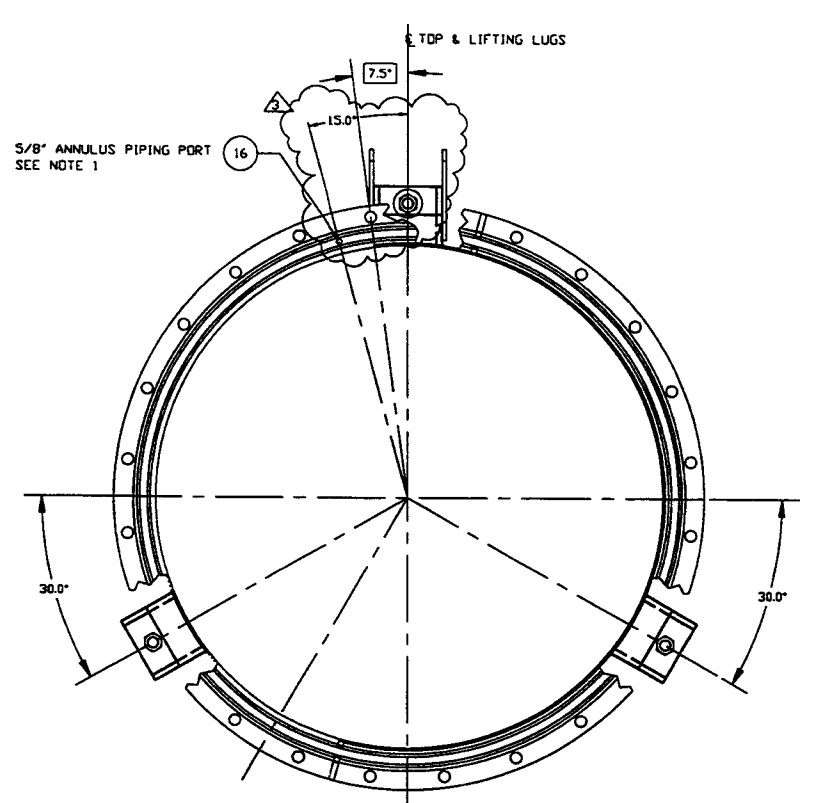
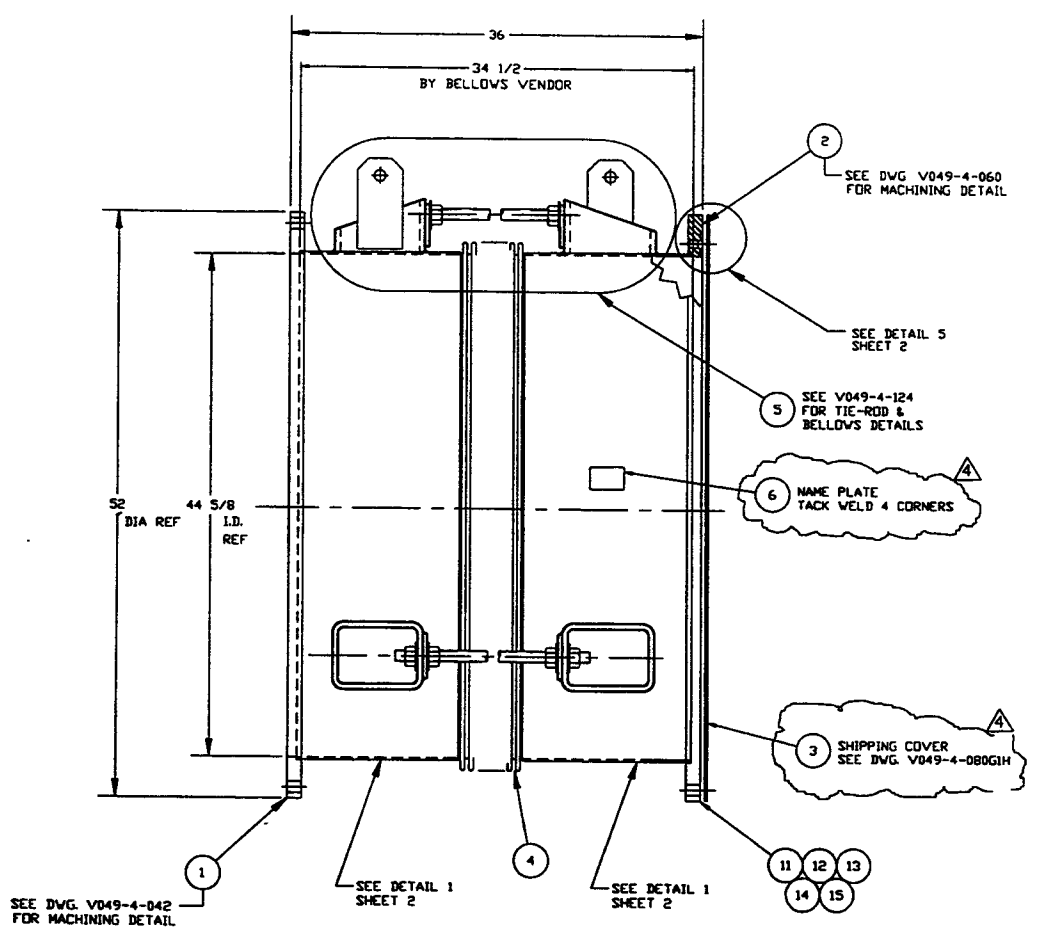


ITEM	PART NUMBER	SUFFIX	QTY	UM	DESCRIPTION
1	V0494042		1	EA	FLANGE, FLAT FACED, 44 5/8" ID
2	V0494060		1	EA	FLANGE, GROOVED, 44 5/8" ID
3	V0494080G4H		1	EA	SHIPPING COVER ASSY
4	V0494BE4P1		1	EA	BELLOWS ASSY (PER SPEC V049-2-017)
5	***		3	EA	TIE-ROD ASS'Y (PER DWG V049-4-124)
6	V049M740		1	EA	PSI NAME PLATE, 2' X 3'
7					
8					
9					
10					
11	202678		24	EA	BOLT, SA193 B7, HEX, 7/8-9 UNC X 4' LG
12	202679		24	EA	NUT, SA194 2H, HEX, 7/8-9 UNC
13	202581		48	EA	WASHER, STL, 1 3/4" OD X 15/16" ID X 1/4" THK
14	V049M026		1	EA	O-RING, VITON (PER SPEC. V049-2-025)
15	V049M027		1	EA	O-RING, VITON (PER SPEC. V049-2-025)
16	V0494061		1	EA	3/4" O.D. ELBOW x 2 3/4" O.D. CONFLAT FLANGE

\* ELECTROLESS NICKEL PLATING  
 \*\*\* SUPPLIED BY BELLOWS VENDOR



RAYMOND D. CIATTO  
 STATE OF WASHINGTON  
 REGISTERED PROFESSIONAL ENGINEER  
 15714  
 EXPIRES 1/15/97

STATE OF LOUISIANA  
 RAYMOND D. CIATTO  
 REG. No. 26750  
 REGISTERED PROFESSIONAL ENGINEER  
 IN CIVIL ENGINEERING  
 1/28/97

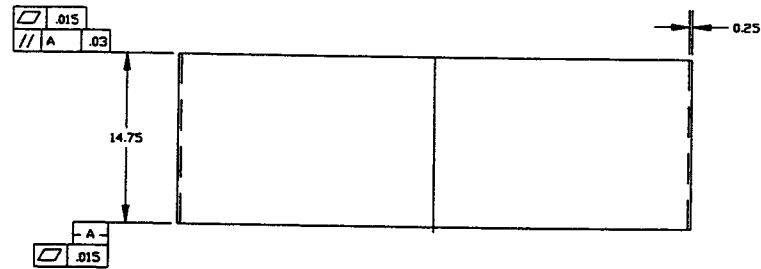
NOTES:

- PLATES PRIOR TO ROLLING MUST HAVE DIAGONAL CORNER TO CORNER DIMENSIONS WITHIN 1/16" OF EACH OTHER.
- 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. V0494BE4-01, -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 ± 0.15.
- 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. V049-4-042 & 060.
- THIS FLANGE INCLUDES AN ANNULAR CHANNEL BETWEEN O-RINGS FOR A SINGLE PUMPOUT PORT, SEE DWG. V049-4-061.

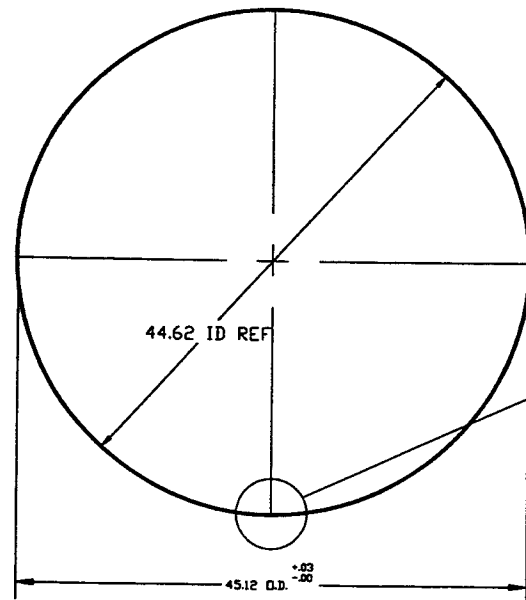
TAG NOS. WBE 4A, WBE 4B, WBE 4C, WBE 4D, WBE 4E, WBE 4F, WBE 4G, WBE 4H  
 LBE 4A, LBE 4B, LBE 4C, LBE 4D

APPROX. WEIGHT: 2703#

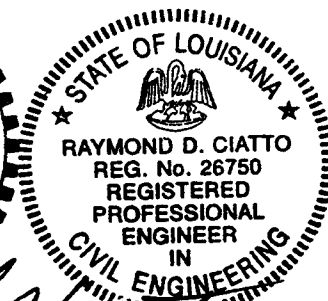
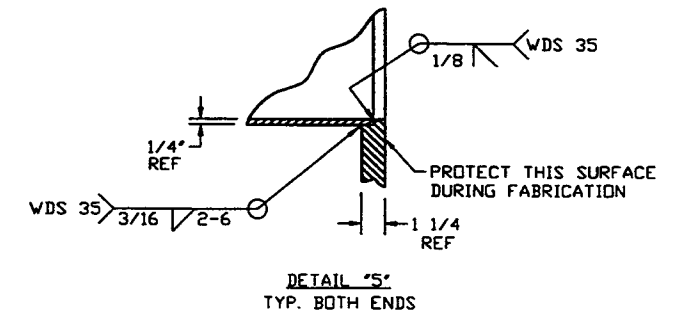
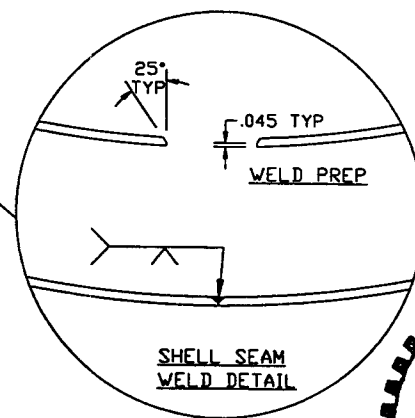
PROPRIETARY AND CONFIDENTIAL THIS DOCUMENT CONTAINS PROPRIETARY INFORMATION BELONGING TO PROCESS SYSTEMS INTERNATIONAL, INC. OR ITS AFFILIATED COMPANIES AND SHALL BE USED ONLY FOR THE PURPOSE FOR WHICH IT WAS SUPPLIED. IT SHALL NOT BE COPIED, REPRODUCED OR OTHERWISE USED, NOR SHALL SUCH INFORMATION BE 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.		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± .1 ANGULAR ± 30° BOND ± 2° TWO PLACE DECIMAL ± .03 THREE PLACE DECIMAL ± .005 FINISHED SURFACE THIS BREAK CORNERS IN OUT REMOVE ALL BURRS	4 REISSUED FOR FAB/SHIPPING AS NOTED 3 DESIGN UPDATE/RE-ISSUED FOR FABRICATION 2 DESIGN UPDATE/ISSUED FOR FABRICATION 1 DESIGN UPDATE/FABRICATION (BELLOWS ASSY. ONLY) 0 ISSUED FOR FDR P1 PRELIMINARY DESIGN UPDATE	RSW GS R2C PEF GS RDC DMV REC PEF GS RDC DMV REC PEF GS RDC REC SPIDER MA DMV RDC REC DA PV 3/27/96	SPIDER 05/09/97 0484 REC 03/08/97 0444 PV 11/22/96 0180 MA 9/11/96 0191 DA 4/29/96 0146 PV 3/27/96	PROCESS SYSTEMS INTERNATIONAL, INC. 30 WALWUP DR. WESTBOROUGH, MASSACHUSETTS 01581 USA SPOOL BE-4 44 5/8" ID LIGO VACUUM EQUIPMENT	GAB FILE BE451 SIZE D DWG. NO. V049-4-BE4 REV. 4	SCALE 1-1/2" = 1' SHEET 1 OF 2
DWG. NO.	DESCRIPTION	DWG. NO.	DESCRIPTION	ISSUE DESCRIPTION	CHKD DRWN DATE DEC	1-1/2" = 1' SHEET 1 OF 2		
REFERENCE DRAWINGS								



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



**DETAIL 1**  
QTY (2)  
MAKE FROM V049M158-1



EXPIRES 8/1/97  
3/28/97

SEE SHEET 1 FOR REVISIONS

<b>PROCESS SYSTEMS INTERNATIONAL INC.</b> 20 WALKUP DR. WESTBOROUGH, MASSACHUSETTS 01581 USA			
SPOOL BE-4 44.62" ID LIGD VACUUM EQUIPMENT			
CAD FILE 4BE4S2	SIZE D	REV. NO. V049-4-BE4	REV. 4
SCALE AS NOTED	SHEET 2 OF 2		