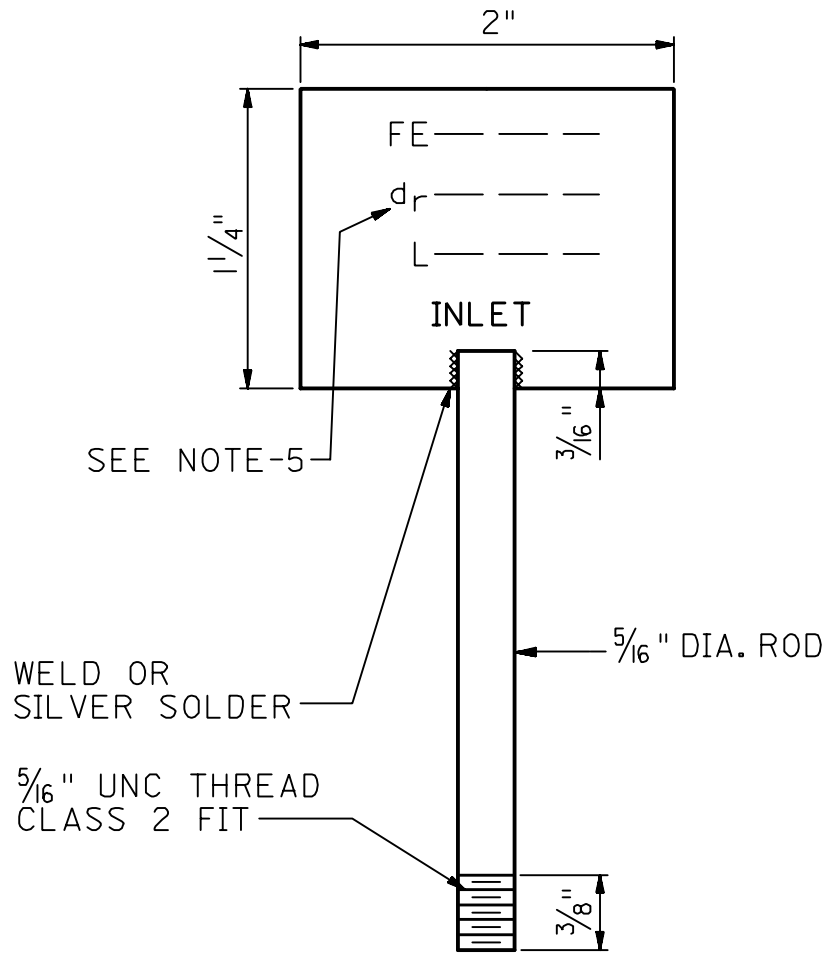
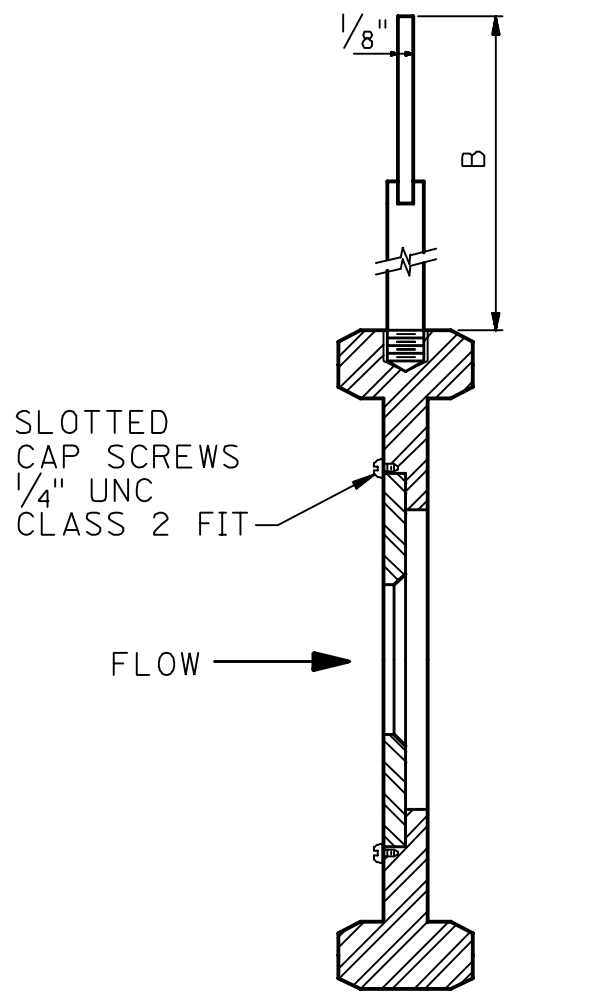


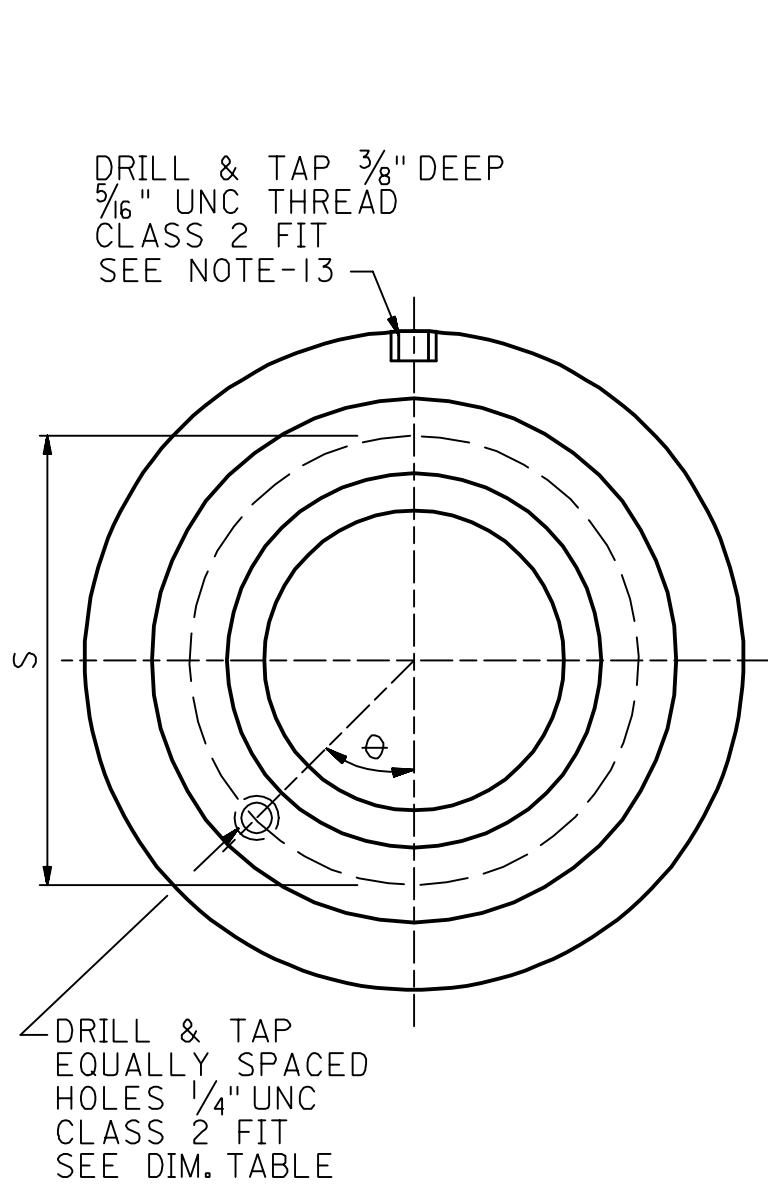
10	202	94	AB-036094	J	990
REV. NO.	SHT. NO.	DRAWING NUMBER	INDEX	PLANT NO.	



DETAIL-2A
IDENTIFICATION HANDLE
MATERIAL: NOTE-1

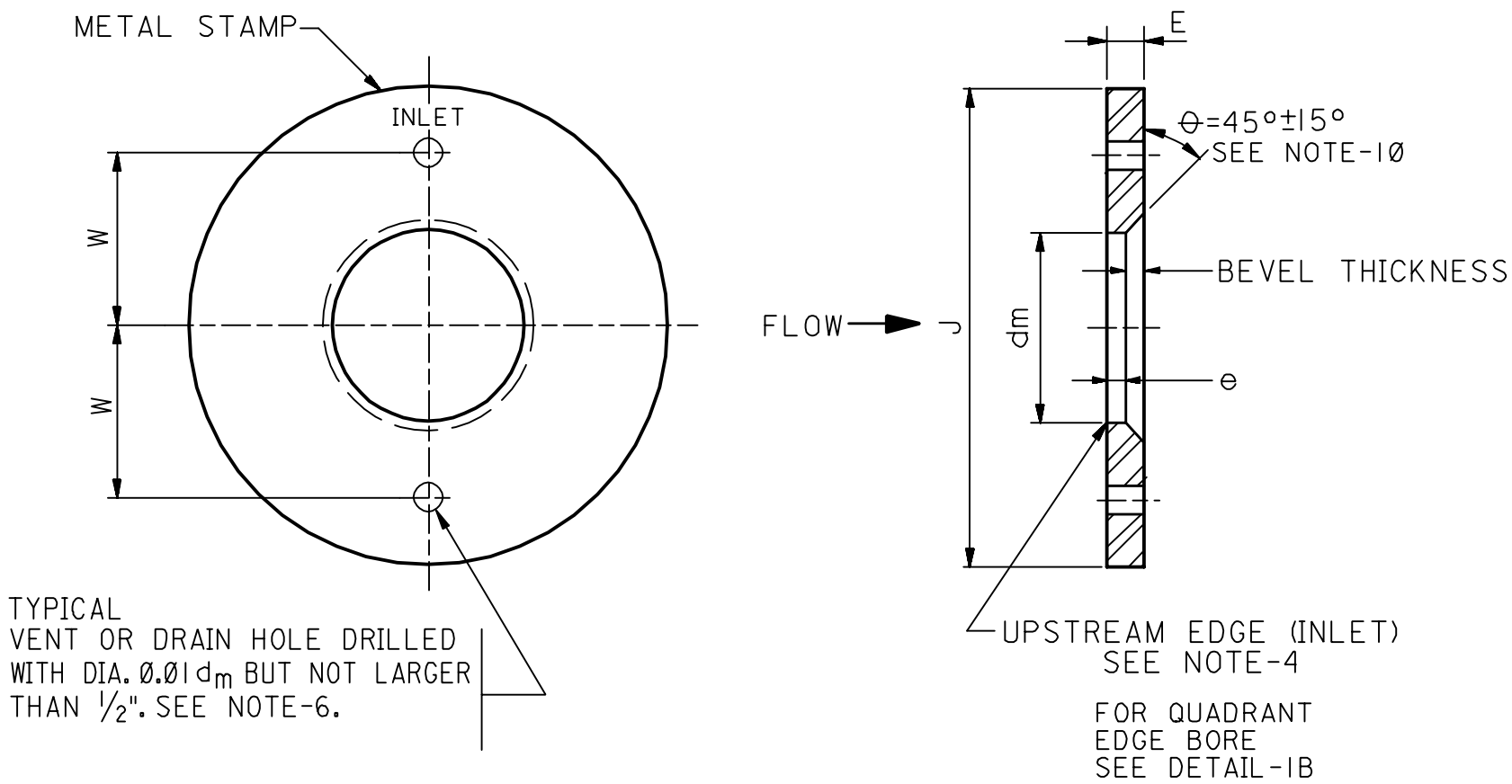
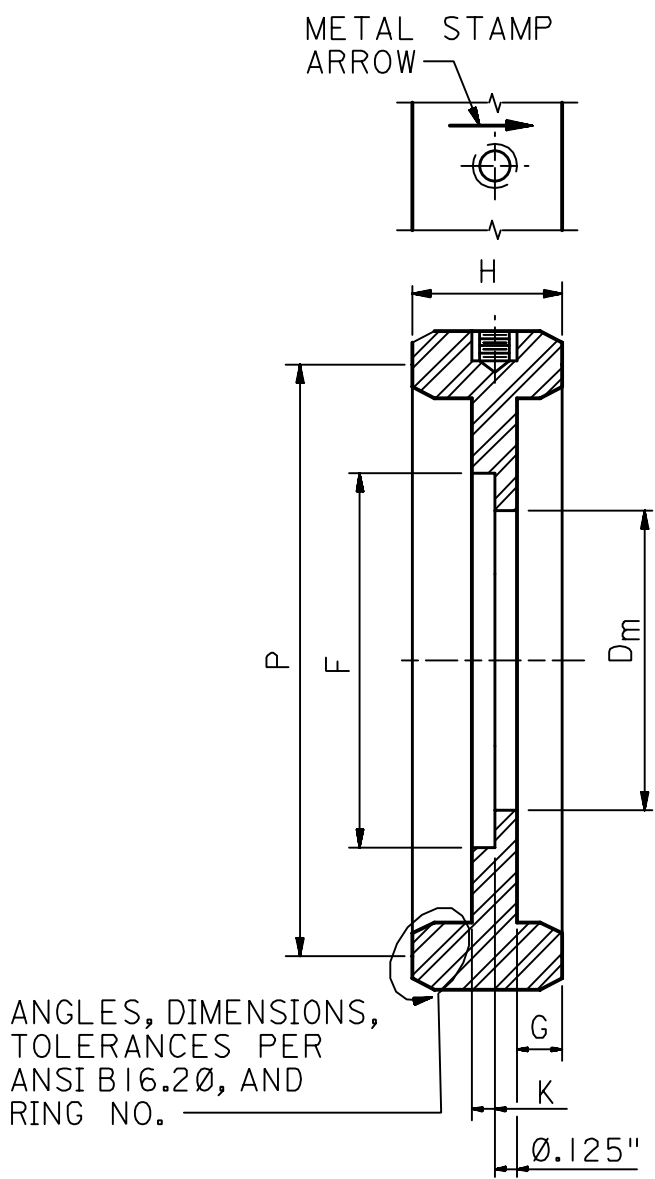


RING JOINT
ORIFICE ASSEMBLY



DETAIL-2B
ORIFICE PLATE HOLDER OCTAGONAL RING
(OVAL RING ACCEPTABLE)

MATERIAL: SEE NOTE-2
SURFACE QUALITY: SEE NOTE-3



DETAIL-2C
RING TYPE ORIFICE PLATE

MATERIAL: SEE NOTE-1
SURFACE QUALITY: SEE NOTE-3

*DIMENSIONS NOT LISTED SHALL CONFORM WITH ANSI B16.20 EXCEPT "D" (NOMINAL PIPE I.D.). FOR "Q" AND "W" SEE NOTE-6

SEE NOTE-15

DIMENSIONS (INCHES)													NOMINAL PIPE SIZE			
RING NO.	ORIFICE PLATE HOLDER						HOLDING SCREWS		ORIFICE PLATE		ROD		ANSI B16.5 FLANGE			
	P	H	F	G	K	S	QTY.	Ø	J	E	B	600 lbs.	900 lbs.	1500 lbs.	3000 lbs.	API 6A
R23	3 1/4	1 1/16	2.444	5/16	0.115	2.756	4	45°	2.437	1/8	4 1/4	2"	-	-	-	-
R24	3 3/4	1 1/16	2.444	5/16	0.115	2.756	4	45°	2.437	1/8	5 1/4	-	-	2"	2"	-
R31	4 7/8	1 1/16	3.447	5/16	0.115	3.759	4	45°	3.437	1/8	5 1/4	3"	3"	-	3"	-
R35	5 3/8	1 1/16	3.447	5/16	0.115	3.759	4	45°	3.437	1/8	5 1/4	-	-	3"	-	-
R37	5 7/8	1 1/16	4.416	5/16	0.115	4.778	4	45°	4.406	1/8	5 1/4	4"	4"	-	4"	-
R39	6 3/8	1 1/16	4.416	5/16	0.115	4.778	4	45°	4.406	1/8	5 1/4	-	-	4"	-	-
R45	8 5/16	1 1/16	6.447	5/16	0.115	6.759	4	45°	6.437	1/8	6 1/4	6"	6"	-	6"	-
R46	8 5/16	1 3/16	6.447	1 1/32	0.115	6.759	4	45°	6.437	1/8	6 1/4	-	-	6"	-	-
R49	10 5/8	1 1/16	8.447	5/16	0.115	8.759	4	45°	8.437	1/8	6 1/4	8"	8"	-	8"	-
R50	10 5/8	1 5/16	8.447	13/32	0.115	8.759	4	45°	8.437	1/8	6 1/4	-	-	8"	-	-
R53	12 3/4	1 1/16	10.697	5/16	0.240	11.009	8	22 1/2°	10.687	1/4	7 1/4	10"	10"	-	10"	-
R54	12 3/4	1 5/16	10.697	13/32	0.240	11.009	8	22 1/2°	10.687	1/4	7 1/4	-	-	10"	-	-
R57	15	1 1/16	12.603	5/16	0.240	12.915	8	22 1/2°	12.593	1/4	7 1/4	12"	12"	-	12"	-
R58	15	1 9/16	12.603	17/32	0.240	12.915	8	22 1/2°	12.593	1/4	8 1/4	-	-	12"	-	-
R61	16 1/2	1 1/16	14.010	5/16	0.240	14.322	8	22 1/2°	14	1/4	7 1/4	14"	-	-	-	-
R62	16 1/2	1 5/16	14.010	13/32	0.240	14.322	8	22 1/2°	14	1/4	7 1/4	-	14"	-	-	-
R63	16 1/2	1 3/4	14.010	5/8	0.240	14.322	8	22 1/2°	14	1/4	8 1/4	-	-	14"	-	-
R65	18 1/2	1 3/16	16.010	5/16	0.365	16.322	8	22 1/2°	16	3/8	7 1/4	16"	-	-	-	-
R66	18 1/2	1 7/16	16.010	13/32	0.365	16.322	8	22 1/2°	16	3/8	7 1/4	-	16"	-	16"	-
R67	18 1/2	2	16.010	1 1/16	0.365	16.322	8	22 1/2°	16	3/8	9 1/4	-	-	16"	-	-
R69	21	1 3/16	18.010	5/16	0.365	18.322	12	15°	18	3/8	7 1/4	18"	-	-	-	-
R70	21	1 9/16	18.010	15/32	0.365	18.322	12	15°	18	3/8	7 1/4	-	18"	-	18"	-
R71	21	2	18.010	1 1/16	0.365	18.322	12	15°	18	3/8	9 1/4	-	-	18"	-	-
R73	23	1 1/4	20.010	1 1/32	0.365	20.322	12	15°	20	3/8	7 1/4	20"	-	-	-	-
R74	23	1 9/16	20.010	15/32	0.365	20.322	12	15°	20	3/8	7 1/4	-	20"	-	20"	-
R75	23	2 1/8	20.010	3/4	0.365	20.322	12	15°	20	3/8	10 1/4	-	-	20"	-	-
R77	27 1/4	1 7/16	24.010	13/32	0.365	24.322	12	15°	24	3/8	7 1/4	24"	-	-	-	-
R78	27 1/4	1 7/8	24.010	5/8	0.365	24.322	12	15°	24	3/8	9 1/4	-	24"	-	-	-
R79	27 1/4	2 5/16	24.010	13/16	0.365	24.322	12	15°	24	3/8	11 1/4	-	-	24"	-	-

TOLERANCES (INCHES)

P	RING PITCH DIAMETER	± 0.007	H	RING HEIGHT	± 1/64
F	ORIFICE PLATE RECESS DIAMETER	+ 0.005 - 0.000	G	RING OUTLET FACE DEPTH	± 0.005
K	RECESS DEPTH	+ 0.000 - 0.010	Dm	NOMINAL PIPE INSIDE DIAMETER AT Tm	≤ 6" +0.000 -0.010 8"-10" +0.000 -0.020 ≥ 12" +0.000 -0.030
Ø	HOLDING SCREW ANGLE FROM CTRLN.	± 10°	J	ORIFICE PLATE OUTSIDE DIAMETER	+0.000 -0.010
E	ORIFICE PLATE THICKNESS	SEE TOLERANCES DETAIL-1	dm	ORIFICE PLATE BORE	SEE TOLERANCES DETAIL-1
W	DRAIN HOLE LOCATION	± 1/64	B	IDENTIFICATION HANDLE ROD LENGTH	± 1/2
S	HOLDING SCREW CIRCLE DIAMETER	± 0.016			
S	CONCENTRICITY WITH RESPECT TO F AND P PER DETAIL-1, SHEET-1				
	ORIFICE PLATE AND RING INLET FACE FLATNESS: PER API 14.3.2 TABLE 2-1				
	ORIFICE BORE CONCENTRICITY: WITHIN 0.015" WITH RESPECT TO J				

NOTES:

1. FOR NOTES SEE DWG. AB-036094 SHT. 001.

DWG. RESPONSIBILITY :					
INSTRUMENTS STANDARD COMMITTEE					
01	NOV96	RCR	CHGD. MANDATORY DRAWING NOTE TO DRAWING RESPONSIBILITY NOTE.		
REV. NO.	DATE	BY	JO/EWD	DESCRIPTION	CHKD. CERT. APPD.
SAUDI ARABIAN OIL COMPANY					
DRAWN BY: ESSD (CAC) CHECKED BY: SCALE: NONE					
DATE STARTED: 04-06-94 DATE COMPLETED: 04-06-94					
OPR'G. 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:	
STANDARD ORIFICE PLATES					
STD. DWG.					
PLANT NO.	INDEX	DRAWING NUMBER		SHT. NO.	REV. NO.
990	J	AB-036094		002	01