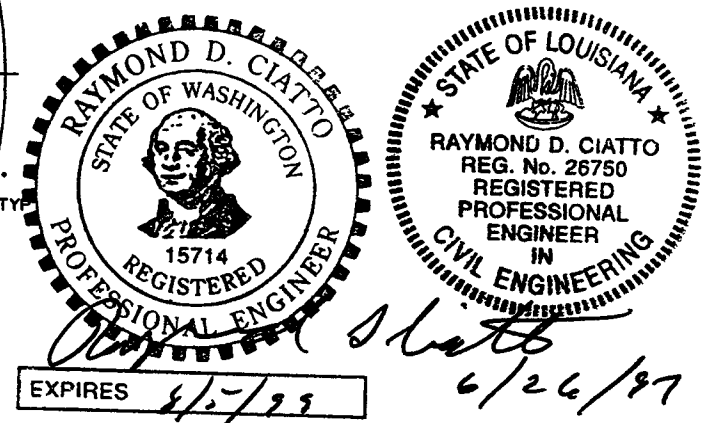


ITEM	PART NUMBER	SUFFIX	QTY	UH	DESCRIPTION
1	V0494097		1	EA	FLANGE, FLAT FACED, 60 1/2\"/>
2	V0494098		1	EA	FLG. FLAT, SLOTTED, 60 1/2\"/>
3	###		4	EA	TIE-ROD ASSY. (PER V049-4-158)
4	V0494BE2P1		1	EA	BELLOWS ASSY (PER SPEC #V049-2-017)
5	V0494059G4		1	EA	SHIPPING COVER ASSY
6	V0494080G4		1	EA	SHIPPING COVER ASSY
7	V049H740		1	EA	PSI NAME PLATE, 2' X 3'
8					
9					
10	###		3	L5	FT BAR, 4' X 3/8' 304 SST (LIFTING LUGS)
11	202679		3	60	EA NUT, SA 194 B7, HEX 7/8-9UNC
12	202678		3	60	EA BOLT, SA 193 B7, HEX HD 7/8-9UNCx4\"/>
13	202581		3	180	EA WASHER, STL, 1 3/4 ODx15/16 IDx1/4\"/>

■ ELECTROLESS NICKEL PLATE
 ### SUPPLIED BY BELLOWS VENDOR



- NOTES:
- PLATES PRIOR TO ROLLING MUST HAVE DIAGONAL CORNER TO CORNER DIMENSIONS WITHIN 1/16\"/>
 - 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, V0494BE2-01, -02 ETC.
 - TIGHTEN TIE-ROD NUTS WITH BELLOWS IN "FREE" POSITION TO 100 FT.LB. 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.
 - FABRICATION TO BE IN ACCORDANCE WITH SPEC. V049-2-097.
 - FOR FLANGE DETAILS SEE DWG. V049-4-097

TAG NO'S: VBE-2A, VBE-2B, LBE-2A, LBE-2B

APPROX. WEIGHT: 1386#

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 ANY OTHER PARTY WITHOUT THE WRITTEN CONSENT OF PROCESS SYSTEMS INTERNATIONAL, INC. AND SHALL BE RETURNED UPON REQUEST.

DWG. NO.	DESCRIPTION	DWG. NO.	DESCRIPTION

SYMBOL	CHARACTERISTIC	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
	FLATNESS	FRACTIONAL & 1/16
	CYLINDRICITY	FRACTIONAL & 1/16
	PARALLELISM	FRACTIONAL & 1/16
	PERPENDICULARITY	FRACTIONAL & 1/16
	ANGULARITY	FRACTIONAL & 1/16
	TRUE POSITION	FRACTIONAL & 1/16
	CONCENTRICITY	FRACTIONAL & 1/16

REV	DESCRIPTION	CHKD	BRVN	DATE	BY
3	REISSUED FOR FAB/SHIPPING AS NOTED			5/20/97	0487
2	DESIGN UPDATE/ISSUED FOR FABRICATION	PEF	GS	RDC	DMV
1	DESIGN UPDATE /FABRICATION (BELLOWS ASSY. ONLY)	PEF	GS	RDC	REC
0	ISSUED FOR FAB			4/29/96	0146
PI	PRELIMINARY			4/17/96	

PROCESS SYSTEMS INTERNATIONAL, INC.
 30 WALCUP DR. WESTBOROUGH, MASSACHUSETTS 01581 USA

SPOOL BE-2
 60.50\"/>

LIGO-D961160-03-V

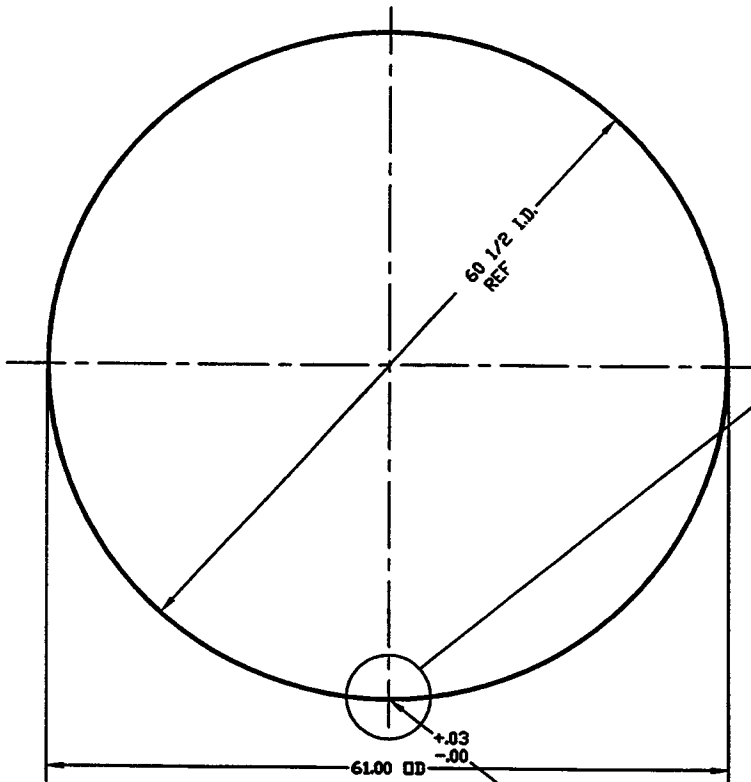
	.015
// A	.03

40.75
REF

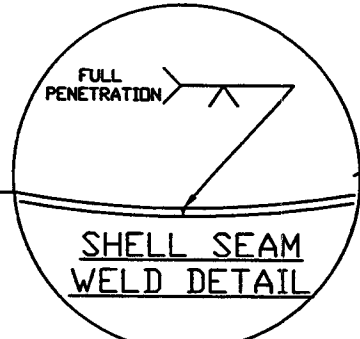
0.25

	.015
-A-	

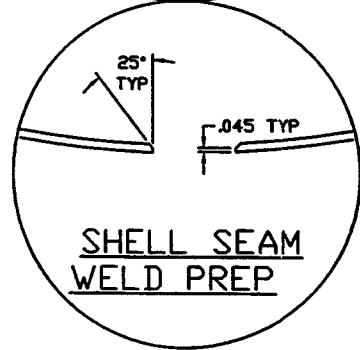
* NOTE: FINAL FINISHED LENGTH TO BE DETERMINED BY BELLOWS VENDOR



DETAIL "1"
QTY. 1
MAKE FROM V049M153-1



SHELL SEAM WELD DETAIL



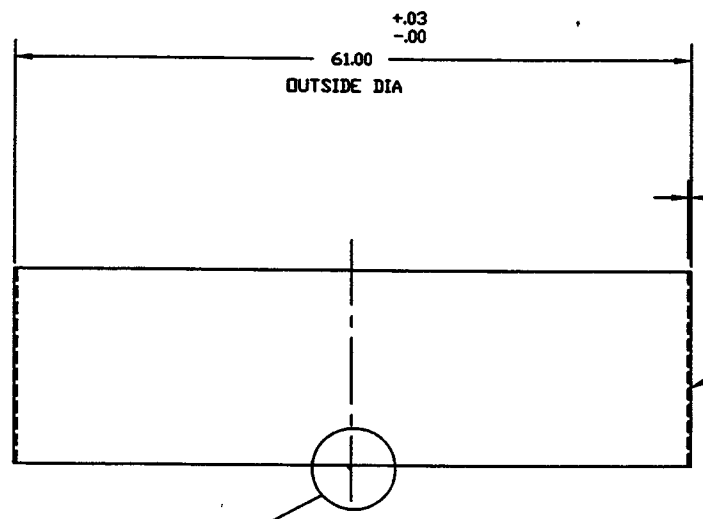
SHELL SEAM WELD PREP

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

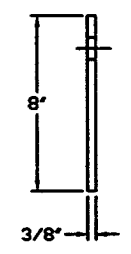
	.015
// A	.03

17.81
REF

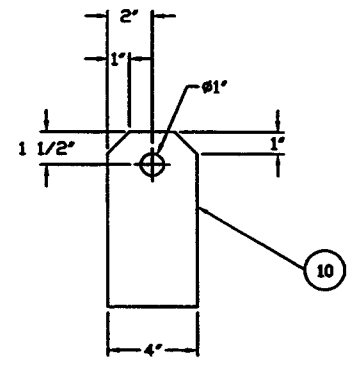
	.015
-A-	



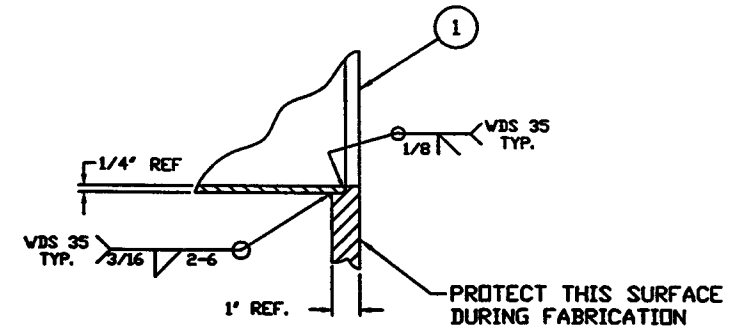
DETAIL "2"
QTY. 1
MAKE FROM V049M153-1



3/8"



DETAIL #7
QTY. 2



DETAIL #5
TYP. BOTH END

STATE OF WASHINGTON
RAYMOND D. CIATTO
REGISTERED PROFESSIONAL ENGINEER
15714

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

Raymond D. Ciatto
6/26/97

PROCESS SYSTEMS INTERNATIONAL, INC. 30 WILKIN DR. WESTBOROUGH, MASSACHUSETTS 01581 USA			
SPOOL BE-2 60.50" ID LIGO VACUUM EQUIPMENT			
CAD FILE 48C252	SIZE D	DWG. NO. V049-4-BE2	REV. 3
SCALE AS NOTED	SHEET 1	2 OF 2	

NOV 26, 1996 - 09:45:16