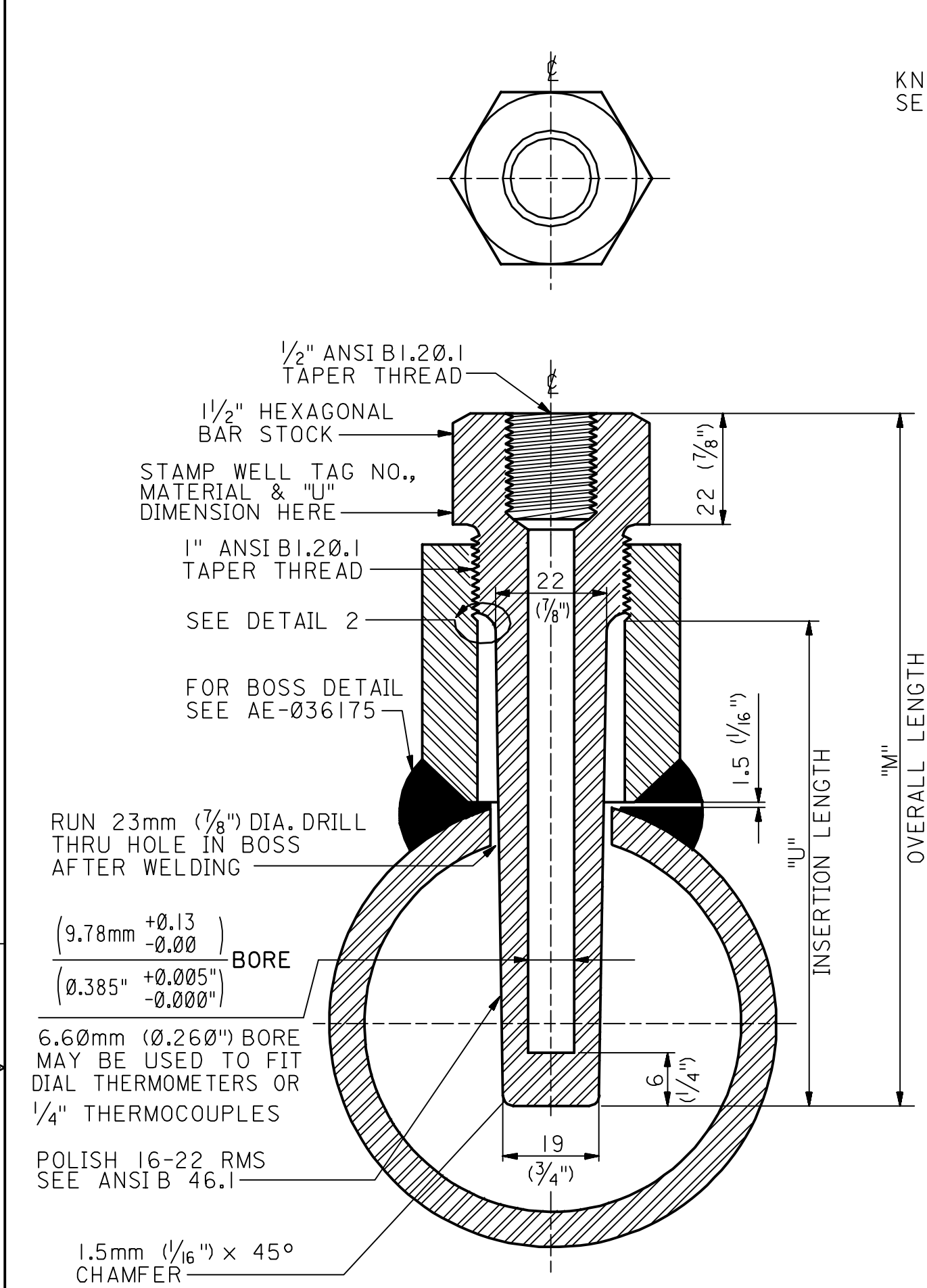
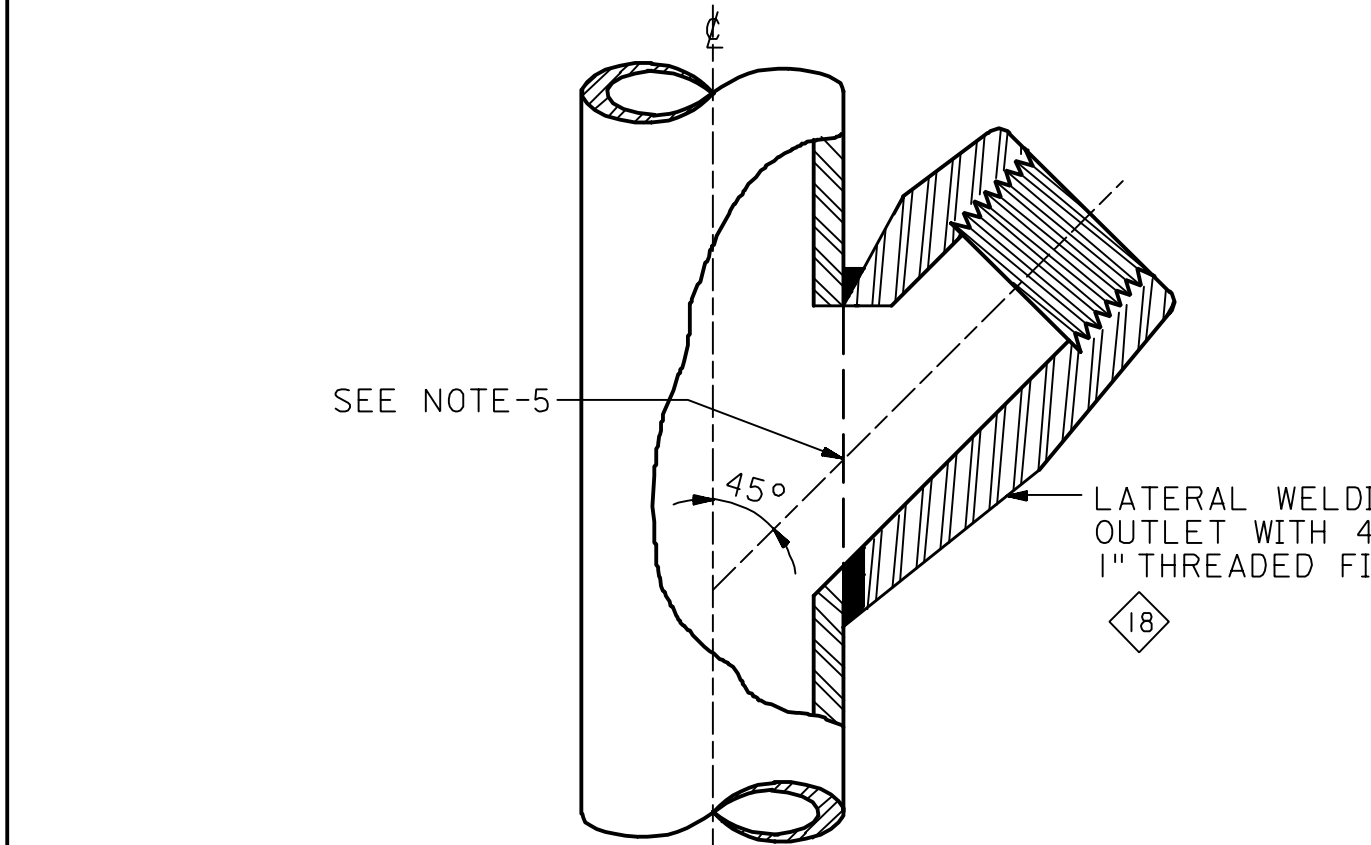


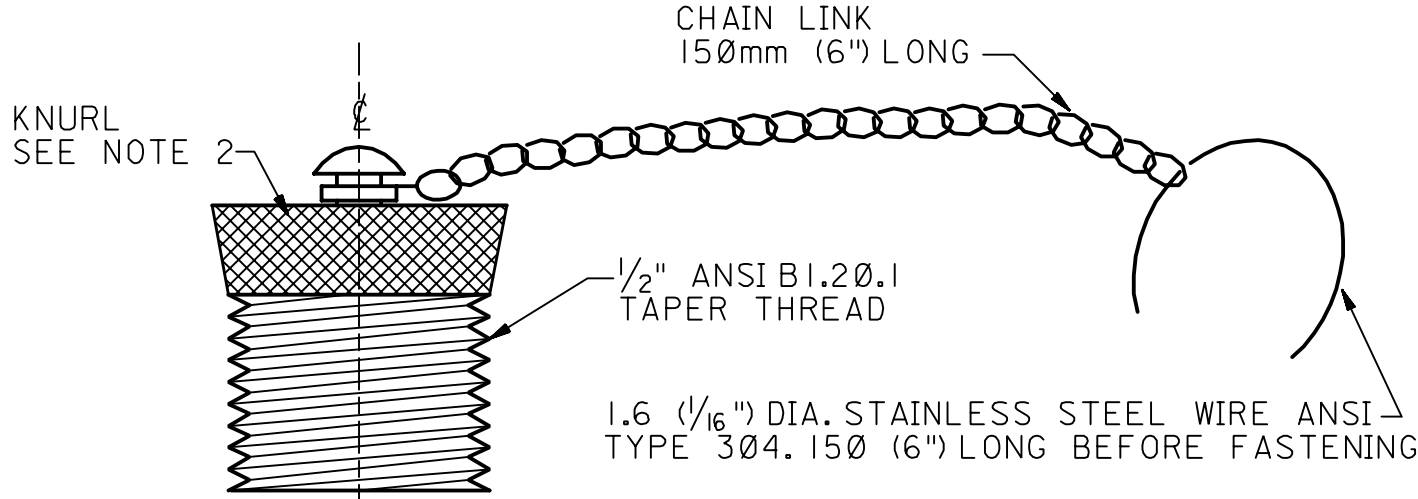
21	100	9AB-036019	J	066
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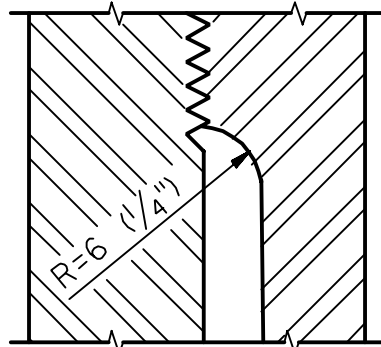
DETAIL 1
ASSEMBLY OF THERMOWELL
IN HORIZONTAL PROCESS LINES



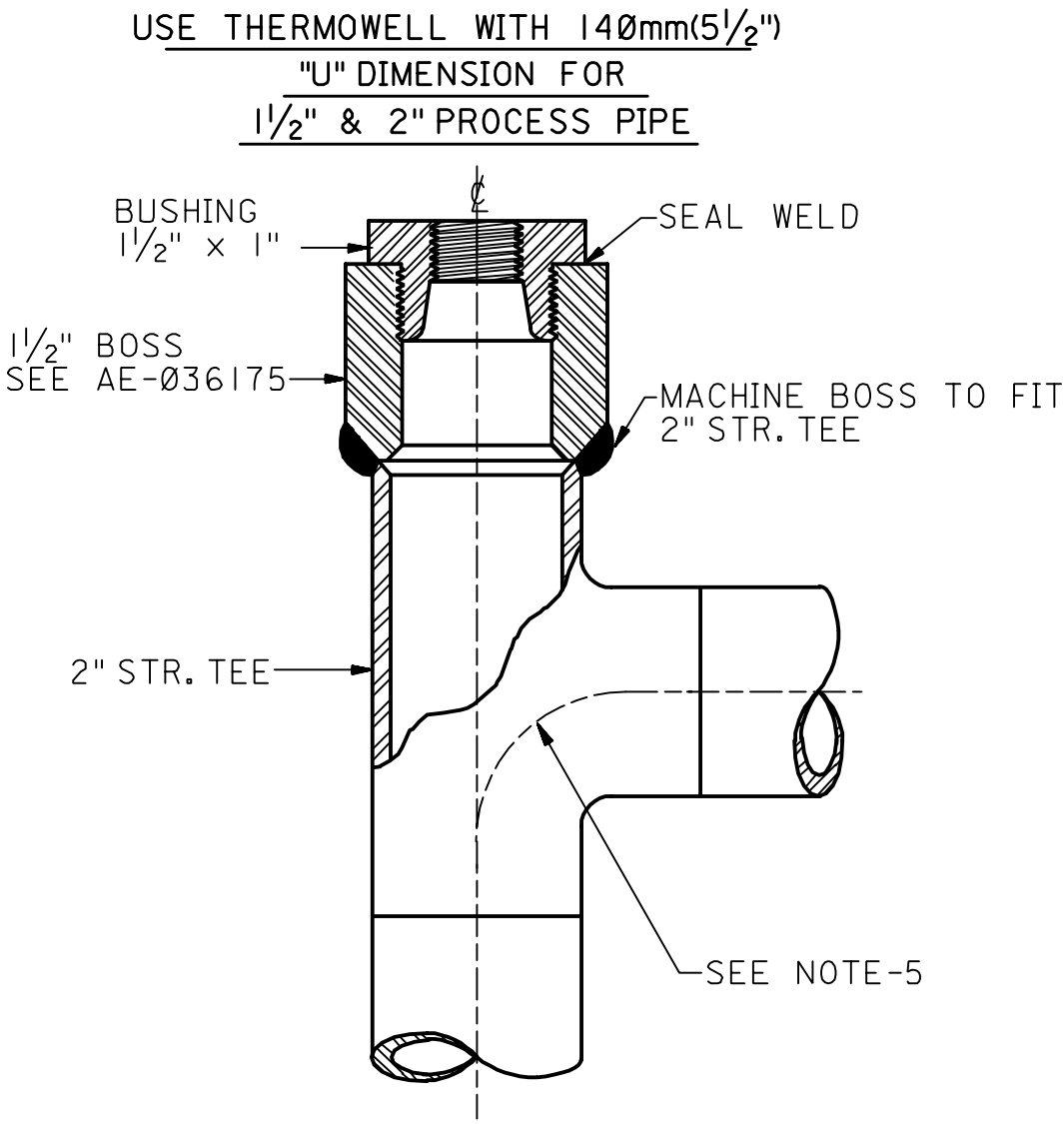
DETAIL 3
MOUNTING FOR THERMOWELL
IN VERTICAL PROCESS LINES



DETAIL OF
PLUG AND CHAIN



DETAIL 2



DETAIL 4
MOUNTING FOR THERMOWELL
IN 2" PROCESS LINES
(FOR 1 1/2" SEE NOTE-6)

NOM. PIPE SIZE IN WHICH WELL IS TO BE USED (In.)	HORIZONTAL PROCESS LINES		VERTICAL PROCESS LINES	
	SIZE OF WELL		SIZE OF WELL	
	"U"	"M"	"U"	"M"
1 1/2	SEE DETAIL 4			
2				
3	89 (3 1/2")	140 (5 1/2")	114 (4 1/2")	165 (6 1/2")
4	89 (3 1/2")	140 (5 1/2")	114 (4 1/2")	165 (6 1/2")
6	89 (3 1/2")	140 (5 1/2")	114 (4 1/2")	165 (6 1/2")
8	89 (3 1/2")	140 (5 1/2")	114 (4 1/2")	165 (6 1/2")
10	114 (4 1/2")	165 (6 1/2")	165 (6 1/2")	216 (8 1/2")
12	114 (4 1/2")	165 (6 1/2")	165 (6 1/2")	216 (8 1/2")
14	114 (4 1/2")	165 (6 1/2")	165 (6 1/2")	216 (8 1/2")
16	191 (7 1/2")	241 (9 1/2")	191 (7 1/2")	191 (7 1/2")
18	191 (7 1/2")	241 (9 1/2")	191 (7 1/2")	191 (7 1/2")
20	191 (7 1/2")	241 (9 1/2")	191 (7 1/2")	191 (7 1/2")
24	191 (7 1/2")	241 (9 1/2")	191 (7 1/2")	267 (10 1/2")
26	191 (7 1/2")	241 (9 1/2")	191 (7 1/2")	267 (10 1/2")
28 & LARGER	267 (10 1/2")	267 (10 1/2")	267 (10 1/2")	267 (10 1/2")

THERMOWELLS WITH LAGGING EXTENSION MAY HAVE OVERALL LENGTH "M" LARGER THAN 318mm (12 1/2") BUT INSERTION LENGTH "U" SHALL NEVER BE LARGER THAN 267mm (10 1/2").

- GENERAL NOTES**
1. MAXIMUM ALLOWABLE TEMPERATURES:
18-8 ALLOY STEEL WELLS & 400°C (750°F)
CARBON STEEL BOSSES
18-8 ALLOY STEEL WELLS & 535°C
(1000°F) BOSSES .
 2. ALL 18-8 CR. NI. STEEL TO BE ASTM A182
TYPE 316.
 3. HEXAGONAL HEAD, SQUARE HEAD OR
KNURLED HEAD OF BRASS STOCK IS
ACCEPTABLE FOR THE PLUG.
 4. FOR DETAILS 1 & 3 LOCATE THE THERMOWELL
TIP IN CENTER THIRD OF PROCESS PIPING IF
POSSIBLE.
 5. ALL DIMENSIONS ARE IN MILLIMETERS
(INCHES) UNLESS OTHERWISE NOTED. ALL
PIPE SIZES IN INCHES, NOMINAL.
 6. IN 1 1/2" PROCESS PIPE, USE THE FOLLOWING
ASSEMBLY:
1-2" THREADED TEE
1-2" x 1" BUSHING
2- 1 1/2" x 2" BUSHING
 7. FLOW MAY BE IN EITHER DIRECTION BUT
ORIENTATION OF FITTINGS SHALL BE AS
SHOWN.
 8. FOR ANSICLASS 1500 PRIMARY SERVICE
USE 41.4 mPa(ga) (6000 PSIG) OWG
THREADOLET.
 9. UPGRADING THE THERMOWELL ALLOY BEYOND
ASTM A182 TYPE 316 TO MORE CORROSION
RESISTANT ALLOYS (SUCH AS UNS N10276)
MAY BE NECESSARY IN SEVERELY CORROSIVE
SERVICES SUCH AS OFFSHORE
INSTALLATIONS. OBTAIN A MATERIAL
RECOMMENDATION FROM THE CONSULTING
SERVICE DEPARTMENT.

REFERENCE DRAWINGS	
DETAIL OF HEAVY WELDING BOSS FOR CONNECTIONS TO VESSELS AND LINES	AE-036175

FORMERLY LIB. DWG. NO. DB-950013, SHT. 001

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INSTRUMENTATION STANDARDS COMMITTEE

21	1/2002	MHJ	REVISED NOTES				
20	4/2001	MHJ	REINSTATED AS STD. DWG. AND REVISED NOTES				
REV. NO.	DATE	BY	JO/EWO	DESCRIPTION	CHKD.	CERT.	APPD.

SAUDI ARABIAN OIL COMPANY

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**THERMOWELL
ASSEMBLY AND DETAIL**

STD. DWG	SAUDI ARABIA			
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990	J	AB-036019	001	21