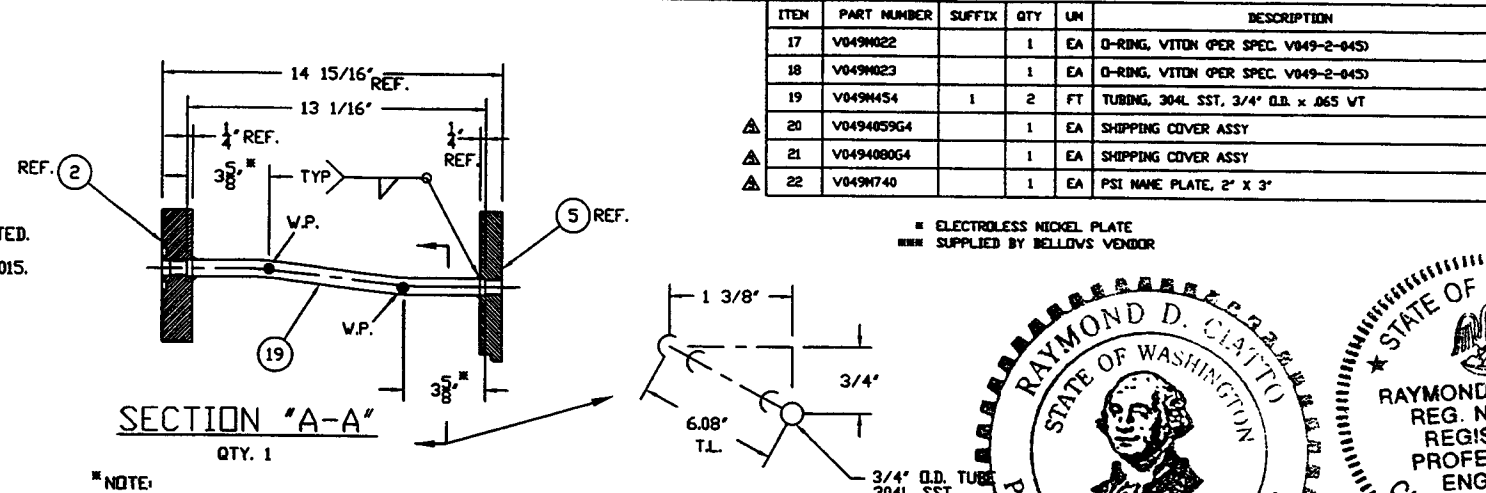


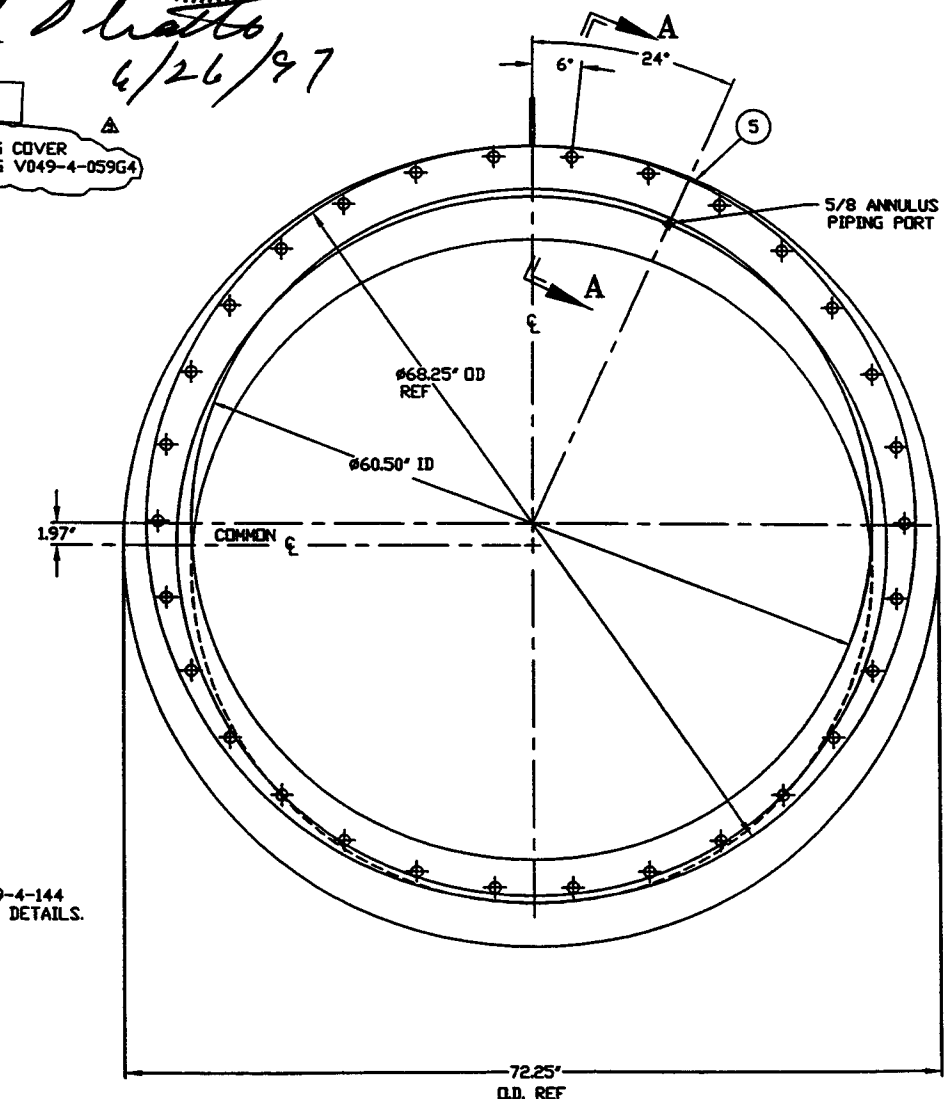
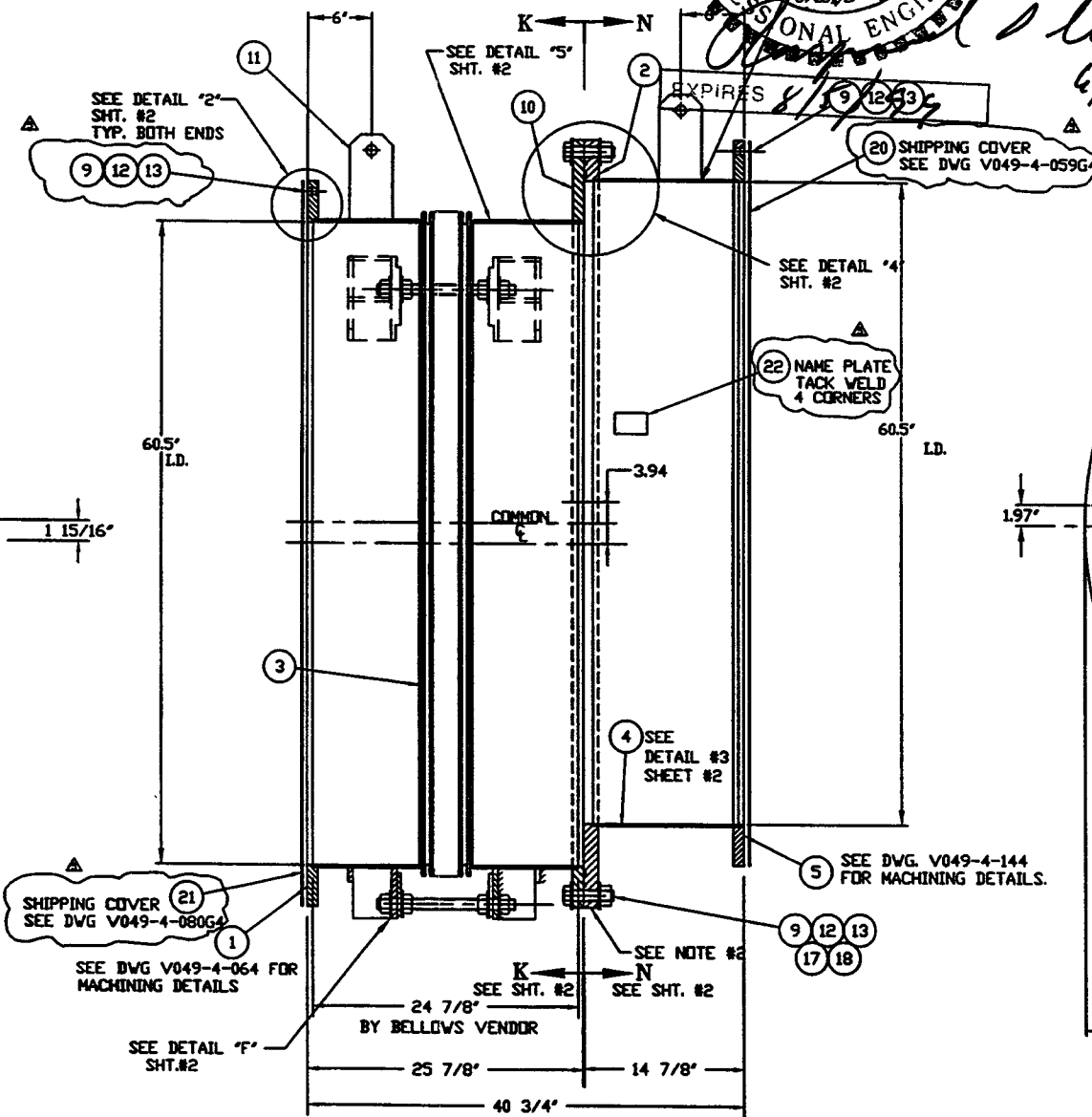
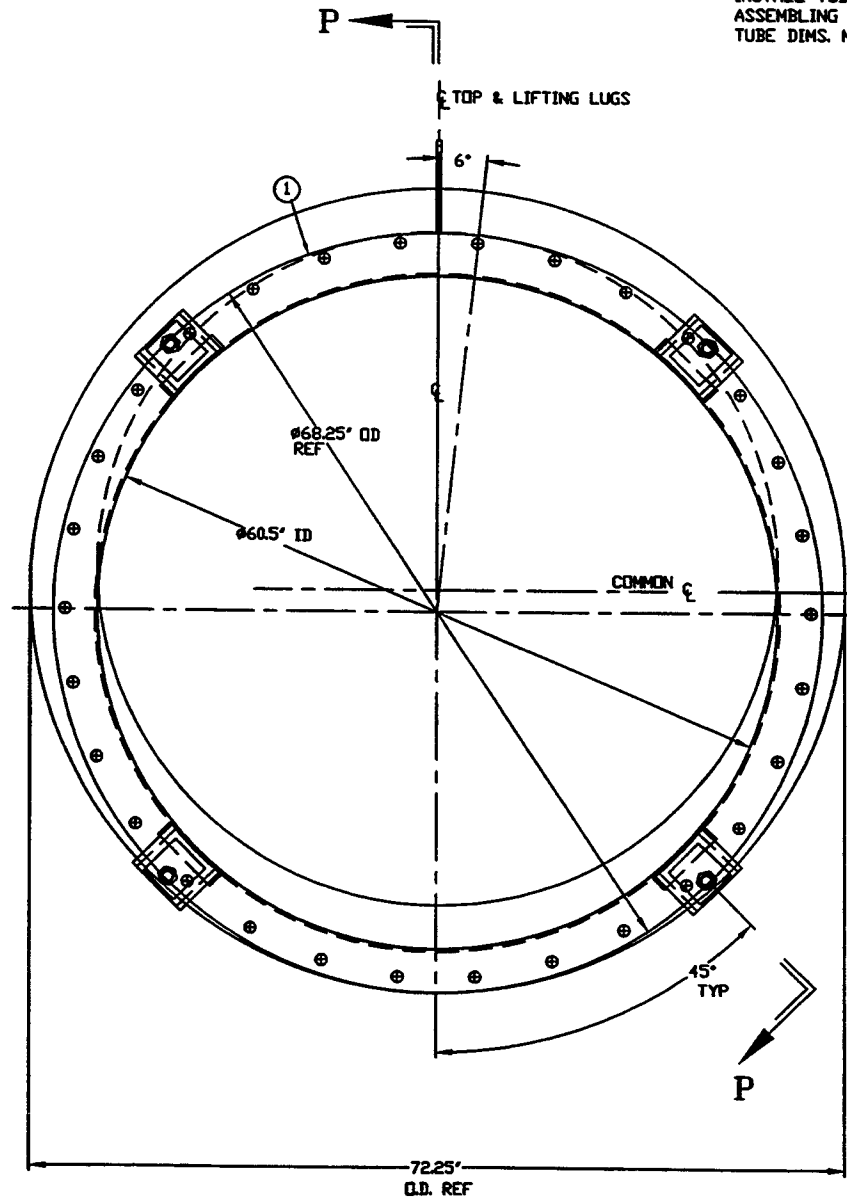
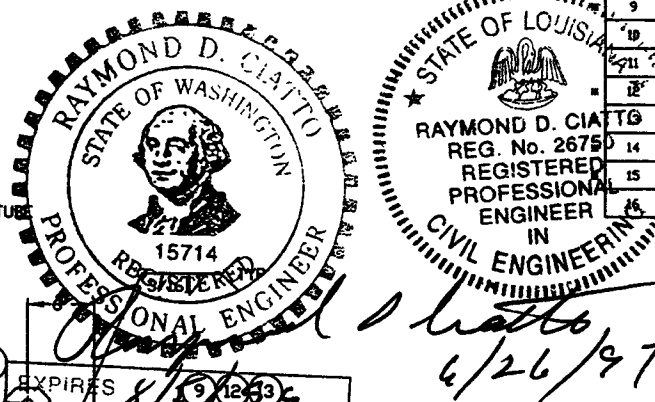
**NOTES:**

12. WDS NO'S. REFER TO WELD DATA SPEC. V049-2-084.
11. PLATES PRIOR TO ROLLING MUST HAVE DIAGONAL CORNER TO CORNER DIMENSIONS WITHIN 1/16" OF EACH OTHER.
10. MACHINING & ROLLING PER SPEC V049-2-136.
9. TIGHTEN TIE-ROD NUTS WITH BELLOWS IN 'FREE' POSITION TO 100 FT-LBS PRIOR TO LEAK TEST.
8. LEAK TEST & METHOD PER PSI SPEC: V049-2-014
7. CERTIFIED MANUFACTURER'S MATERIAL TEST REPORTS REQUIRED, AS NOTED.
6. BOLT HOLES OF ALL FLANGES TO STRADDLE VERTICAL CENTERLINE ± .015.
5. CLEAN PER SPEC: V049-2-015
4. DO NOT USE CARBON STEEL BRUSHES OR BRUSHES CONTAMINATED WITH CARBON STEEL ON STAINLESS OR ALUMINUM MATERIAL.
3. SPOOL FABRICATION TO BE IN ACCORDANCE WITH SPEC. V049-2-097.
2. FOR FLANGE DETAILS SEE DWGS. V049-4-064, 067, 066 & 144.
1. THIS FLANGE INCLUDES AN ANNULAR CHANNEL BETWEEN O-RINGS, FOR A SINGLE PUMPOUT PORT.



ITEM	PART NUMBER	SUFFIX	QTY	UM	DESCRIPTION
17	V049M022		1	EA	O-RING, VITON (PER SPEC. V049-2-045)
18	V049M023		1	EA	O-RING, VITON (PER SPEC. V049-2-045)
19	V049M454		2	FT	TUBING, 304L SST, 3/4" O.D. x .065 WT
20	V049059G4		1	EA	SHIPPING COVER ASSY
21	V049080G4		1	EA	SHIPPING COVER ASSY
22	V049M740		1	EA	PSI NAME PLATE, 2" X 3"

ITEM	PART NUMBER	SUFFIX	QTY	UM	DESCRIPTION	
1	V0494064		1	EA	60.5" ID FLANGE DETAIL (FLAT)	
2	V0494067		1	EA	60.5" ID L96 OFFSET FLANGE DETAIL (GROOVED)	
3	V0494BE3AP1		1	EA	BELLOWS ASSY (PER SPEC V049-2-017)	
4	V0494BE3AP4		1	EA	60.5" ID SHELL, 304/304L SST, .375" THK	
5	V0494144		1	EA	60.5" ID FLANGE DETAIL (FLAT)	
6	###	3	4	EA	ROD, THRD, A36, 1 1/4"-7UNC X 20" LG.	
7	###	1	2.5	FT	8" X 6" X 5" THK RECT. TUBING, 304 SST	
8	###	3	8	EA	WASHER, 4" X 2" X 1/4", STL A588	
9	202678	3	90	EA	BOLT, SA193 B7, HEX, 7/8"-9UNC X 4" LG.	
10	V0494066		1	EA	60.5" ID L96 OFFSET FLANGE DETAIL (FLAT)	
11	V049M852		3	1.5	FT	BAR, 304 SST, 4" X 3/8" THK
12	202679	3	90	EA	NUT, SA193 B7, HEX, 7/8"-9UNC	
13	202581	3	240	EA	WASHER, STL, 1 3/4" O.D X 15/16" ID X 1/4" THK	
14	###	3	8	EA	WASHER PLATE, 5" X 3" X 1", STL A588	
15	###	3	16	EA	NUT, HEX, 1 1/4"-7UNC A563 GR-A	
16	###	1	4.5	FT	BAR, 304 SST, 2" X 1/2" THK	



APPROX. WEIGHT: 2119#  
TAG NO'S. VBE3A1, VBE3A2, LBE3A1

DWG. NO.	DESCRIPTION	DWG. NO.	DESCRIPTION

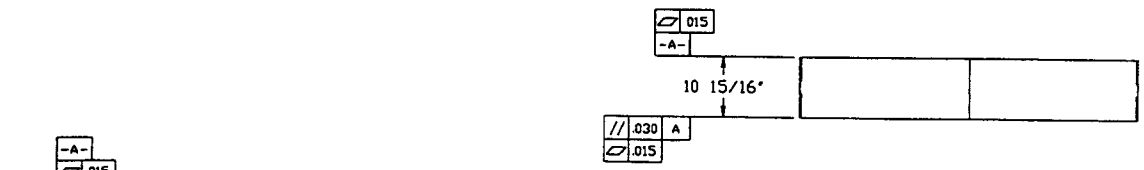
REV	DESCRIPTION
5	REISSUED FOR FAB/SHIPPING AS NOTED
4	REISSUED FOR FABRICATION AS NOTED
3	DESIGN UPDATE/ISSUED FOR FABRICATION
2	FABRICATION (SHELL ONLY)
1	DESIGN UPDATE/FABRICATION (BELLOWS ASSY. ONLY)
0	ISSUED FOR FAB

ISSUE DESCRIPTION	CHKD	BRVN	DATE	DESD

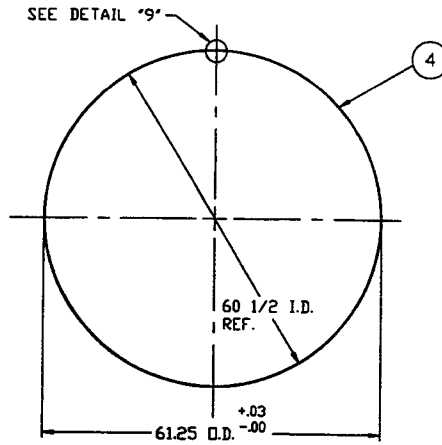
PROCESS SYSTEMS INTERNATIONAL INC.  
20 WALSH DR. WESTBOROUGH, MASSACHUSETTS 01581 USA

OFFSET SPOOL BE-3A  
60.50" ID x 60.50" ID  
LIGD VACUUM EQUIPMENT

CAD FILE: V0494BE3A/49BE3A1.D  
DWG. NO.: V049-4-BE3A  
SCALE: 1/8" = 1'-0"  
SHEET: 1 OF 2

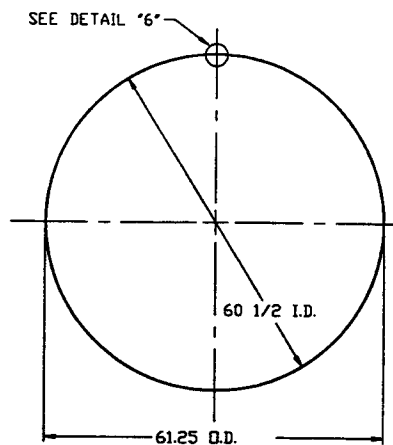


\* NOTE  
FINAL LENGTH TO BE DETERMINED  
BY BELLOWS VENDOR



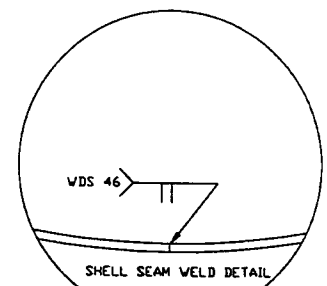
DETAIL "3"

MAKE FROM V049M177-1

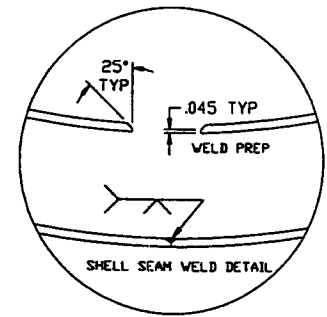


DETAIL "5"

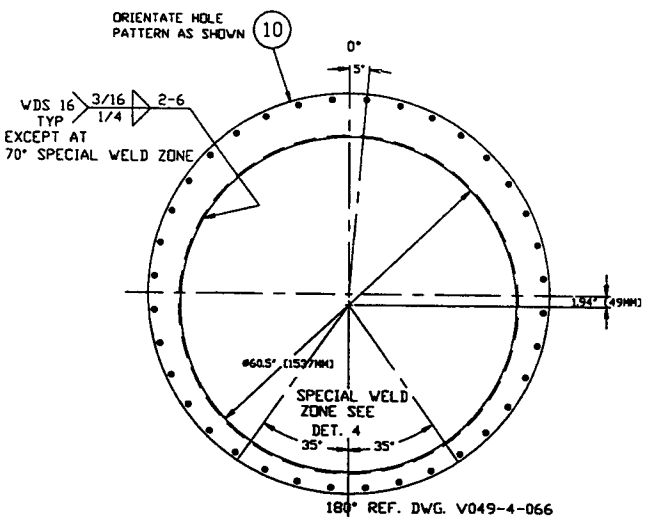
QTY 2  
MAKE FROM V049M177-1



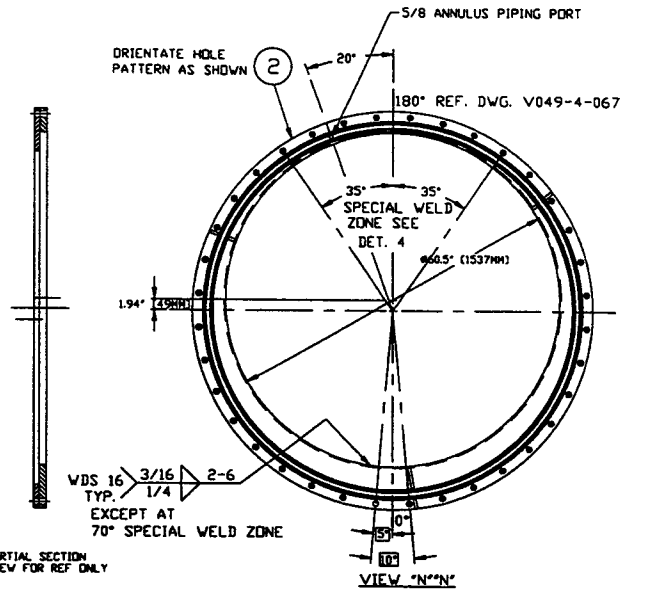
DETAIL "9"



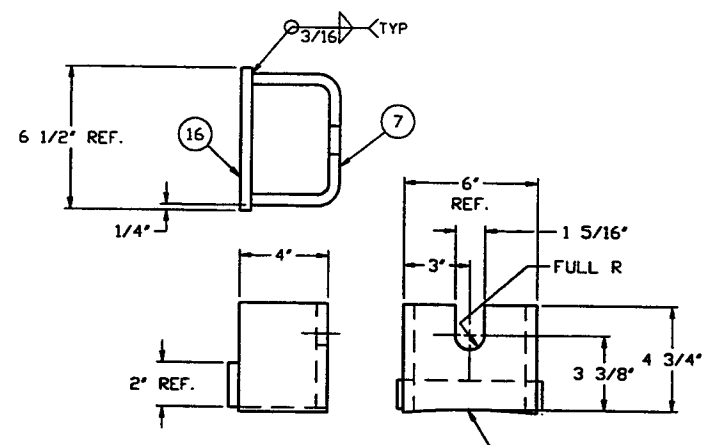
DETAIL "6"



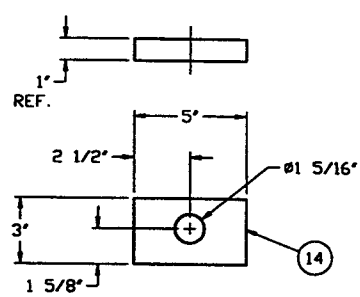
VIEW "K-K"



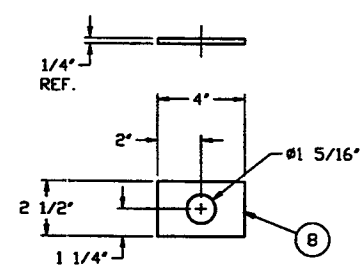
VIEW "N-N"



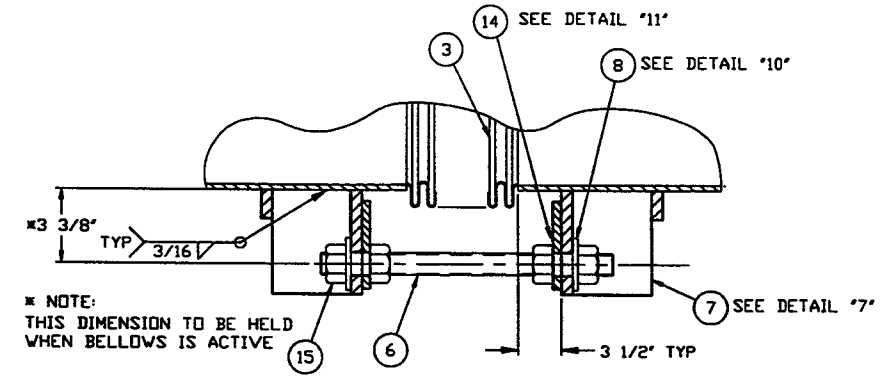
DETAIL "7"  
QTY. 8



DETAIL "11"  
QTY. 8

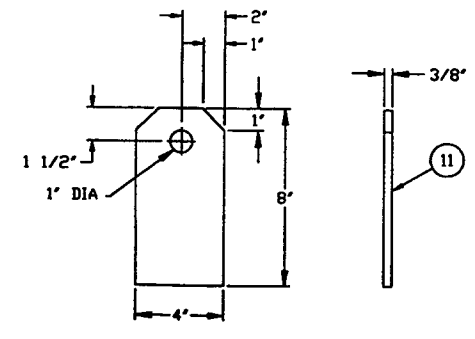


DETAIL "10"  
QTY. 8

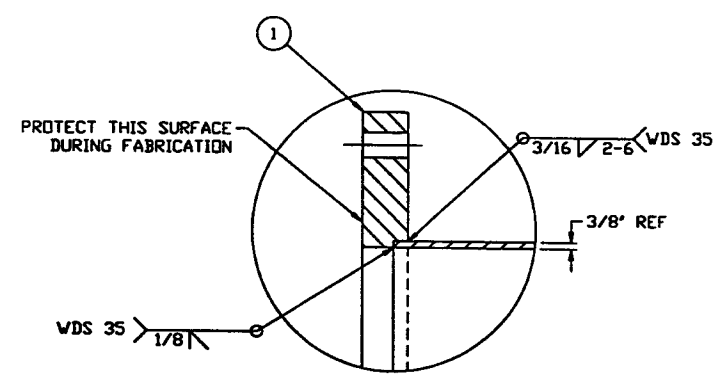


DETAIL "F"

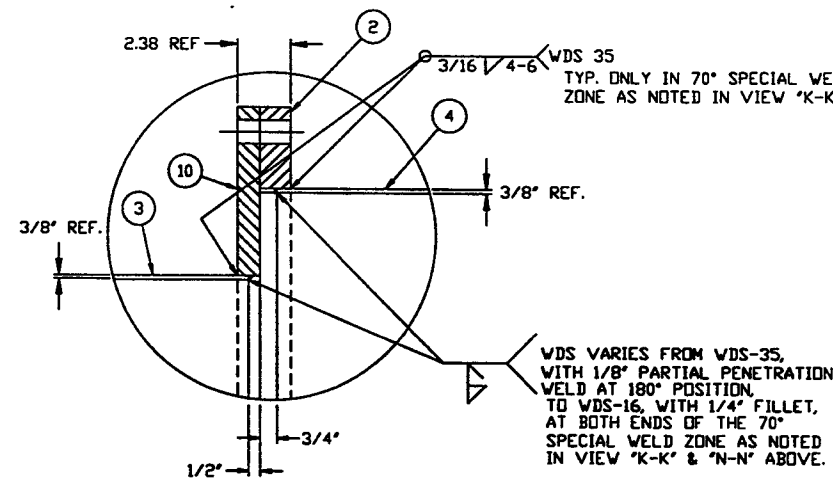
EXPANSION JOINT & TIE ROD  
TYP. 4 PLCS



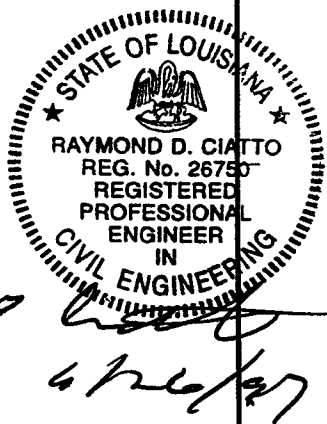
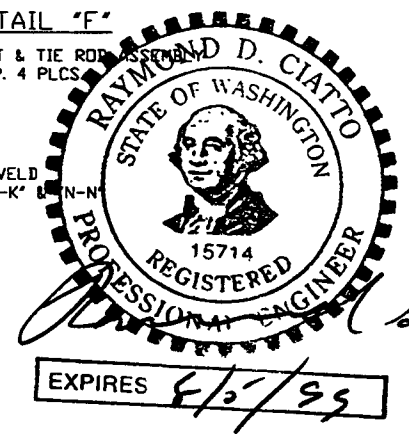
DETAIL "8"  
QTY. 2



DETAIL "2"  
TYP.- 2 PLCS.



DETAIL "4"



PROCESS SYSTEMS INTERNATIONAL, INC. 20 WALSHUR DR. WESTBOROUGH, MASSACHUSETTS 01581 USA			
OFFSET SPOOL BE-3A 60.25"ID x 60.50"ID LIGD VACUUM EQUIPMENT			
CAD FILE 49BE3AS2	SIZE D	DWG. NO. V049-4-BE3A	REV. 5
SCALE 1/4 & 1/16	SHEET 2 OF 2		