

MARK	QTY	SIZE	RATING	TYPE	DESCRIPTION
A	2	44.63" I.D.		SEE NOTE #1	LASER BEAM / ACCESS
B	1	10" O.D. TUBE		12" O.D. CONFLAT W/BLIND FLANGE	PUMPOUT PORT
C	1	1/2" X 2'		VAC. JACKET W/ BAYONET BLIND	LN2 INLET
D	1	1 1/2" PIPE		1 1/2" ASA FLG. 5" O.D.	GN2 VENT
E	1	2" O.D. PIPE		PANT LEG	SEE L1 & L2
F	1	1 1/2" PIPE		1 1/2" ASA FLG. 5" O.D.	REGEN-GN2
I	1	1 1/2" O.D. TUBE		2 3/4" O.D. CONFLAT W/BLIND FLANGE	VACUUM GAUGE PAIR
J	1	1 1/2" O.D. TUBE		2 3/4" O.D. CONFLAT W/BLIND FLANGE	PURGE AIR
H	1	2 1/2" O.D. TUBE		1 1/2" O.D. CONFLAT W/BLIND FLANGE	RUPTURE DISC.
K	2	3/4" O.D. TUBE		2 3/4" O.D. CONFLAT	FLANGE ANNULUS PUMPOUT PORT

RAYMOND D. CIATTIO
REGISTERED PROFESSIONAL ENGINEER
NO. 15714
STATE OF WASHINGTON

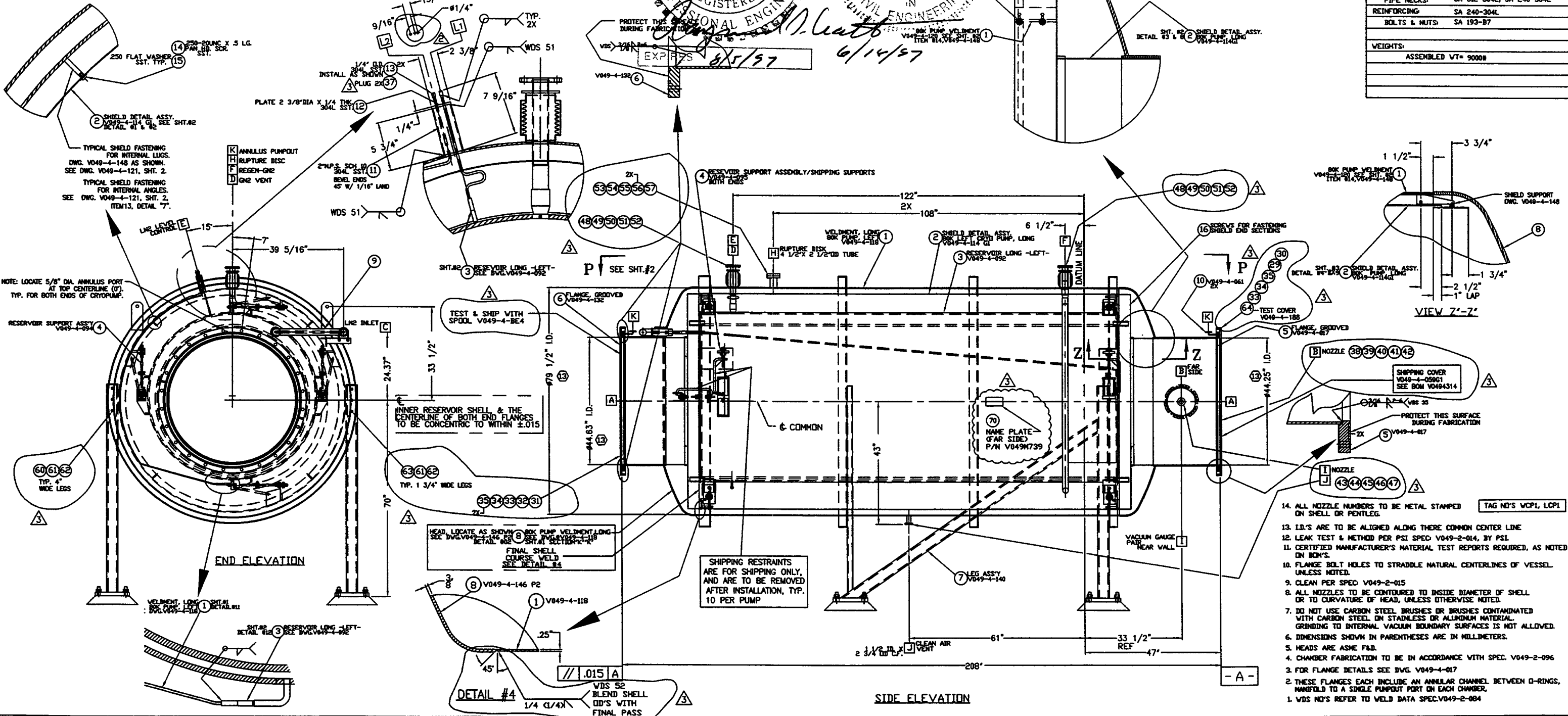
RAYMOND D. CIATTIO
REGISTERED PROFESSIONAL ENGINEER
NO. 2777
STATE OF LOUISIANA

PROTECT THIS SURFACE DURING FABRICATION

EXP. 8/5/97

6/14/97

DESIGN DATA	
CORROSION ALLOWANCE:	0
POSTWELD HEAT TREATMENT:	MBS
FIREPROOFING:	NA
RADIOPHOTOGRAPHING:	NONE
MATERIALS	
HEADS:	SA 240-304L
SHELL:	SA 240-304, 304L
FLANGES:	SA 182 GRADE F, 304L
PIPE NECKS:	SA 312-304L; SA 240-304L
REINFORCING:	SA 240-304L
BOLTS & NUTS:	SA 193-B7
WEIGHTS:	
ASSEMBLED WT=	9000#



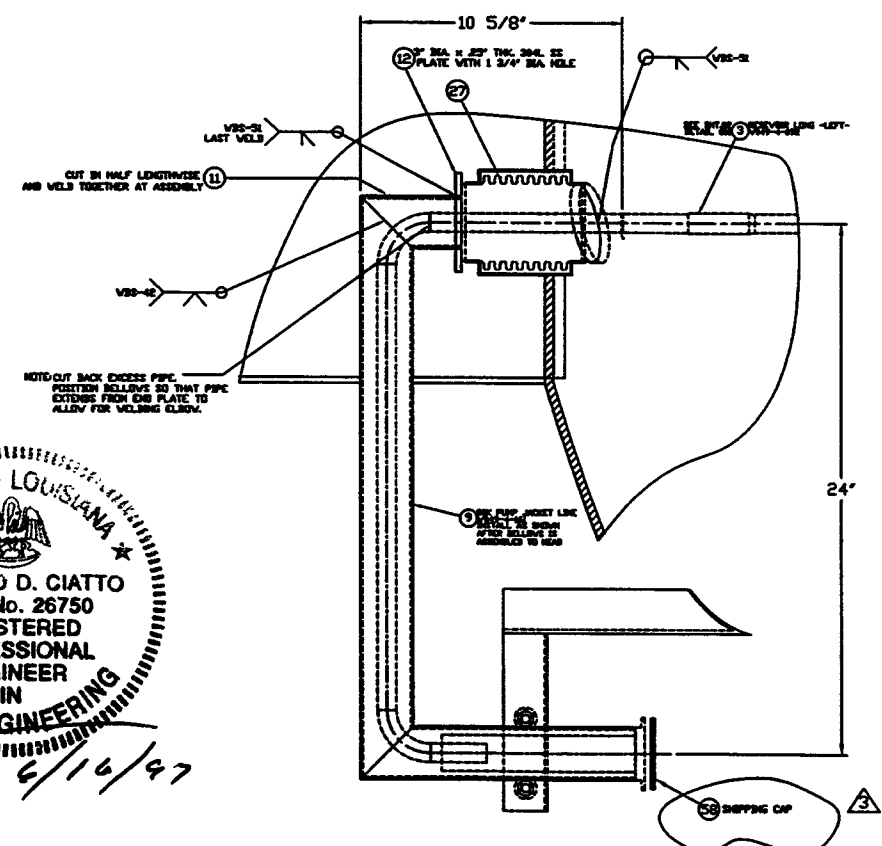
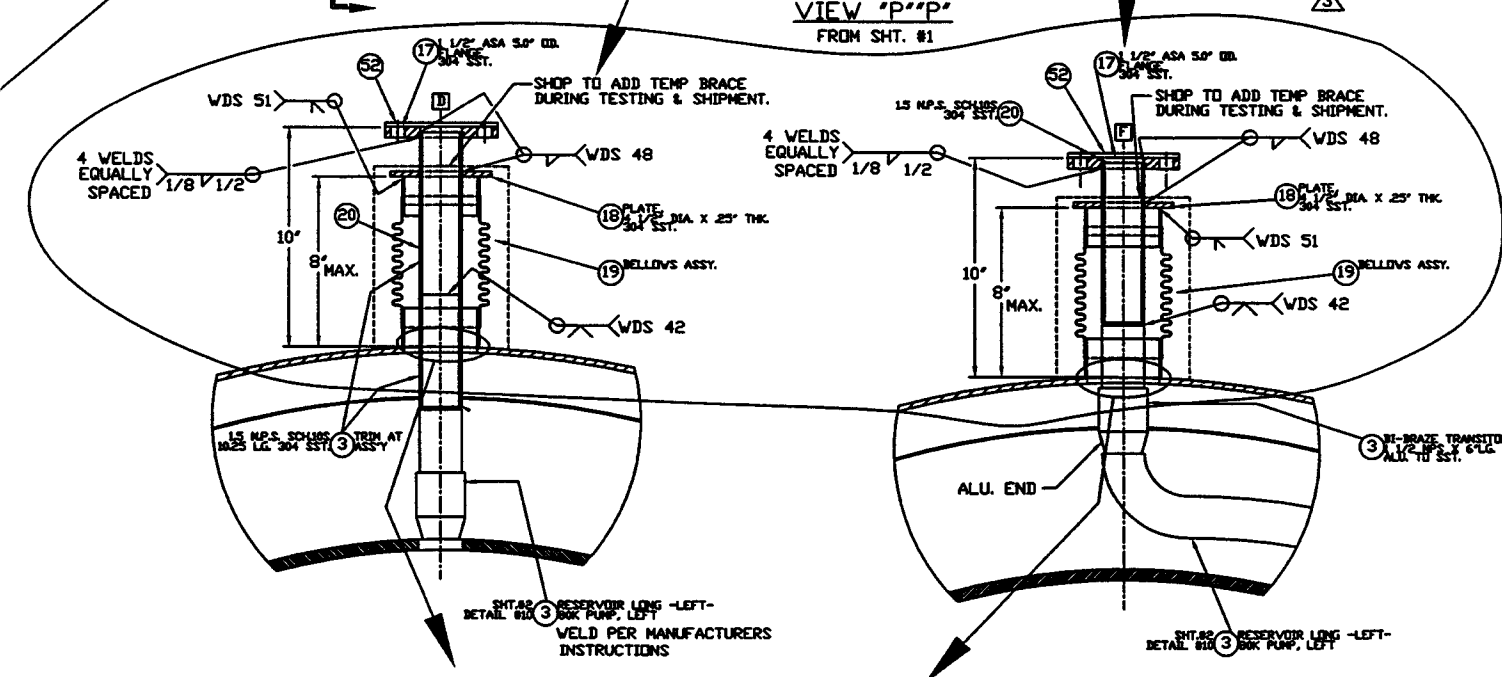
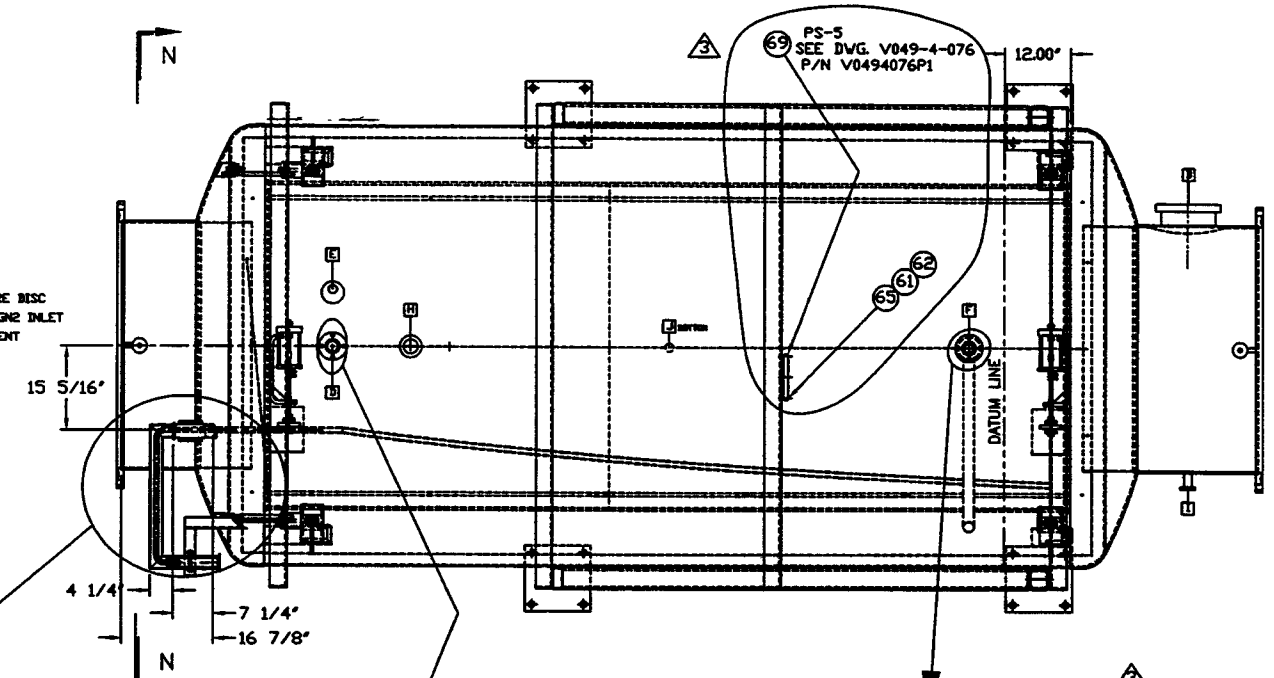
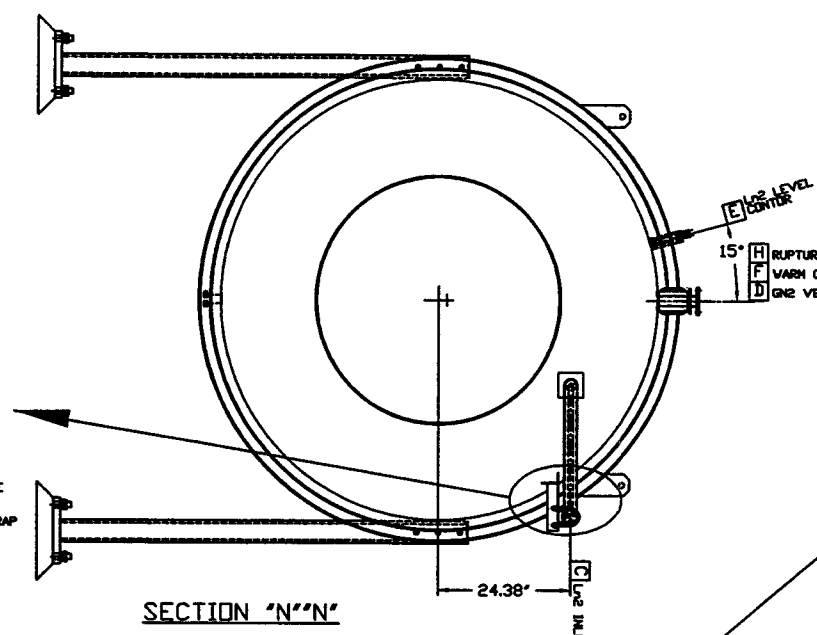
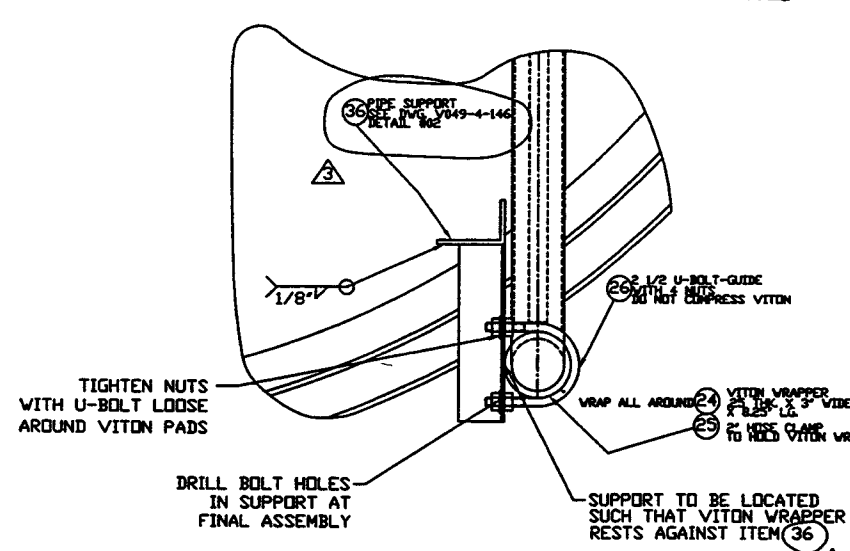
PROPRIETARY AND CONFIDENTIAL	DWG. NO.	DESCRIPTION	REFERENCE DRAWINGS	SYMBOL	CHARACTERISTIC	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES FRACTIONAL ± .01 ANGULAR ± .5° SURFACE FINISH UNLESS OTHERWISE SPECIFIED	REV	DESCRIPTION	ISSUE DESCRIPTION	SCALE	SHEET	DATE	BY	CHKD	DRWN	DATE	DESD
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 BY 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.	V049-0-100	DRAWING TREE/BOM/STRUCTURE		□	FLATNESS		3	REVISED FOR FABRICATION AS NOTED			1	12/30/96	0346				
	V049-4-140	SUPPORT LEG ASSY.		○	CYLINDRICITY		2	REVISED FOR FABRICATION AS NOTED			2	1/17/97	0400				
	V049-4-114 GI	SHIELD ASSY.		∥	PARALLELISM		1	ISSUED FOR FABRICATION/FDR UPDATE - MAJOR REVISIONS			1	7/2/96	0144				
	V049-4-095	RESERVOIR SUPPORTS		⊥	PERPENDICULARITY		0	ISSUED FOR FDR									
	V049-4-118	VESSEL WELDMENT		∠	ANGULARITY												
V049-4-092	80K PUMP RESERVOIR		⊕	TRUE POSITION													
				⊙	CONCENTRICITY												

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

80K PUMP GENERAL ARRGT-LONG-LEFT

LIGO VACUUM EQUIPMENT

GAS FILE: 494004S1
REV: 3
V049-4-004
SCALE: NONE
SHEET: 1 OF 2



RAYMOND D. CIATTO
 STATE OF WASHINGTON
 REGISTERED ENGINEER
 15714
 EXPIRES 8/5/97

STATE OF LOUISIANA
 RAYMOND D. CIATTO
 REG. No. 26750
 REGISTERED PROFESSIONAL ENGINEER
 IN CIVIL ENGINEERING
 6/16/97

SEE SHEET 1 FOR REVISIONS

PROCESS SYSTEMS INTERNATIONAL, INC. 20 WALKUP DR. WESTBOROUGH, MASSACHUSETTS 01581 USA			
80K PUMP GENERAL ARR'G-LONG-LEFT			
LIGD VACUUM EQUIPMENT			
CAD FILE 494004S2	SIZE D	DWG. NO. V049-4-004	REV. 3
SCALE NONE	SHEET 2 OF 2		

JUN 24, 1997 - 154902