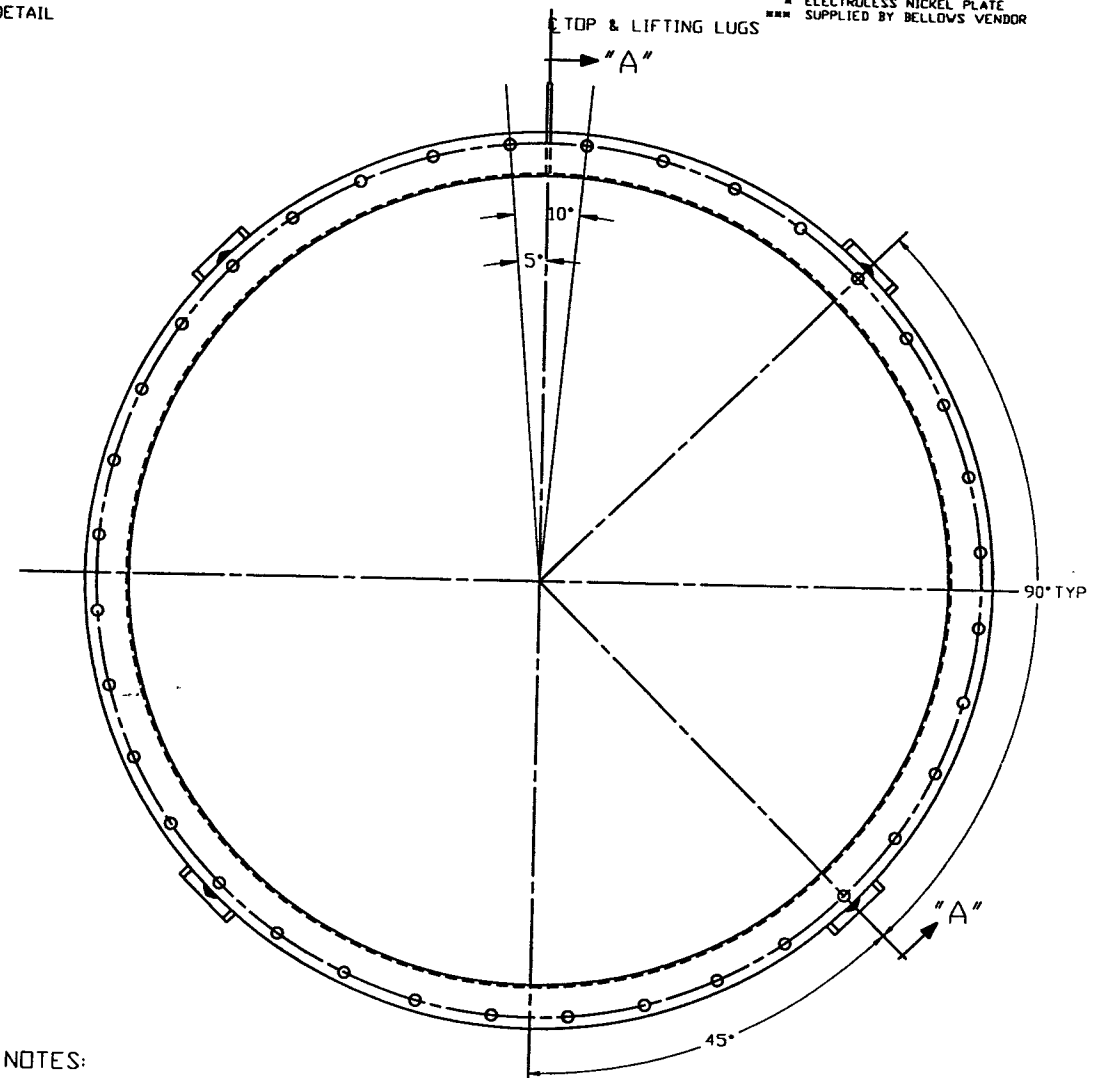
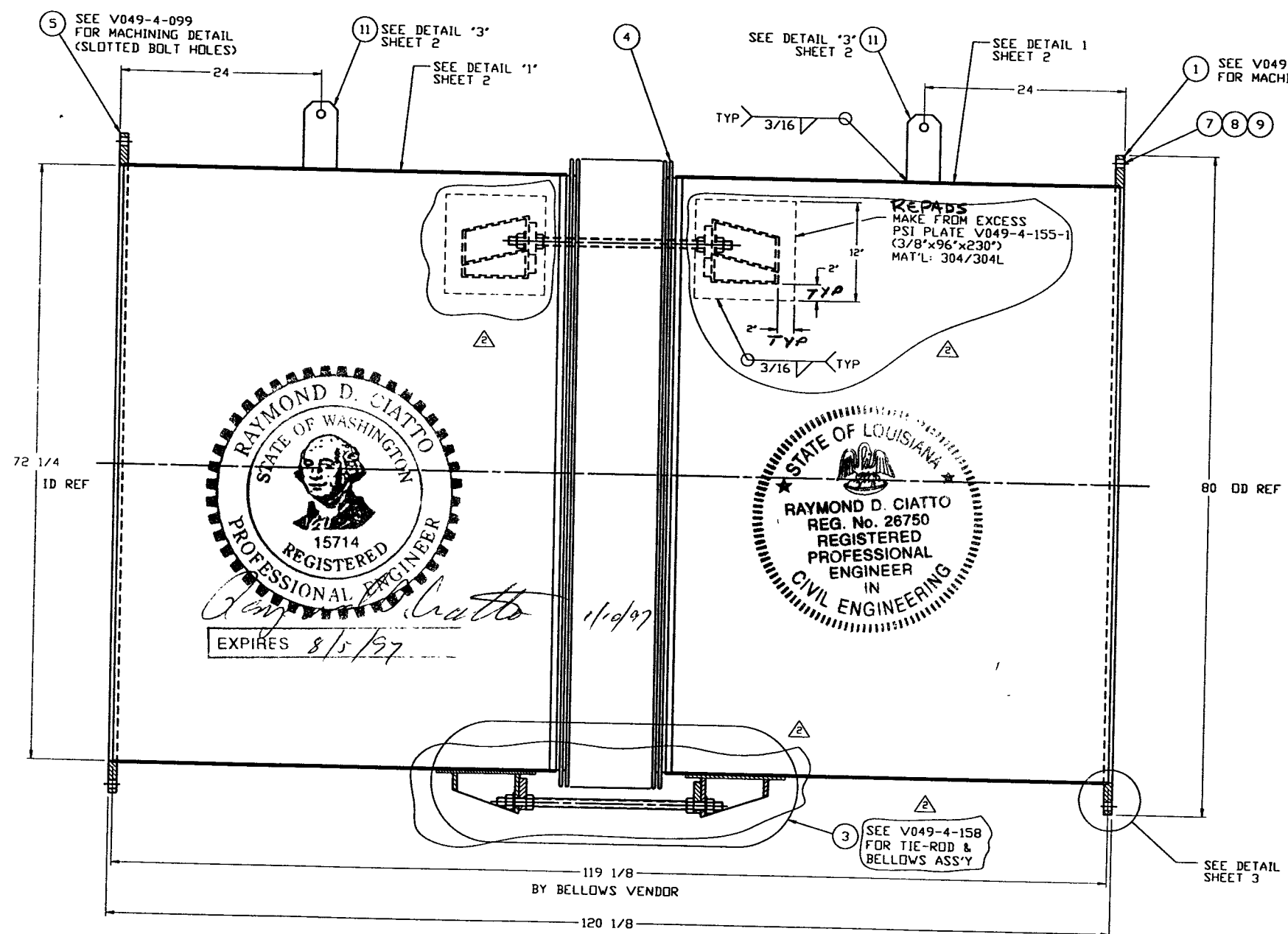


ITEM	PART NUMBER	SUFFIX	QTY	UM	DESCRIPTION
1	V0494028		1	EA	FLANGE, FLAT FACED, 72 1/4" ID x 80" OD x 1" THK
2					
3	***		4	EA	TIE-ROD ASS'Y (PER DWG. V049-4-158)
4	V0494BE1P1		1	EA	BELLOWS ASSY (PER SPEC V049-2-017)
5	V0494099		1	EA	FLANGE, FLAT FACED, 72 1/4" ID x 80" OD
6					
7	202678	3	36	EA	BOLT, SA193 B7, HEX, 7/8"-9UNC X 4" LG.
8	202679	3	36	EA	NUT, SA194 2H, HEX, 7/8"-9UNC
9	202581	3	72	EA	WASHER, STL, 1 3/4" OD X 15/16" ID X 1/4" THK.
10					
11	***	3	35	EA	BAR, 4" X 3/8" THK, 304 SST



- NOTES:
- EACH FINISHED SHELL IS TO BE MARKED WITH A SEQUENTIAL PSI SERIAL NUMBER. THE NUMBER IS TO BE MADE FROM THE DRAWING PLUS THE SEQUENTIAL NUMBER. V0494BE1-01, -02 ETC.
 - TIGHTEN TIE-ROD NUTS WITH BELLOWS IN 'FREE' POSITION TO 100 FT-LBS PRIOR TO LEAK TEST.
 - LEAK TEST & METHOD PER PSI SPEC: V049-2-014
 - CERTIFIED MANUFACTURER'S MATERIAL TEST REPORTS REQUIRED, AS NOTED.
 - 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.
 - SPOOL FABRICATION TO BE IN ACCORDANCE WITH SPEC. V049-2-097.
 - FOR FLANGE DETAILS SEE DWG. V049-4-028 & V049-4-099.
 - PLATES PRIOR TO ROLLING MUST HAVE DIAGONAL CORNER TO CORNER DIMENSIONS WITHIN 1/16" OF EACH OTHER.

D970381-02-V

APPROX. WEIGHT: 2513#

DWG. NO.	DESCRIPTION	DWG. NO.	DESCRIPTION
7	REFERENCE DRAWINGS	6	
5		5	
4		4	
3		3	
2		2	
1		1	

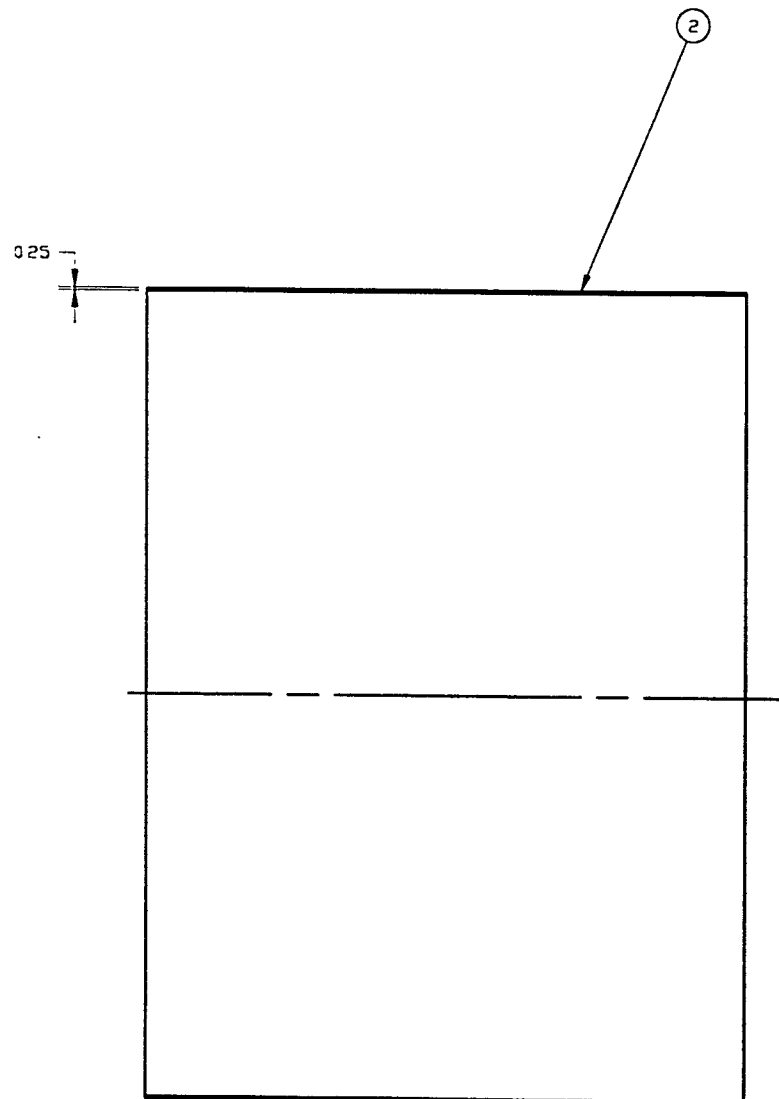
REV	DESCRIPTION	DATE	BY	CHKD	DRWN	DATE	DESD
2	DESIGN UPDATE/ISSUED FOR FABRICATION	1/8/97	PV				0403
1	DESIGN UPDATE/FABRICATION (BELLOWS ASSY ONLY)	9/11/96	BAR				0191
0	ISSUED FOR FDR	4/29/96	DA				0146
	PRELIMINARY	4/19/96	DA				

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

SPOOL BE-1
 72.25" ID
 LIGO VACUUM EQUIPMENT

CAD FILE: V0494BE1/4BE1S1
 SIZE: D
 DWG. NO.: V049-4-BE1
 SCALE: 1-1/2" = 1"
 SHEET: 1 OF 2

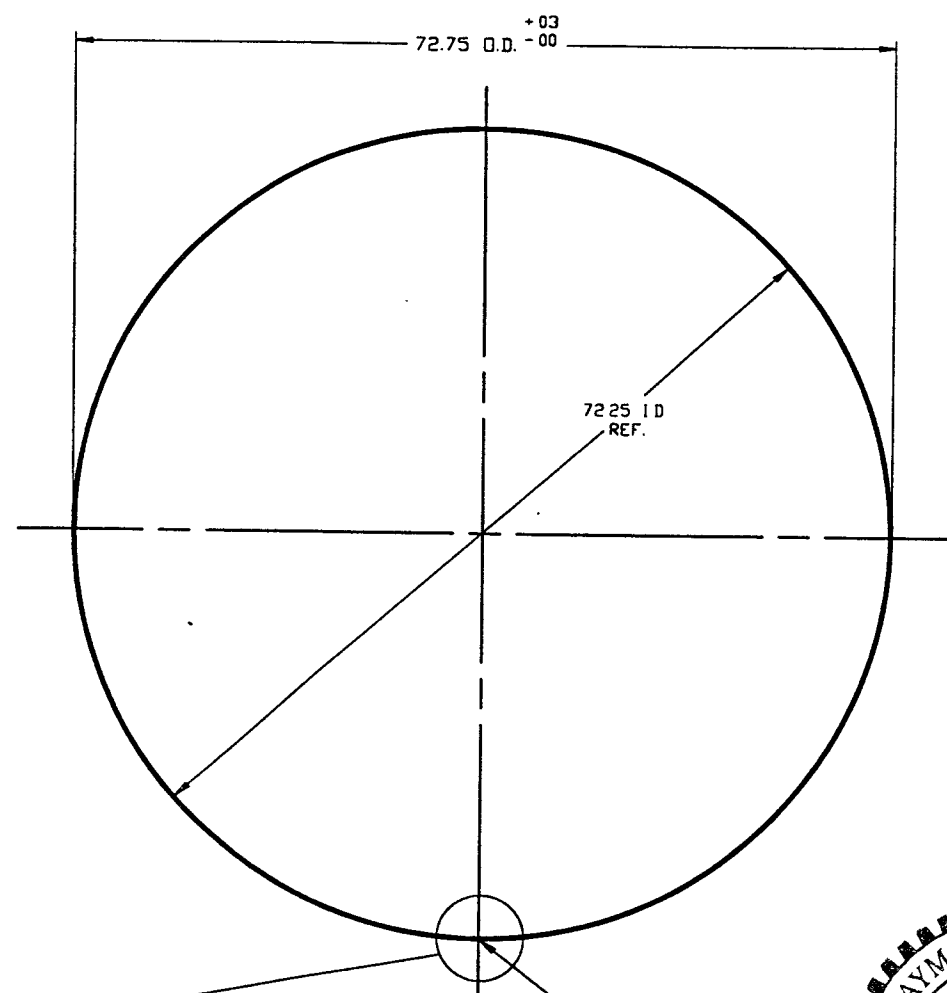
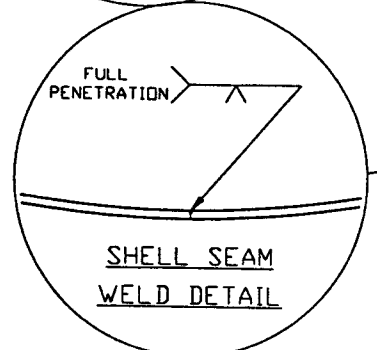
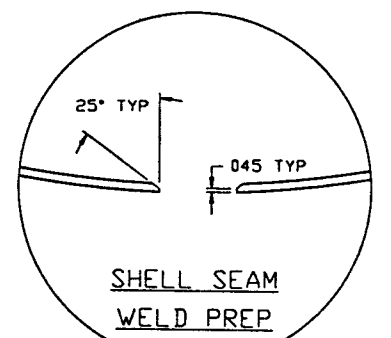
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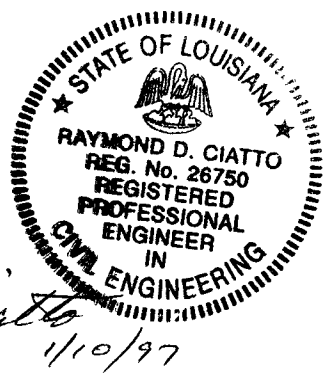
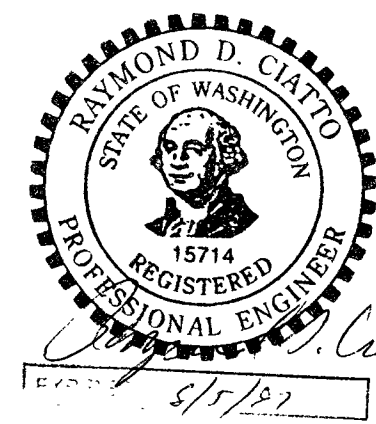
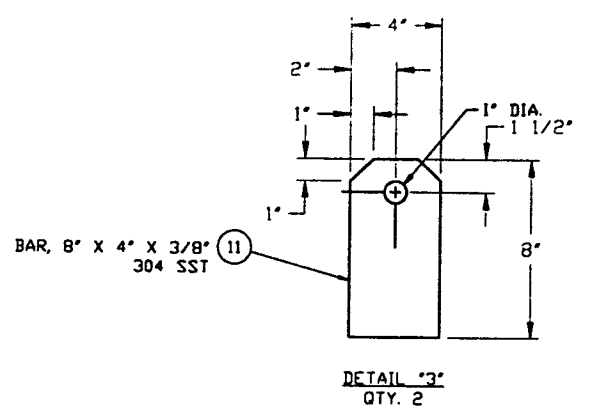
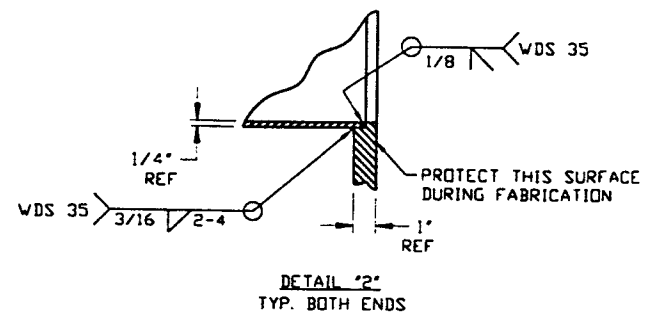
// A 030
015

* NOTE:
FINAL FINISHED LENGTH TO BE DETERMINED
BY BELLOWS VENDOR.

-A-
015



DETAIL 1
QTY. 2
MAKE FROM V049M154-1



PROCESS SYSTEMS INTERNATIONAL INC. 20 WALKUP DR. WESTBOROUGH, MASSACHUSETTS 01581 USA			
SPOOL BE-1 72.25" ID IGO VACUUM EQUIPMENT			
CAD FILE 43E1S2	SIZE D	DWG NO. V049-4-BE1	REV 2
SCALE AS NOTED	SHEET 2 OF 2		