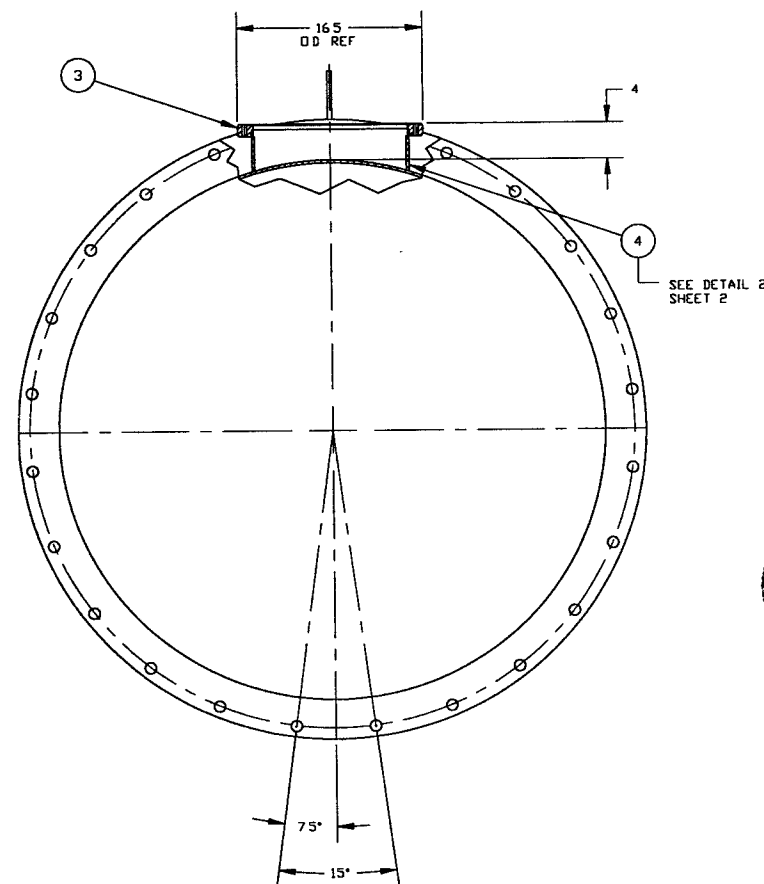
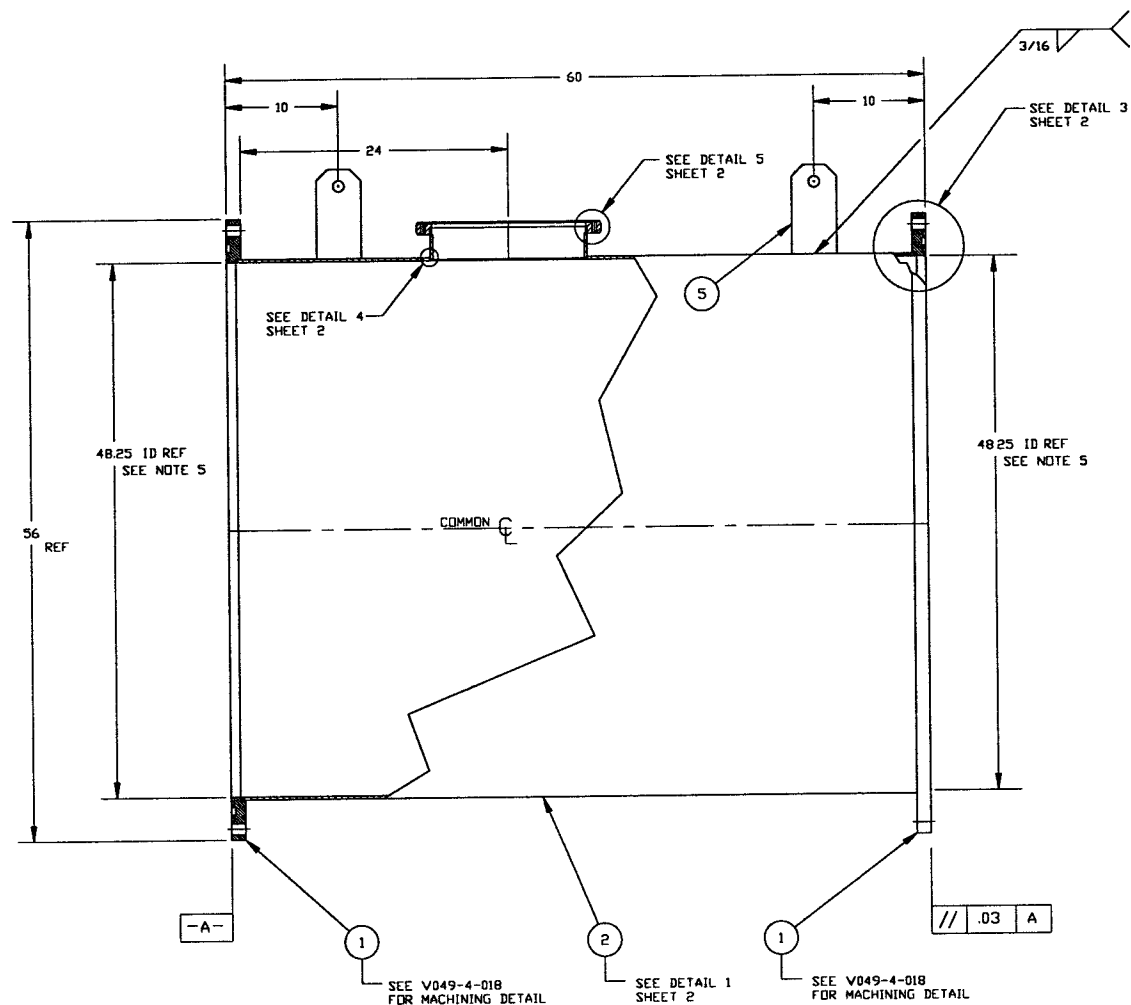


ITEM	PART NUMBER	SUFFIX	QTY	UM	DESCRIPTION
1	V049-4-018		2	EA	FLANGE 4B 1/4" I.D. GROOVED
2	XX		XX	SF	PLATE, 304L SST. 1/4"
3	XX		1	EA	CONFLAT FLANGE, 16 1/2" O.D. NONROTATABLE, BORED
4	XX		REF		MADE FROM ITEM 2
5	XX		2		LUGS 3/8"x4"x8" LG



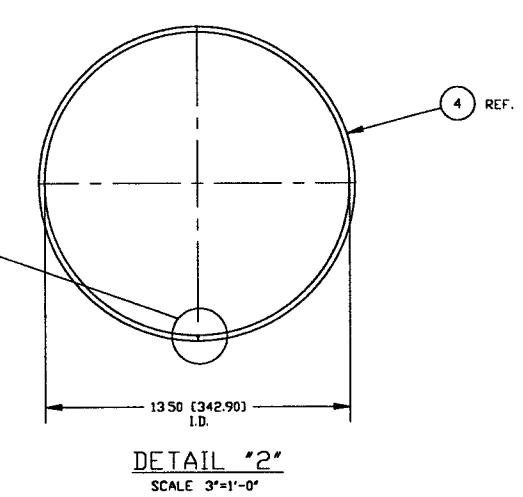
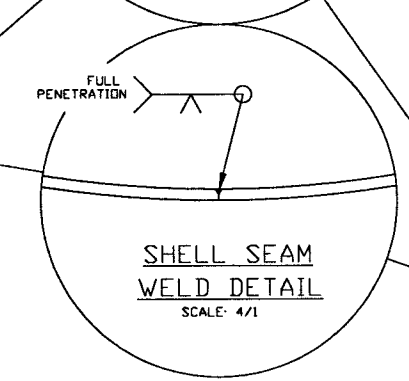
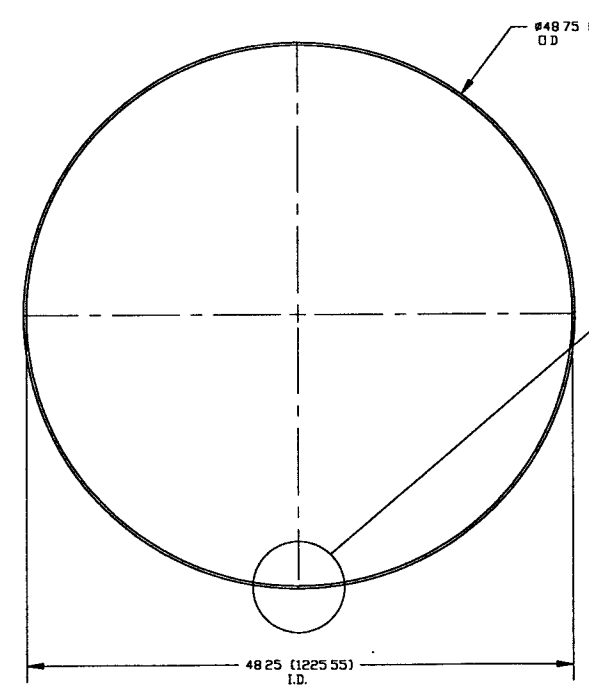
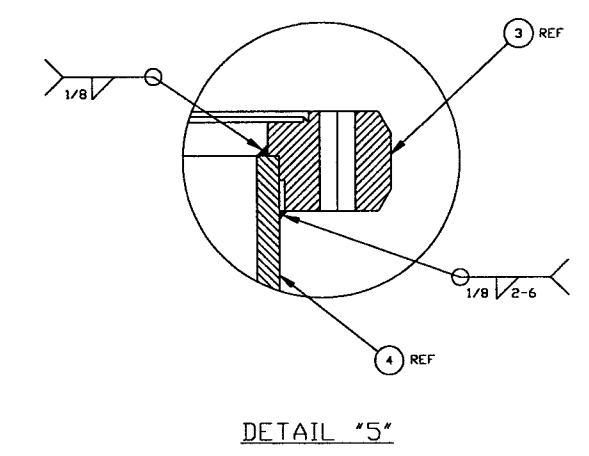
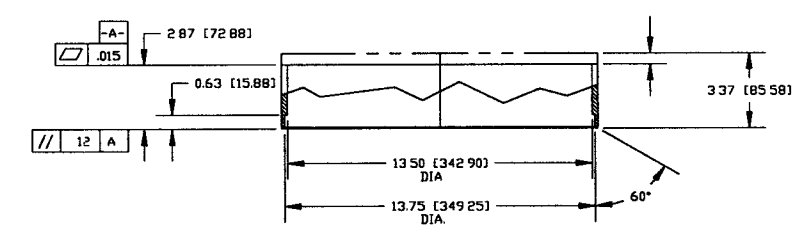
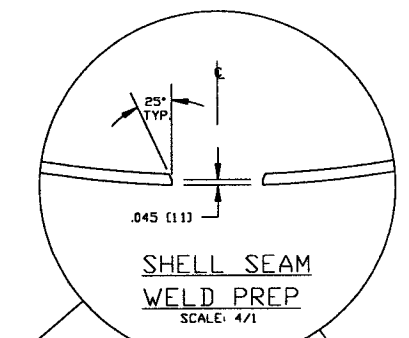
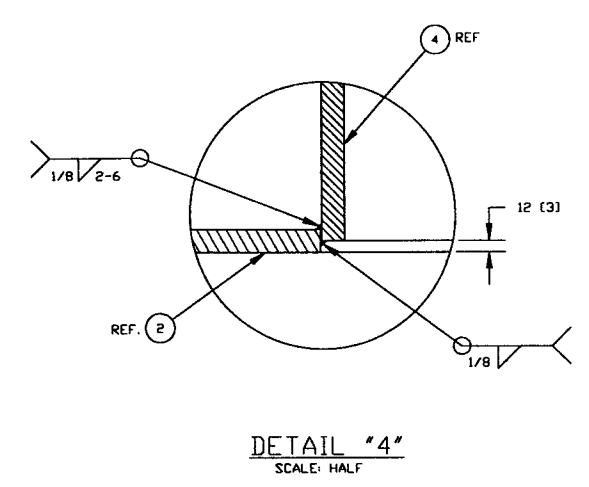
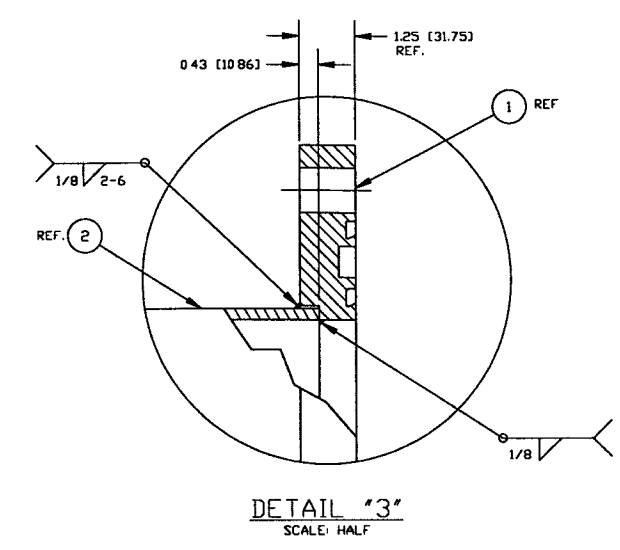
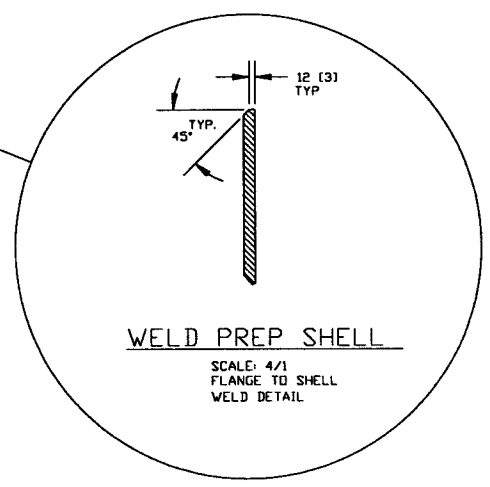
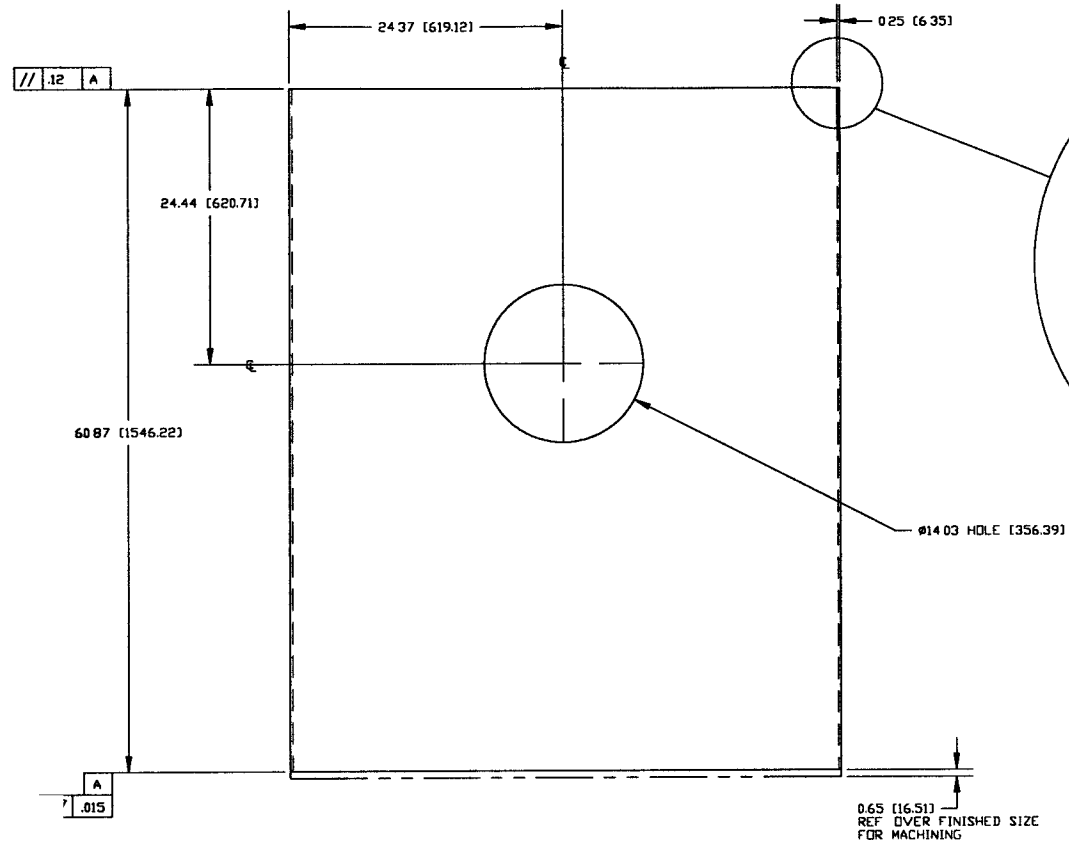
**NOT FOR
CONSTRUCTION**

NOTES:

10. LEAK TEST & METHOD PER PSI SPEC. V049-2-014
9. CERTIFIED MANUFACTURER'S MATERIAL TEST REPORTS REQUIRED.
8. BOLT HOLES TO STRADDLE CENTERLINES AS SHOWN, +/- 0.15
7. CLEAN PER SPEC. V049-2-015
6. DO NOT USE CARBON STEEL BRUSHES OR BRUSHES CONTAMINATED WITH CARBON STEEL ON STAINLESS OR ALUMINUM MATERIAL.
5. THE CENTER LINES OF ALL SHELLS AND FLANGES ARE TO LIE ON THE COMMON CENTER LINE WITHIN +/- 1/16.
4. SPOOL FABRICATION TO BE IN ACCORDANCE WITH SPEC. V049-2-097.
3. FOR FLANGE DETAILS SEE DWG. V049-4-018
2. THESE FLANGES EACH INCLUDE AN ANNULAR CHANNEL BETWEEN O-RINGS, MANIFOLD TO A SINGLE PUMPOUT PORT ON EACH CHAMBER, SEE DWG V049-4-
- ** 1. REGISTERED TRADEMARK, VARIAN VACUUM PRODUCTS; COMPATIBLE ALTERNATIVES ARE ACCEPTABLE.

Raymond D. Latta, P.E.
5/17/96 LIGO D961154-00-V

<p>THIS DOCUMENT CONTAINS PROPRIETARY INFORMATION BELONGING TO PROCESS SYSTEMS INTERNATIONAL, INC. OR ITS AFFILIATED COMPANIES AND SHALL BE USED ONLY FOR THE PURPOSE FOR WHICH IT WAS SUPPLIED. IT SHALL NOT BE COPIED, REPRODUCED OR OTHERWISE USED, NOR SHALL SUCH INFORMATION BE FURNISHED IN WHOLE OR IN PART TO OTHERS EXCEPT IN ACCORDANCE WITH THE TERMS OF ANY AGREEMENT UNDER WHICH IT WAS SUPPLIED OR WITH THE PRIOR WRITTEN CONSENT OF PROCESS SYSTEMS INTERNATIONAL, INC. AND SHALL BE RETURNED UPON REQUEST.</p>		<p>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± 1 ANGULAR APPROX 10°-20° BEND ± 2° TWO PLACE DECIMAL ± .01 THREE PLACE DECIMAL ± .005 FINISHED SURFACE RMS BREAK CORNERS IN OUT- REMOVE ALL BURRS</p>		<p>0 ISSUED FOR FDR</p>		<p>DA 4/29/96 0146</p>		<p>PROCESS SYSTEMS INTERNATIONAL, INC. 20 WALKUP DR. WESTBOROUGH, MASSACHUSETTS 01581 USA</p>	
<p>DO NOT SCALE THIS DRAWING</p>		<p>PL PRELIMINARY DESIGN UPDATE</p>		<p>DA 4/29/96 0146</p>		<p>DA 4/29/96 0146</p>		<p>SPPOOL B-4 48.25" ID LIGO VACUUM EQUIPMENT</p>	
<p>USED ON:</p>		<p>REV</p>		<p>DESCRIPTION</p>		<p>CHKD DRWN DATE DEDR</p>		<p>CAD FILE 484SI SIZE D DWG NO V049-4-B4 REV 0</p>	
<p>NEXT ASS'Y:</p>		<p>ISSUE DESCRIPTION</p>		<p>SCALE 1 1/2"=1'-0"</p>		<p>SHEET 1 OF 2</p>		<p>May 06, 1996 - 11:36:01</p>	



NOT FOR CONSTRUCTION

Raymond O. Lintz, P.E.
5/7/96

DETAIL '1'
SCALE: 1 1/2"=1'-0"

DETAIL '2'
SCALE: 3/4"=1'-0"

LIGO D961154-00-V

PROCESS SYSTEMS INTERNATIONAL, INC. 20 WALKUP DR. WESTBOROUGH, MASSACHUSETTS 01581 USA			
SPOOL B-4 48.25" ID LIGO VACUUM EQUIPMENT			
CAD FILE 4B4S2	SIZE D	DWG. NO. V049-4-B4	REV 0
SCALE AS NOTED	SHEET 2 OF 2		

MAY 06 1996 - 11:37:17