

ITEM	PART NUMBER	SUFFIX	QTY	UM	DESCRIPTION
1	V0494071		1	EA	FLANGE, FLAT FACED, 48 1/4" ID x 80" OD x 1" THK
2	V0494018		1	EA	FLANGE, GROOVED, 48 1/4" ID x 56" OD x 1-1/4" THK
3	V0494A2P3		1	EA	SHELL, 304/304L SST, 1/4" THK
4					
5	V049M321		3	6 EA	HALF NIPPLE, SST 304L WITH CONFLAT FLANGE, 10" O.D. x 8" O.D. TUBE x 1/8" WT
6	202667		3	6 EA	BLANK CONFLAT, SST 304L, 10" O.D.
7	V049M777		144	EA	BOLT, HEX HD, 5/16-18 x 2 1/2" LG, 18-8 SST
8	202671		3	6 EA	GASKET, COP COFH, CONFLAT 10" O.D.
9	V0494159		2	EA	LIFTING LUG DETAIL
10	202678		3	24 EA	BOLT, SA 193 B7, HEX, 7/8-9UNC x 4" LG
11	202679		3	24 EA	NUT, SA 194 2H, HEX, 7/8-9UNC
12	202581		3	48 EA	WASHER, STL, 1 3/4 O.D. x 15/16 I.D. x 1/4" THK
13	V049M024		1	EA	O-RING, VITRON, (PER SPEC V049-2-045)
14	V049M025		1	EA	O-RING, VITRON, (PER SPEC V049-2-045)
15	V049M782		144	EA	NUT, HEX, SILICON BRZ, 5/16-18
16	V049M785		288	EA	WASHER, FLAT, 5/16, 18-8 SST
17	V049M061		1	EA	3/4" O.D. ELBOW x 2 3/4" O.D. CF.
18	V0494059G3		1	EA	SHIPPING COVER 48" WITH FILTERS
19	V049M740		1	EA	NAMEPLATE 2" x 3"

* ELECTROLESS COATING
 ALL CONFLAT BOLT HOLES TO STRADDLE VERTICAL CENTERLINE SEE NOTE 14.

RAYMOND D. CIATTO
 STATE OF WASHINGTON
 REGISTERED PROFESSIONAL ENGINEER
 15714
 8/5/99

RAYMOND D. CIATTO
 STATE OF LOUISIANA
 REGISTERED PROFESSIONAL ENGINEER
 REG. No. 26750
 IN CIVIL ENGINEERING
 6/24/97

- NOTES:
- WDS NO'S. REFER TO WELD DATA SPEC. V049-2-024.
 - CONFLAT LEAK CHECK SLOTS ARE TO BE POSITIONED ON VERTICAL CENTERLINE.
 - CONFLAT FLANGES ARE TO HAVE PROTECTIVE COVERS AT ALL TIMES DURING & AFTER MANUFACTURING.
 - 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. V0494A2-01, -02 ETC.
 - PLATES PRIOR TO ROLLING MUST HAVE DIAGONAL CORNER TO CORNER DIMENSIONS WITHIN 1/16" OF EACH OTHER.
 - MACHINING & ROLLING PER SPEC V049-2-136.
 - FLANGE INCLUDES AN ANNULAR CHANNEL BETWEEN O-RINGS FOR A SINGLE PUMPOUT PORT, SEE DWG. V049-4-061.
 - THE CENTERLINES OF ALL SHELLS AND END FLANGES ARE TO LIE ON THE COMMON CENTER LINE WITHIN ± 1/16".
 - 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. V049-4-071 & V049-4-018.

TAG NO. LA-2A, LA-2B
 APPROX WEIGHT: 1534#

SYMBOL	CHARACTERISTIC	UNLESS OTHERWISE SPECIFIED	REV	DESCRIPTION	CHKD	DRWN	DATE	DESN
□	FLATNESS	DIMENSIONS ARE IN INCHES	3	ISSUED FOR FABRICATION AS NOTED			06/26/97	0444
○	CYLINDRICITY	TOLERANCES: FRACTIONAL ± .1; ANGULAR APPROX 30°-30° BEND 42°	2	ISSUED FOR FABRICATION			11/22/96	0180
//	PARALLELISM	TWO PLACE DECIMAL ± .03	1	DESIGN UPDATE			10/9/96	0313
⊥	PERPENDICULARITY	THREE PLACE DECIMAL ± .005	0	ISSUED FOR FABRICATION (SHELL ONLY)			10/1/96	0283
∠	ANGULARITY	FINISHED SURFACE RUN OUT; BREAK CORNERS IN REMOVE ALL BURRS						
⊕	TRUE POSITION	DO NOT SCALE THIS DRAWING						
◎	CONCENTRICITY	USED ON NEXT ASSY.						

DWG. NO.	DESCRIPTION	DWG. NO.	DESCRIPTION

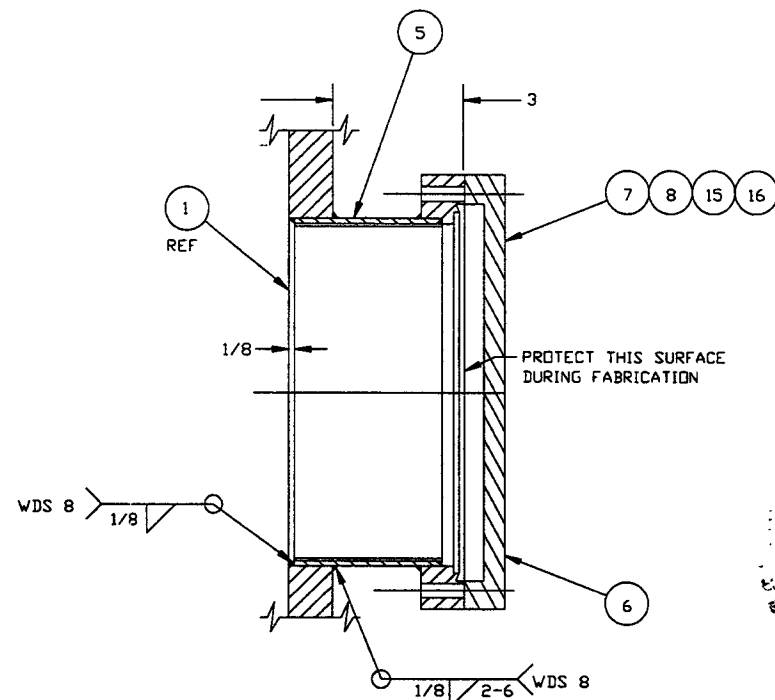
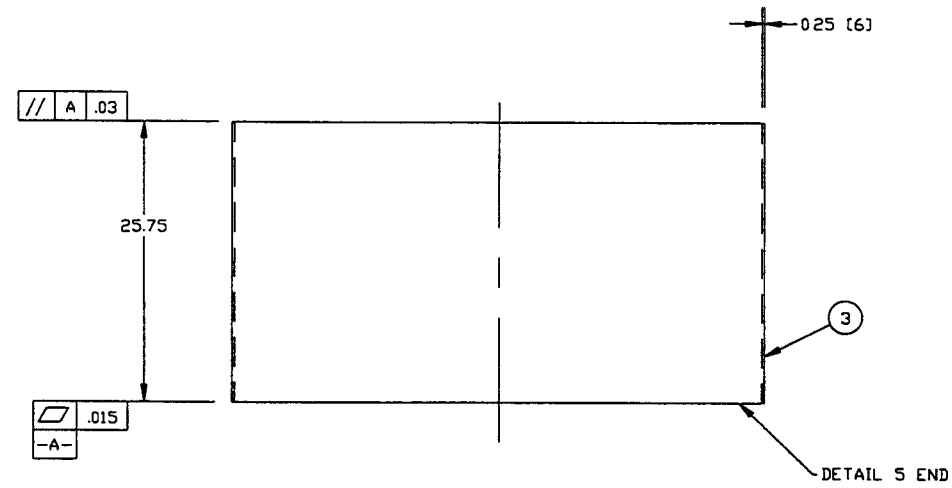
REV	DESCRIPTION	CHKD	DRWN	DATE	DESN
3	ISSUED FOR FABRICATION AS NOTED			06/26/97	0444
2	ISSUED FOR FABRICATION			11/22/96	0180
1	DESIGN UPDATE			10/9/96	0313
0	ISSUED FOR FABRICATION (SHELL ONLY)			10/1/96	0283

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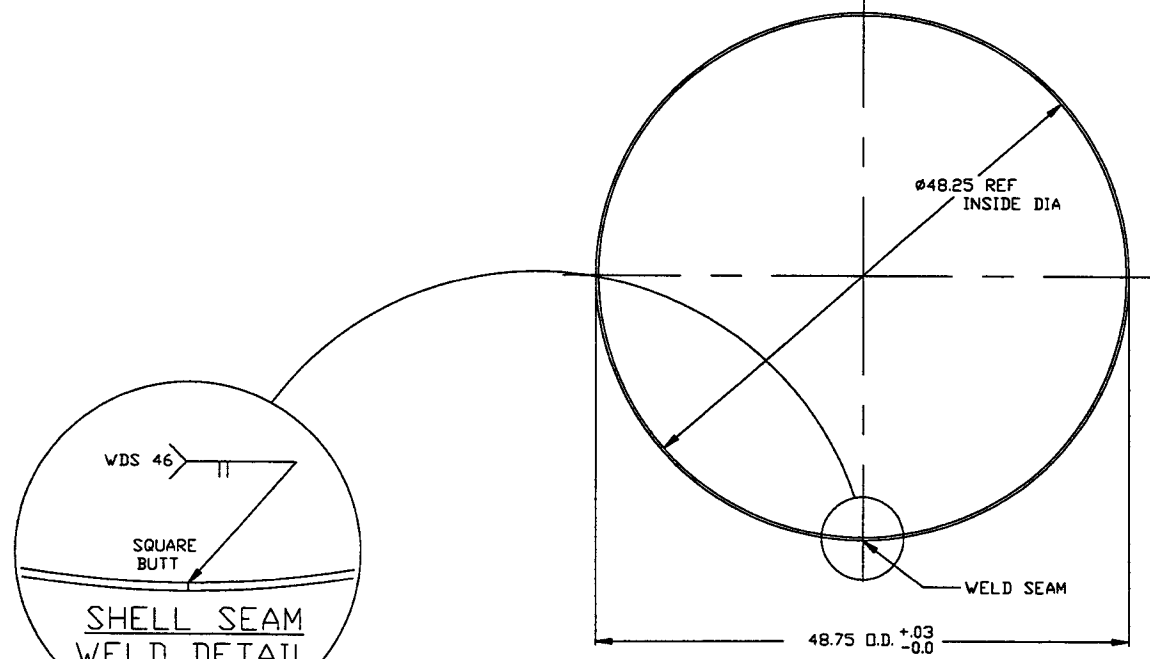
PROCESS SYSTEMS INTERNATIONAL, INC.
 20 WALCUP DR. WESTBOROUGH, MASSACHUSETTS 01581 USA

ADAPTER A-2
 48.25" ID x 72.25" ID
 LIGD VACUUM EQUIPMENT

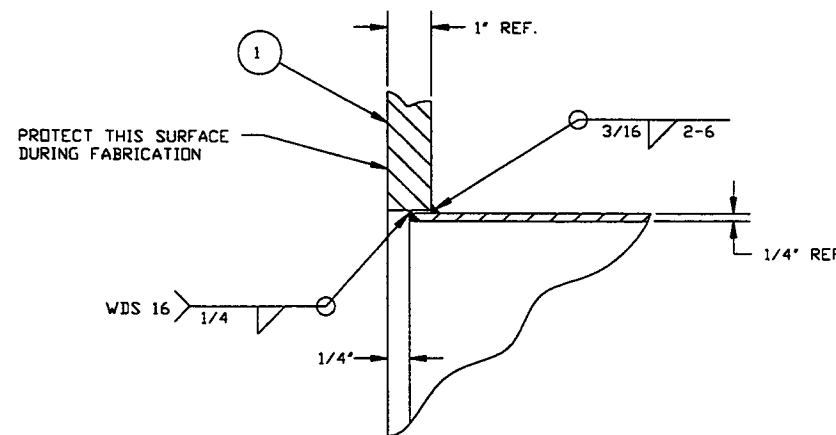
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 Dwg No: V049-4-A2
 SCALE: 1-1/2" = 1'-0"
 SHEET: 1 OF 2



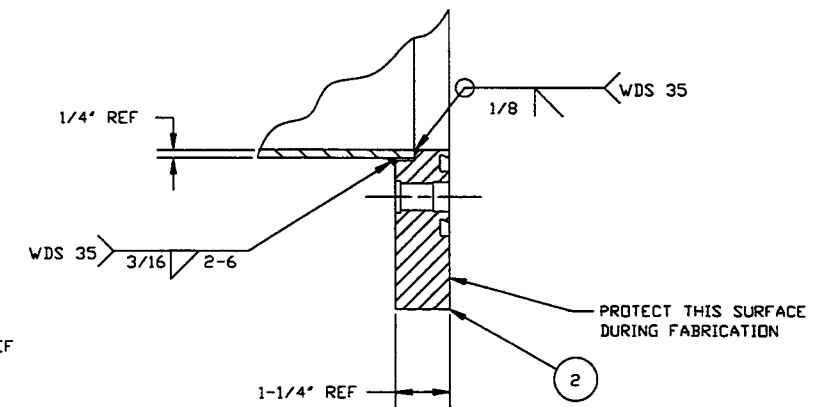
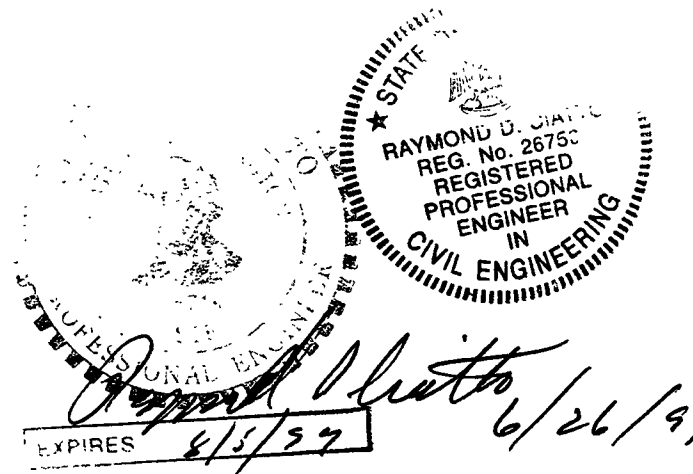
DETAIL "3"
 QTY: 6



DETAIL "1"
 MAKE FROM V049M19B-1



DETAIL "4"



DETAIL "5"

PROCESS SYSTEMS INTERNATIONAL INC. 20 WALKUP DR. WESTBOROUGH, MASSACHUSETTS 01581 USA			
ADAPTER A-2 48.25" ID x 72.25" ID LIGO VACUUM EQUIPMENT			
CAD FILE 4A2SE	SIZE D	ENG. NO. V049-4-A2	REV. 3
SCALE AS NOTED	SHEET 1	2 OF 2	

JUN 26 1997 - 151023