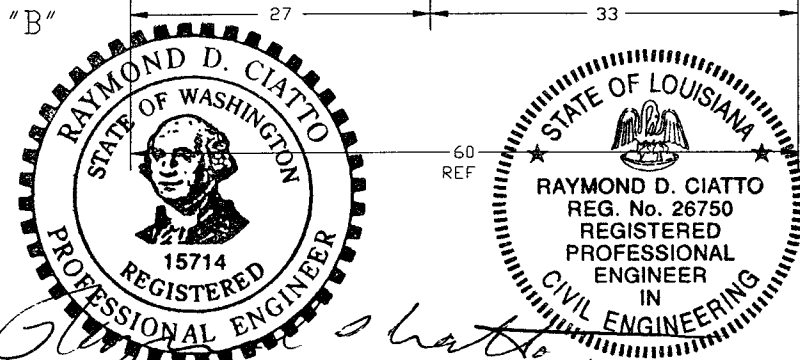


ITEM	PART NUMBER	SUFFIX	QTY	UM	DESCRIPTION
1	V0494097		1	EA	FLANGE, FLAT FACED, 60 1/2" ID X 68 1/4" OD
2	V0494020		1	EA	FLANGE, GROOVED, 72 1/4" ID X 80" OD
3	V0494055		1	EA	FLANGE, REDUCING, 61 06" ID X 73" OD X 1" THK
4	V0494A7BP4		2	EA	SHELL, 304/304L SST, 1/4" THK
5	V0494A7BP5		1	EA	SHELL, 304/304L SST, 1/4" THK
6			1	2 FT	BAR, CS A36, 1 3/8" X 6"
7	V049M782		40	EA	NUT, HEX, 5/16-18, SILICON BRZ
8	V049M785		80	EA	WASHER, FLAT, 5/16, 18-8 SST
9			1	13 FT	TUBING, 4" X 2" X 3/16" A500 GR B
10	V049M813		1	2 EA	RING, ANGLE, 2 1/2" X 2 1/2" X 1/4"-304 SST
11	V049M814		1	1 EA	RING, ANGLE, 4" X 4" X 1/4"-304 SST
12	V049M308		3	1 EA	HALF NIPPLE, SST, 304L, CONFLAT 16 1/2" OD
13	V049M310		3	1 EA	HALF NIPPLE, SST, 304L, CONFLAT, 12" OD
14	V049M753		3	6 EA	BOLT, STL A325, 5/8-11 UNC X 3 1/2 LG
15	V049M755		3	6 EA	NUT, STL A325, 5/8-11 UNC
16			3	4 EA	ANCHOR 1" DIA, HILTI HVA, 8-1/2" EMBEDMENT
17	V049M920		1	1 EA	RING, 15" ID X 20" OD X 1/2" THK-304 SST
18	V049M921		1	1 EA	RING, 11" ID X 16" OD X 1/2" THK-304 SST
19	V049M852		3	3 FT	BAR, 304 SST, 4" X 3/8"
20	202678		3	36 EA	BOLT, SA 193 B7, 7/8-9 UNC X 4" LG
21	202679		3	36 EA	NUT, SA 194 2H, 7/8-9 UNC
22	202581		3	72 EA	WASHER, STL, 1 3/4" OD X 15/16 ID X 1/4" THK
23	V049M314		3	1 EA	HALF NIPPLE, SST, 304L, CONFLAT, 4 1/2" OD
24	202557		3	1 EA	BLANK, CONFLAT, SST 304L, 4 1/2" OD
25	202549		3	1 EA	BLANK, CONFLAT, SST 304L, 12" OD
26	202666		3	1 EA	BLANK, CONFLAT, SST 304L, 16 1/2" OD
27	202558		3	1 EA	GASKET, CONFLAT, COP DFHC, 4 1/2" OD
28	202552		3	1 EA	GASKET, CONFLAT, COP DFHC, 12" OD
29	202670		3	1 EA	GASKET, CONFLAT, COP DFHC, 16 1/2" OD
30	V049M776		8	EA	BOLT, HEX HD, 5/16-18 X 2 1/4 LG, 18-8 SST
31	V049M779		32	EA	BOLT, HEX HD, 5/16-18 X 3 LG, 18-8 SST
32	V049M780		36	EA	BOLT, HEX HD, 3/8-16 X 3 LG, 18-8 SST
33	V049M783		36	EA	NUT, HEX, 3/8-16, SILICON BRZ
34	V049M020		1	EA	O-RING, VITRON (PER SPEC V049-2-045)
35	V049M021		1	EA	O-RING, VITRON (PER SPEC V049-2-045)
36	V049M786		72	EA	WASHER, FLAT, 3/8, 18-8 SST
37	V0494A7BP37		2	EA	SUPPORT ASSEMBLY
38	V049M773		3	6 EA	WASHER, LOCK, 5/8" A325
39	V0494061		1	EA	3/4" DD ELBOW X 2 3/4" DD CF

- NOTES:
- EACH SHELL IS TO BE MARKED WITH THE PSI PART NO. AS SHOWN WITH THE SHELL ITEM NO.
 - PLATES PRIOR TO ROLLING MUST HAVE DIAGONAL CORNER TO CORNER DIMENSIONS WITHIN 1/16" OF EACH OTHER.
 - THE CENTER LINES OF ALL SHELLS AND END FLANGES, ARE TO LIE ON THE COMMON CENTER LINE WITHIN +/- 1/16
 - LEAK TEST & METHOD PER PSI SPEC V049-2-014
 - CERTIFIED MANUFACTURER'S MATERIAL TEST REPORTS REQUIRED.
 - BOLT HOLES OF ALL FLANGES TO STRADDLE VERTICAL CENTERLINE +/- .015
 - CLEAN PER SPEC V049-2-015
 - DO NOT USE CARBON STEEL BRUSHES OR BRUSHES CONTAMINATED WITH CARBON STEEL ON STAINLESS OR ALUMINUM MATERIAL.
 - MACHINING & ROLLING PER SPEC V049-2-136.
 - SPOOL FABRICATION TO BE IN ACCORDANCE WITH SPEC V049-2-097
 - FOR FLANGE DETAILS SEE DWGS V049-4-020, 097, & 055
 - FLANGE INCLUDES AN ANNULAR CHANNEL BETWEEN O-RINGS, FOR A SINGLE PUMPOUT PORT, SEE DWG V049-4-061.
 - EACH FINISHED SHELL ASSY. SET IS TO HAVE EACH OF THE PIECES MARKED WITH THE SAME SET NO. AND SHIPPED TOGETHER. THE NUMBER IS TO BE MADE FROM THE DRAWING NO. PLUS SEQUENTIAL LETTER. V0494A7B-A, B ETC.



APPROX. WEIGHT: 4134#

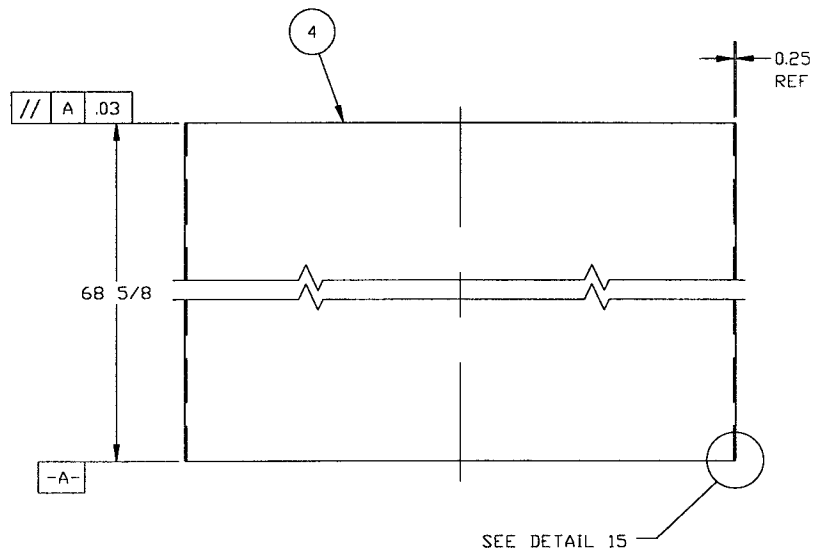
0970380-01-V

SYMBOL	CHARACTERISTIC	TOLERANCES UNLESS OTHERWISE SPECIFIED	REV	DESCRIPTION	DATE	DESN
□	FLATNESS	DIMENSIONS ARE IN INCHES	1	DESIGN UPDATE/ISSUED FOR FABRICATION	11/22/96	0180
○	CYLINDRICITY	FRACTIONAL, # J	0	ISSUED FOR FABRICATION (SHELL ONLY)	10/1/96	0283
∥	PARALLELISM	ANGULAR, # J				
⊥	PERPENDICULARITY	TWO PLACE DECIMAL, # 03				
∠	ANGULARITY	THREE PLACE DECIMAL, # 015				
⊕	TRUE POSITION	FINISHED SURFACE RMS				
⊙	CONCENTRICITY	BREAK CORNERS IN: DUT REMOVE ALL BURRS				

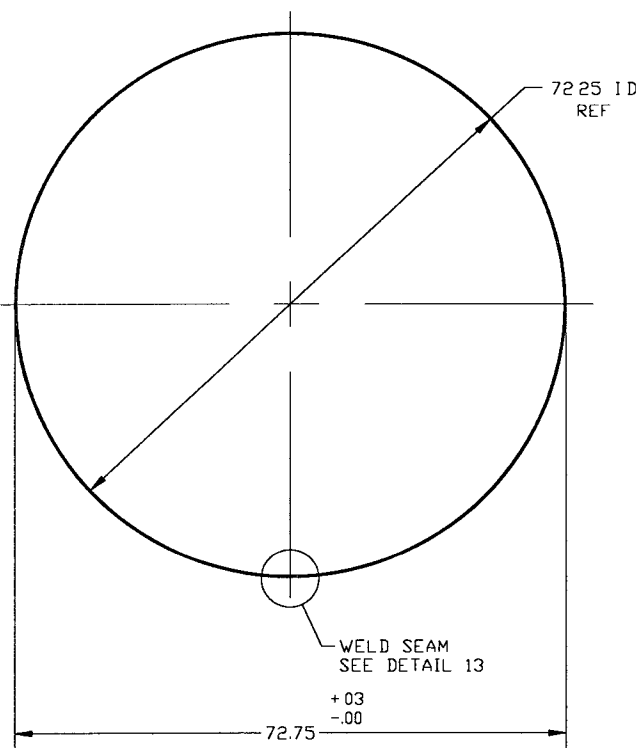
DWG NO	DESCRIPTION	DWG NO	DESCRIPTION

SCALE	SIZE	DWG NO	REV
1-1/2" = 1'-0"	D	V049-4-A7B	1

NOV 23 1996 11:14:16Z



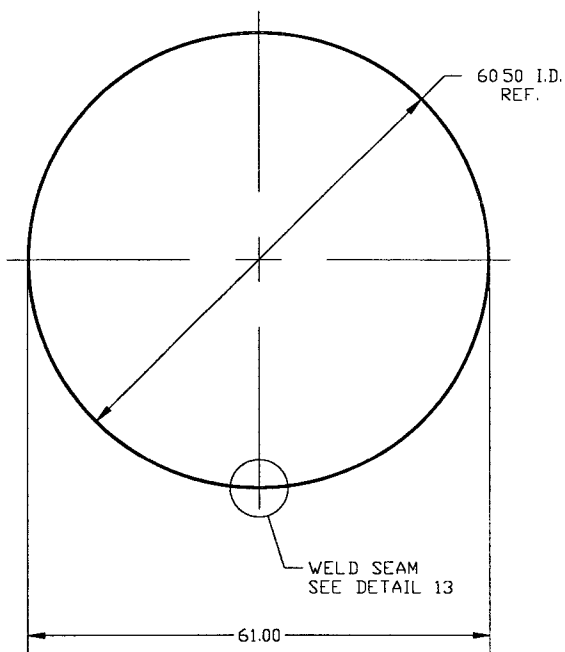
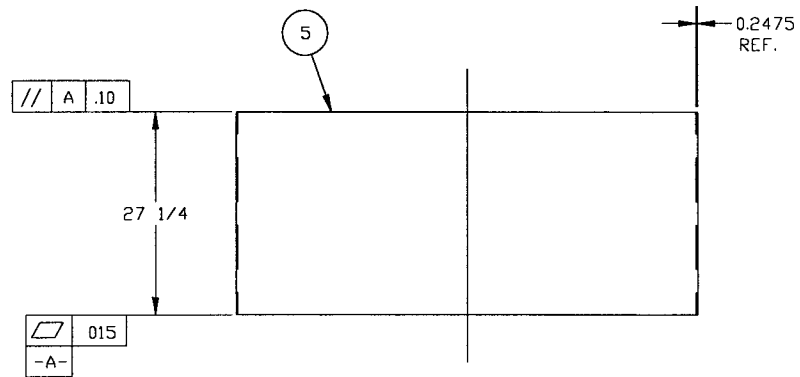
SEE DETAIL 15



DETAIL "3"

QTY: 2

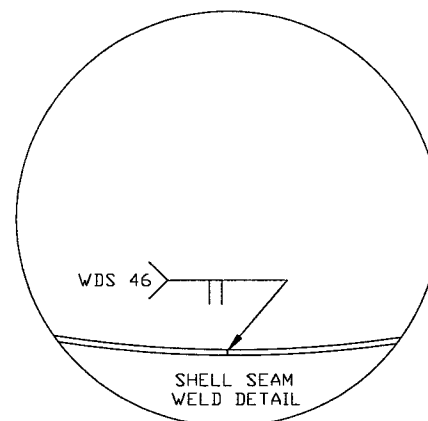
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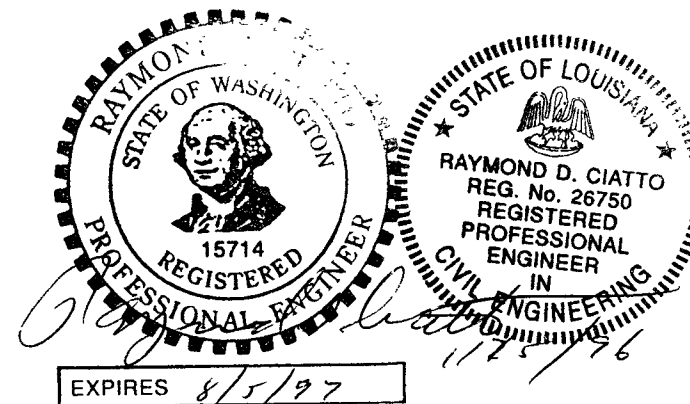
DETAIL "4"

QTY: 1

MAKE FROM V049M174-1

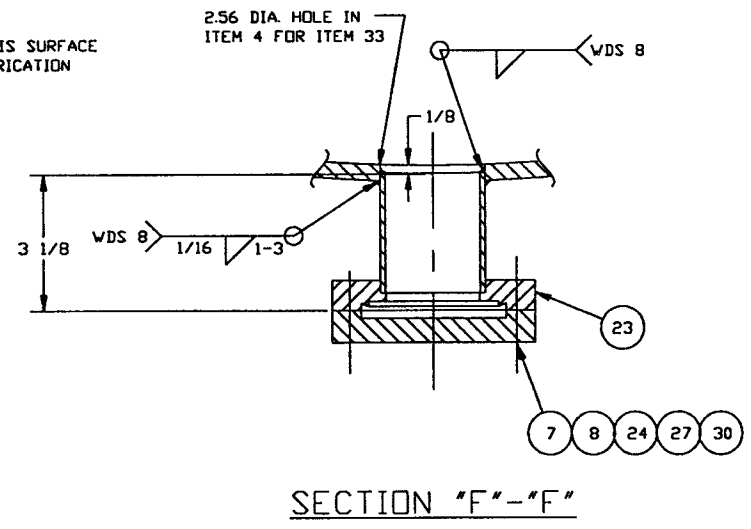
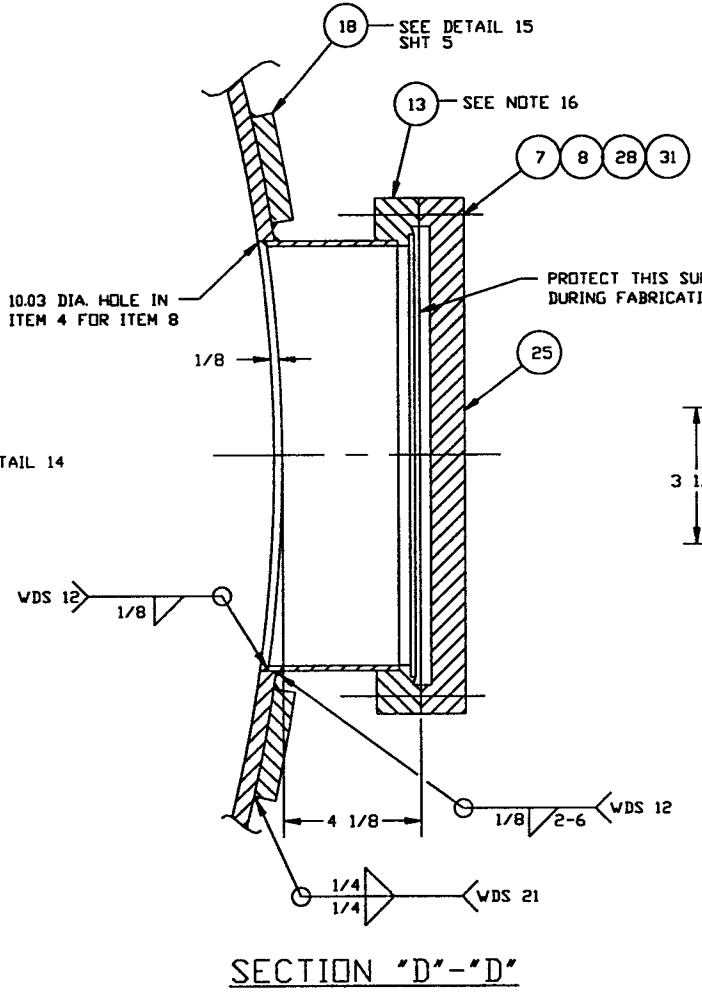
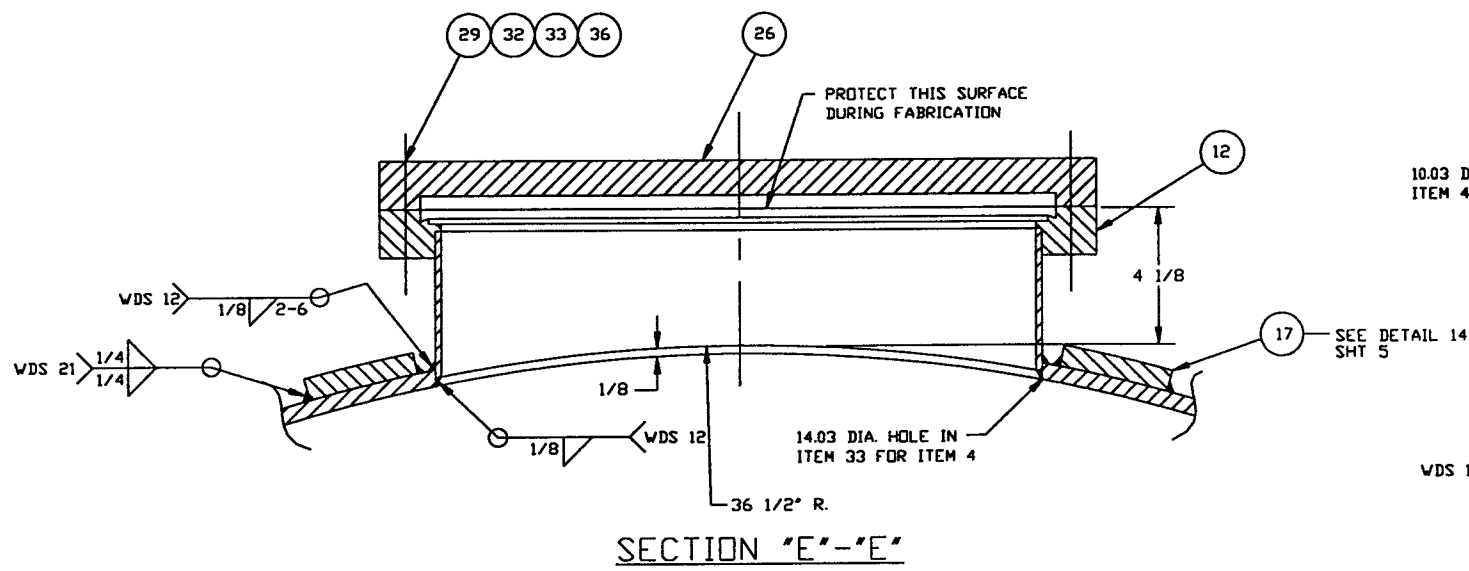
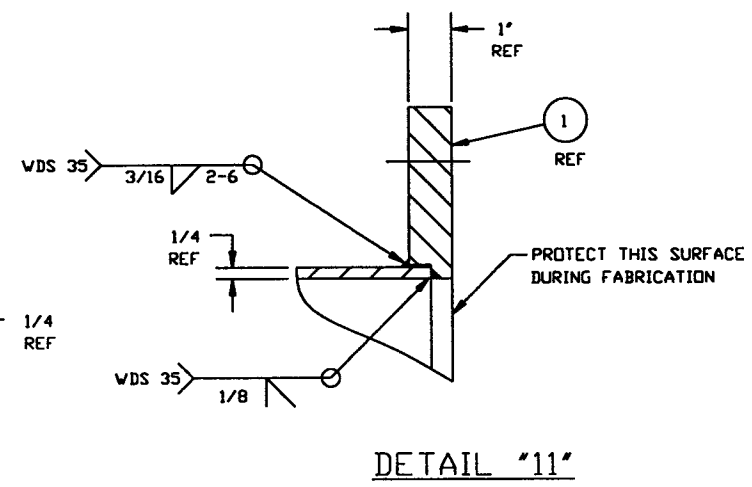
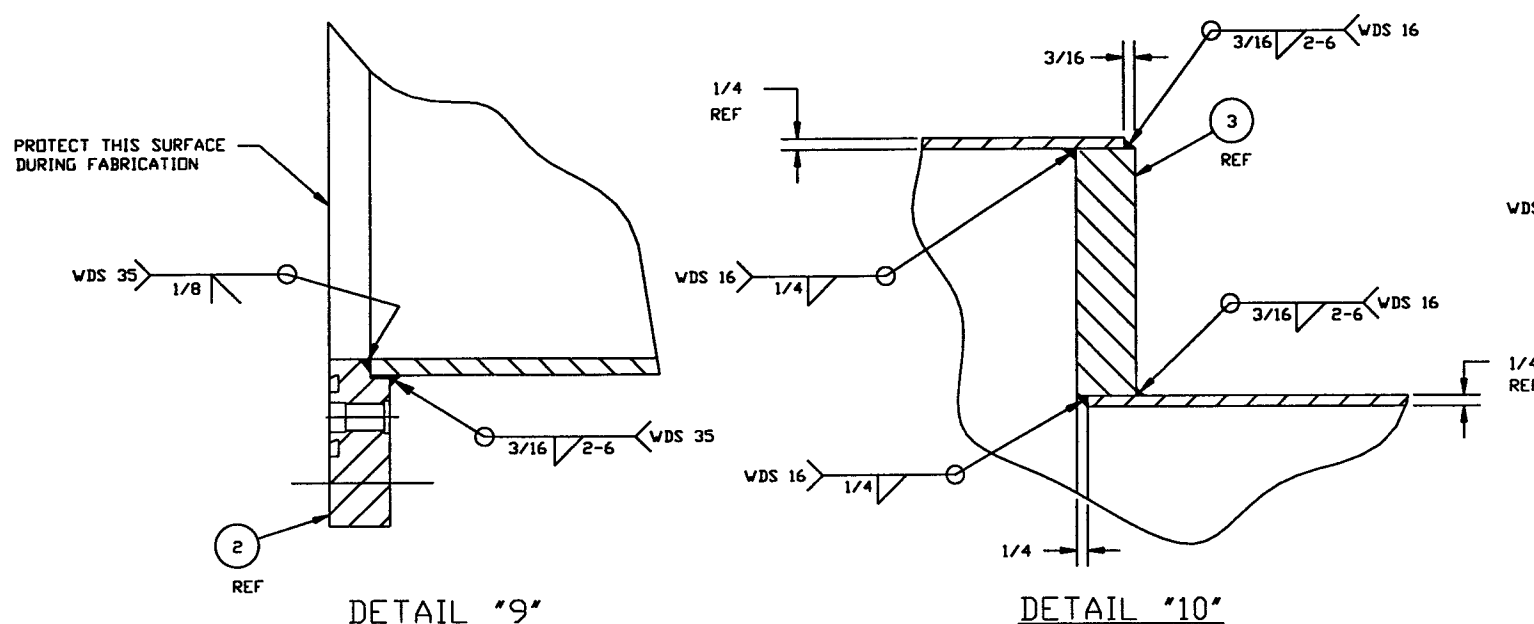


DETAIL "13"



PROCESS SYSTEMS INTERNATIONAL INC. 20 WALKUP DR WESTBOROUGH, MASSACHUSETTS 01581 USA			
ADAPTER A-7B 60.50"ID x 72.25"ID LIGD VACUUM EQUIPMENT			
CAD FILE V049A7B/4A7S4B	SIZE D	DWG NO. V049-4-A7B	REV 1
SCALE AS NOTED	SHEET 2 OF 5		

NOV 14, 1996 - 15:41:17



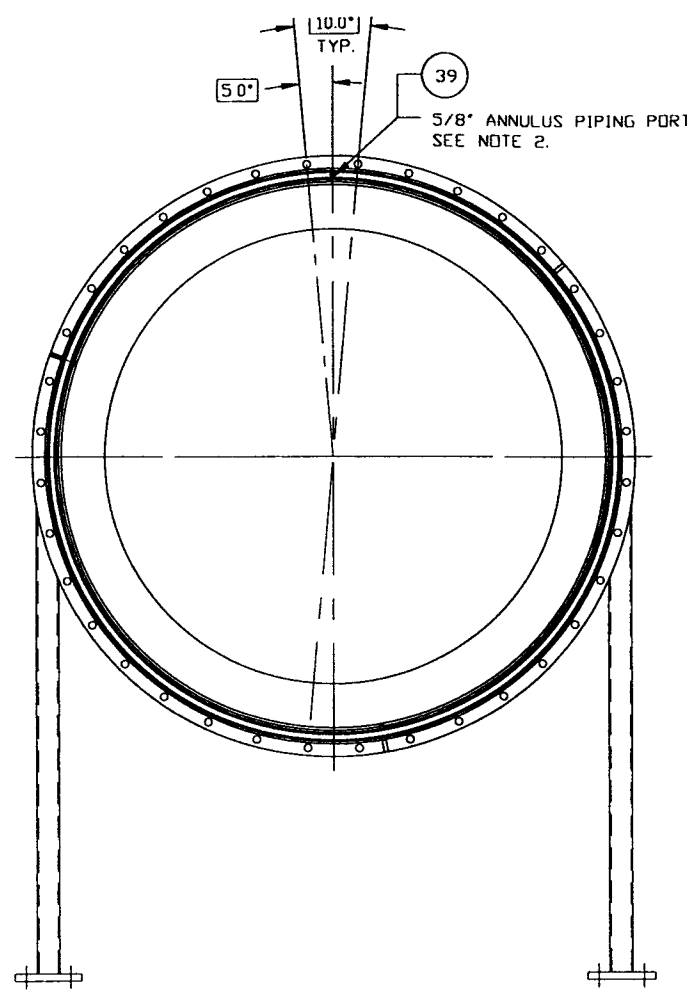
RAYMOND D. CIATTO
STATE OF WASHINGTON
REGISTERED ENGINEER
15714

STATE OF LOUISIANA
RAYMOND D. CIATTO
REG. No. 26750
REGISTERED PROFESSIONAL ENGINEER
IN CIVIL ENGINEERING

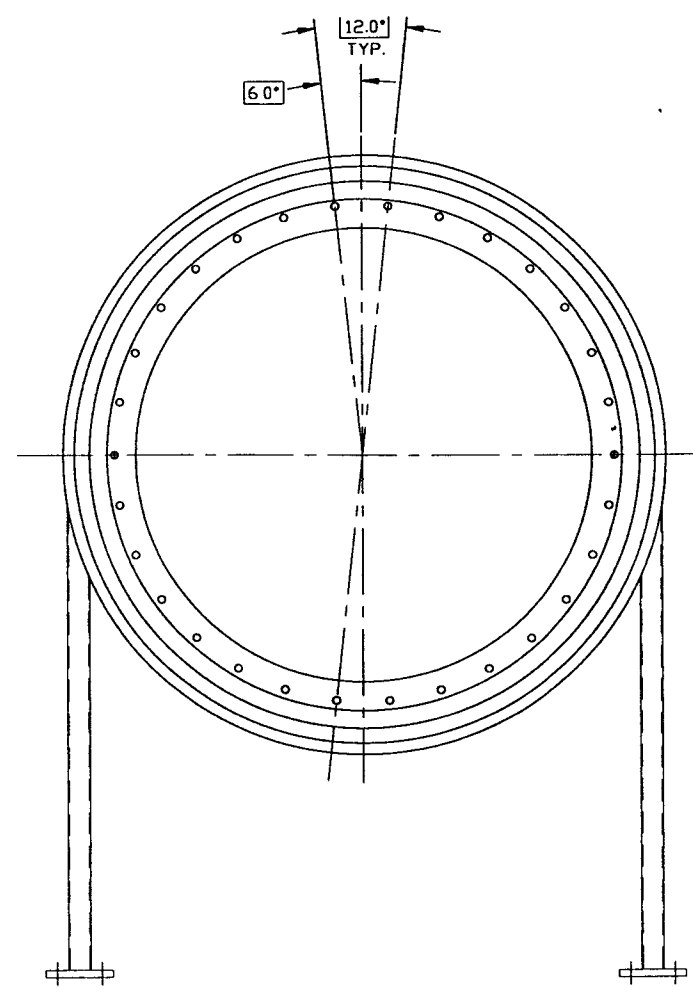
EXPIRES 8/5/97

SEE SHEET 1 FOR REVISIONS

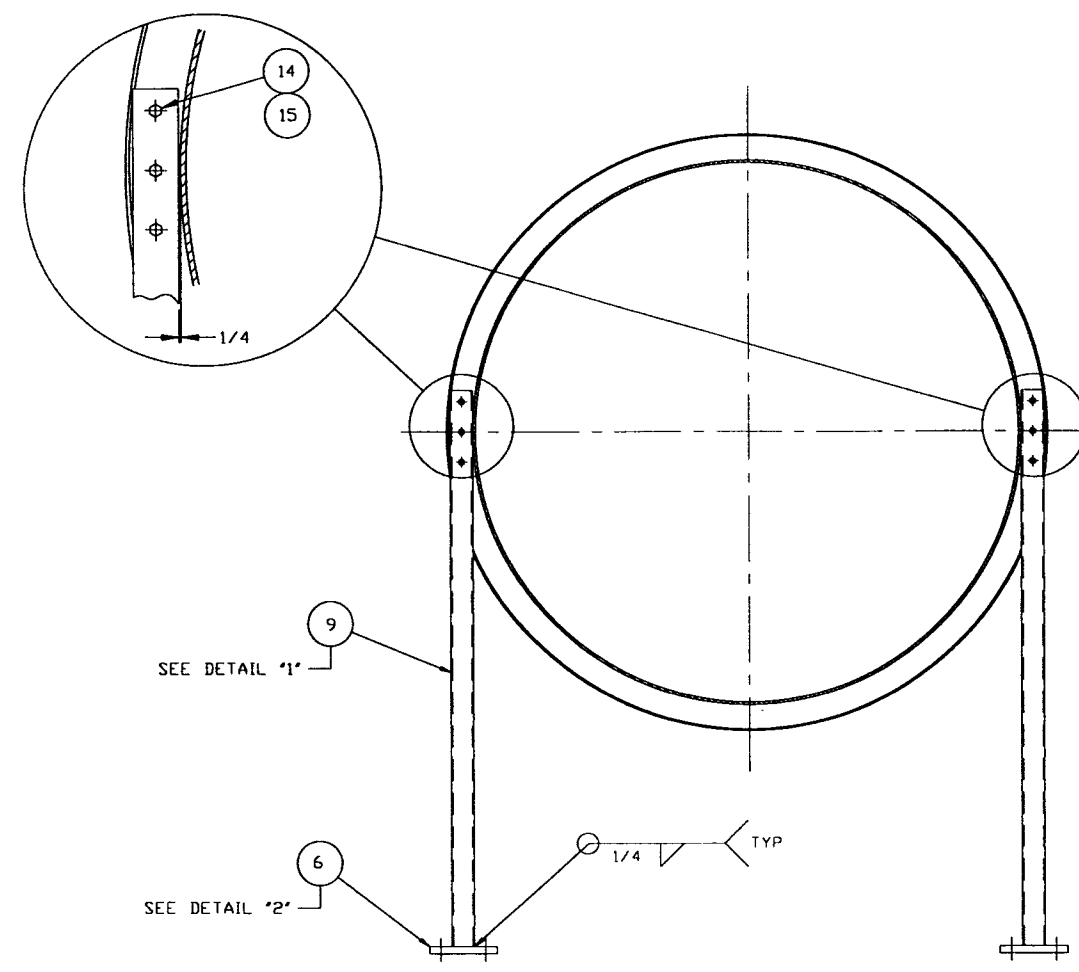
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ADAPTER A-7B 72 1/4" X 60 1/2" LIGO VACUUM EQUIPMENT			
CAD FILE V049A7B/AA7B53	SIZE D	DWG. NO. V049-4-A7B	REV 1
SCALE AS NOTED	SHEET 3	OF 5	



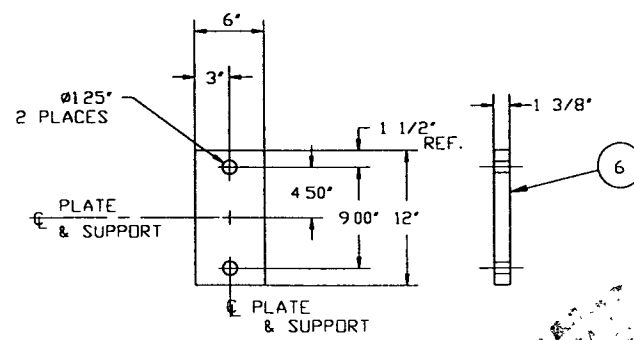
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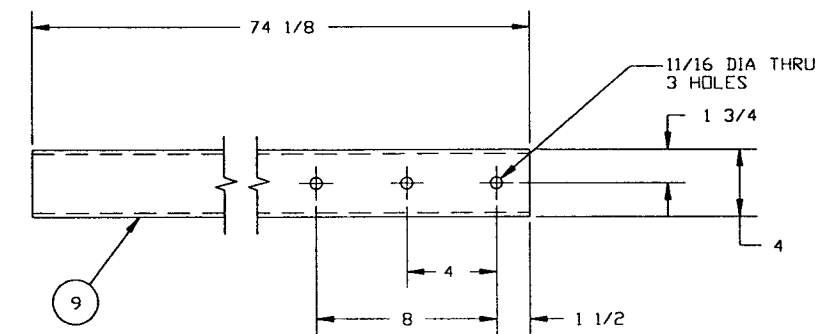
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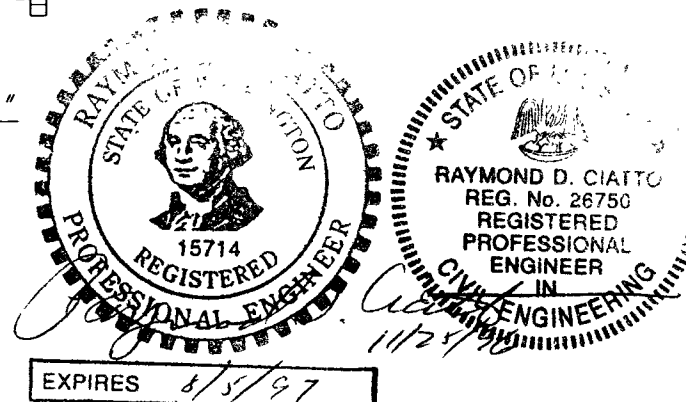
SECTION "C"-"C"



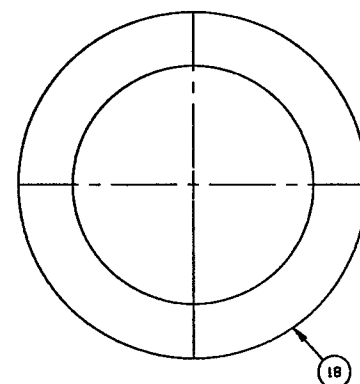
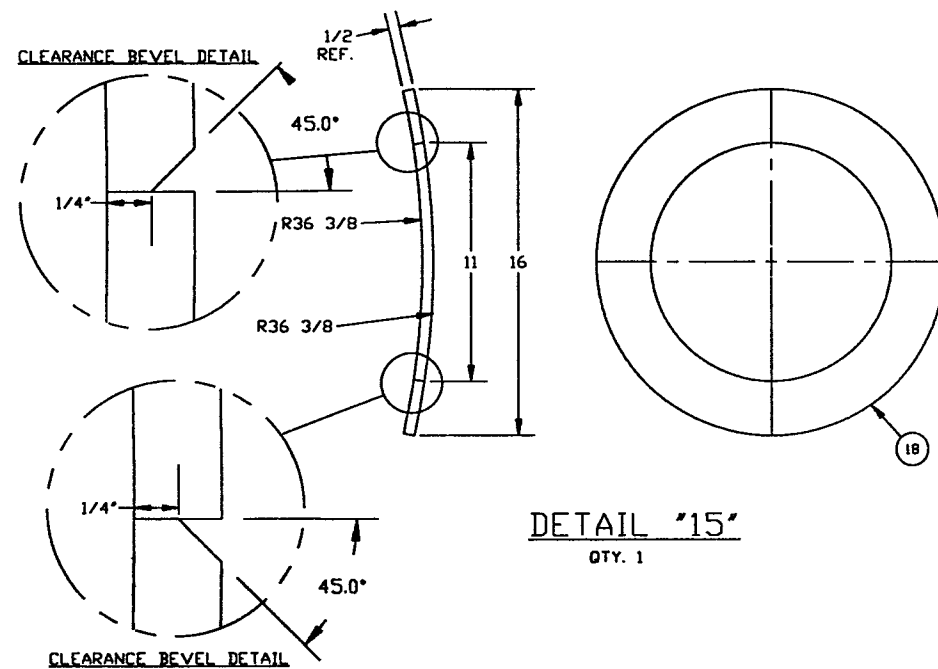
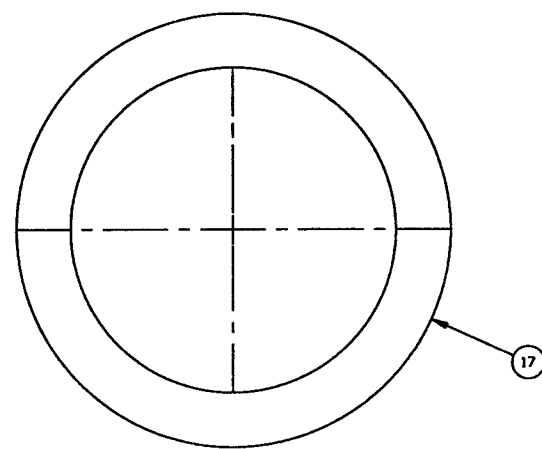
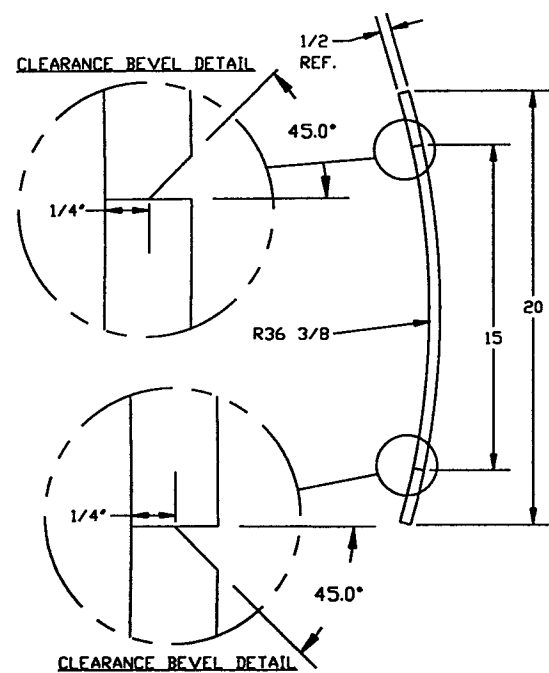
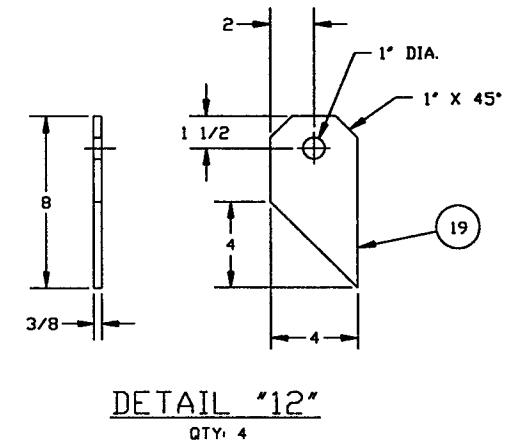
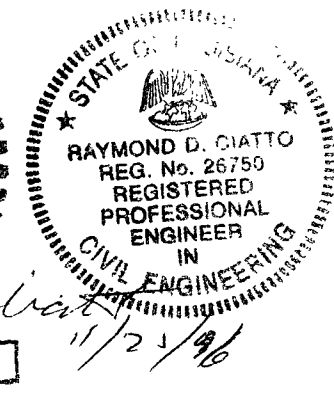
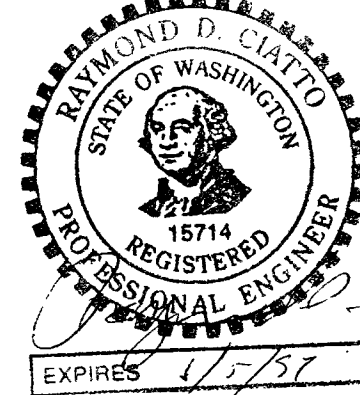
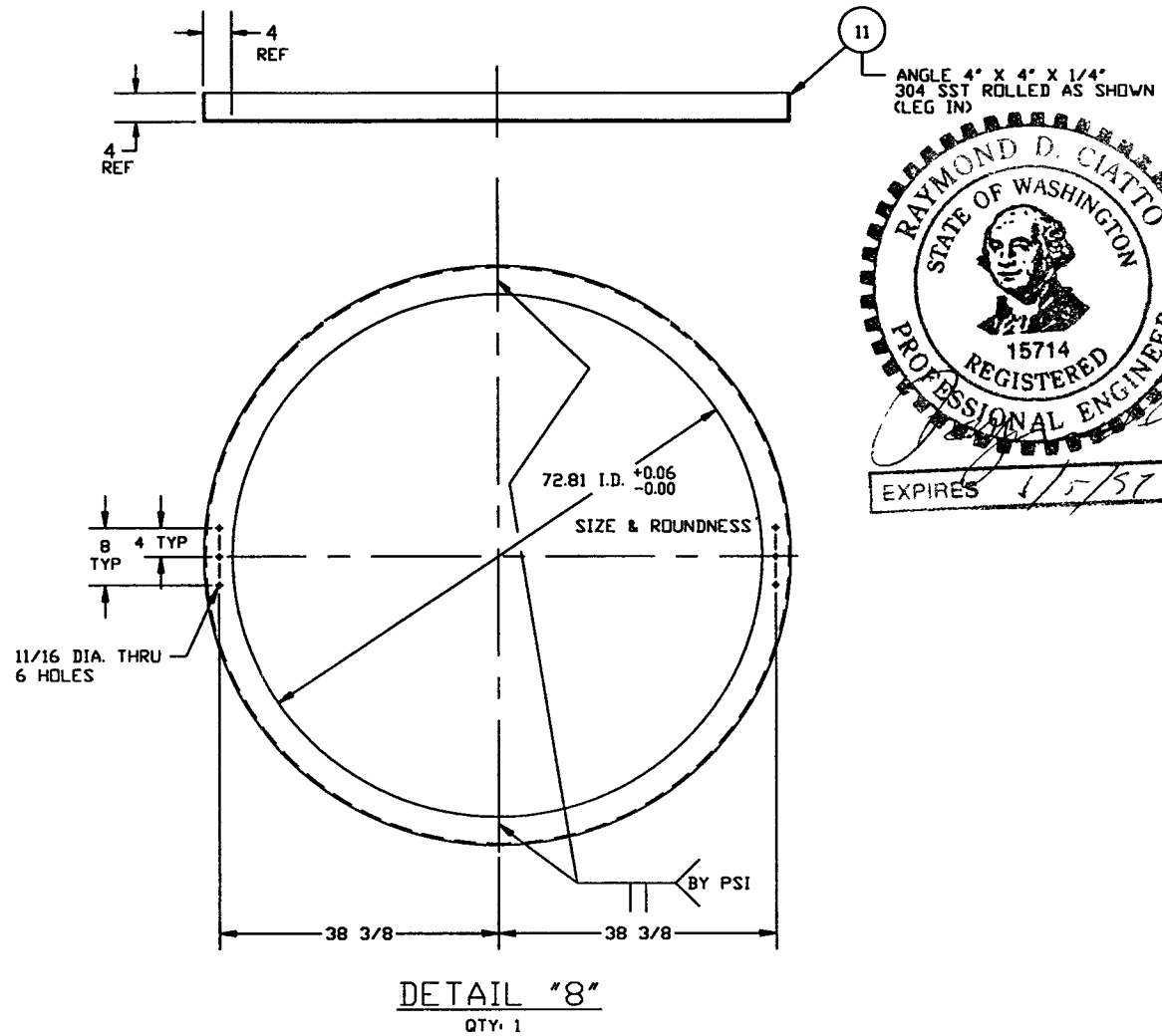
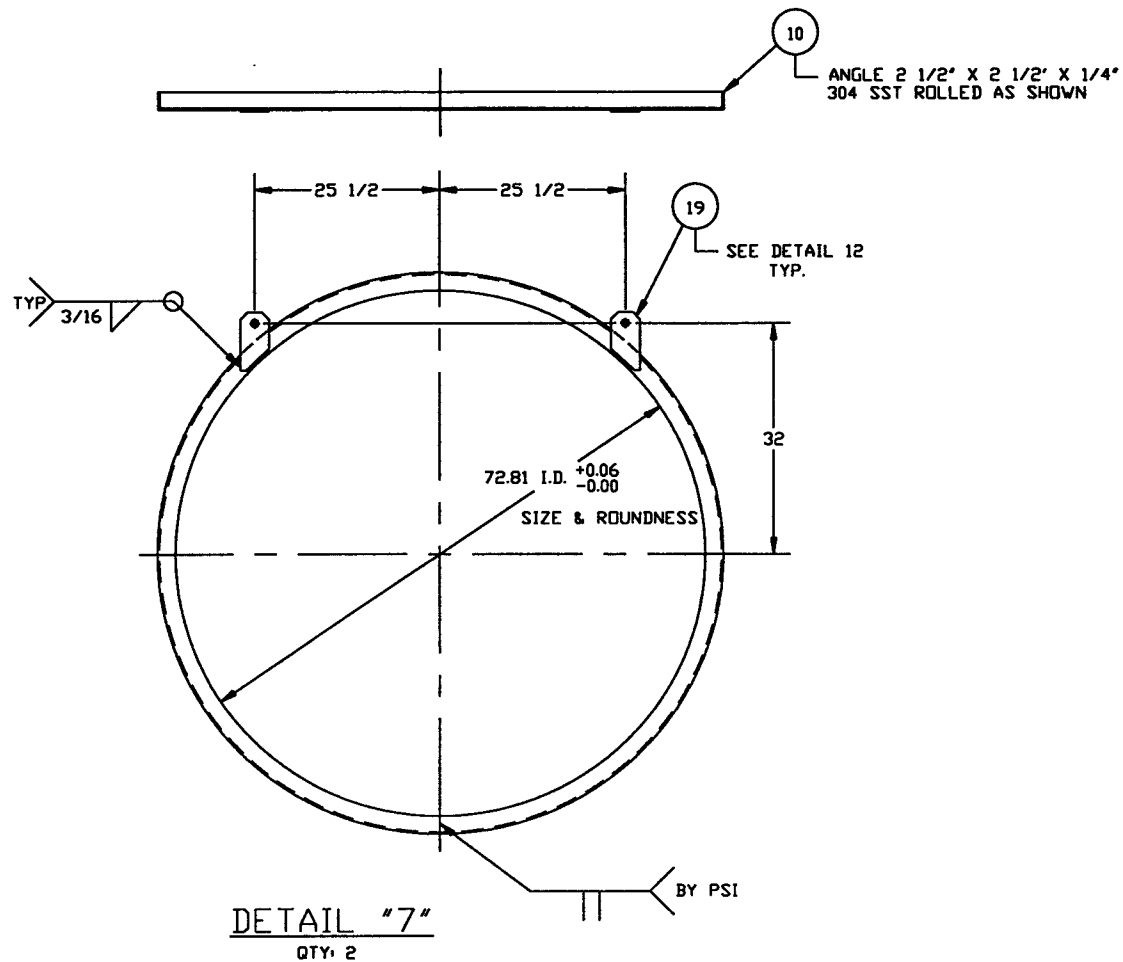
DETAIL "2"
QTY: 2



DETAIL "1"
SCALE: 1 1/2" = 10"
QTY: 2



PROCESS SYSTEMS INTERNATIONAL INC. 20 WALKUP DR. WESTBOROUGH, MASSACHUSETTS 01581 USA			
ADAPTER A-7B 60.50"ID x 72.25"ID LIGD VACUUM EQUIPMENT			
CAD FILE V049A7B/4A7BS2	SIZE D	DWG. NO. V049-4-A7B	REV 1
SCALE AS NOTED	SHEET 4 OF 5		



PROCESS SYSTEMS INTERNATIONAL INC. 20 WALKUP DR. WESTBOROUGH, MASSACHUSETTS 01581 USA			
ADAPTER A-7B 60.50"ID x 72.25"ID LIGD VACUUM EQUIPMENT			
CAD FILE V0494A7B/4A7B55	SIZE D	ENG. NO. V049-4-A7B	REV. 1
SCALE AS NOTED	SHEET 3 OF 5		

8 7 6 5 4 3 2 1