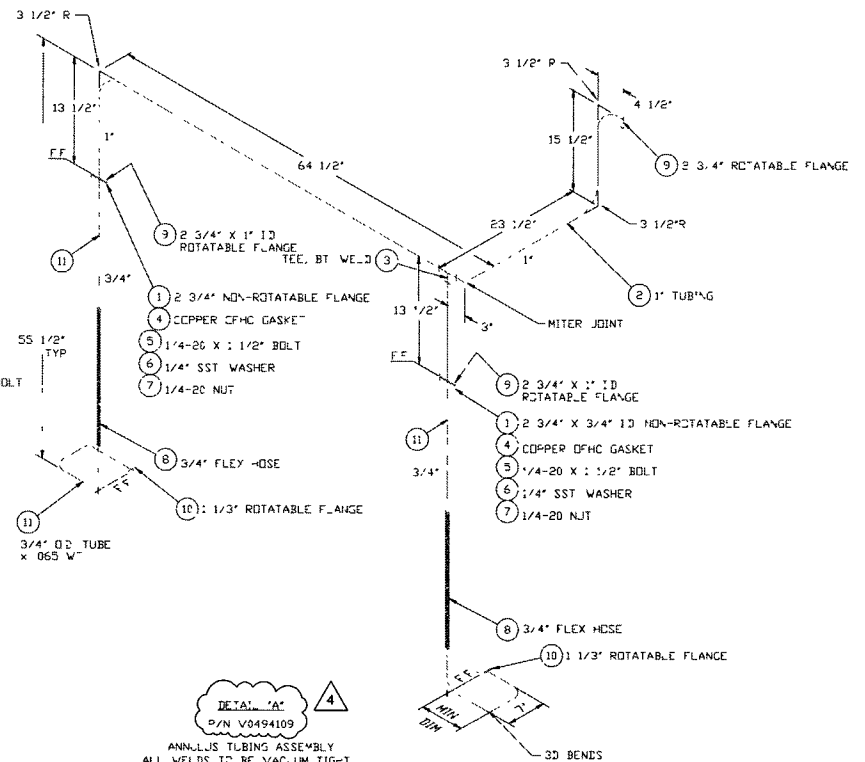
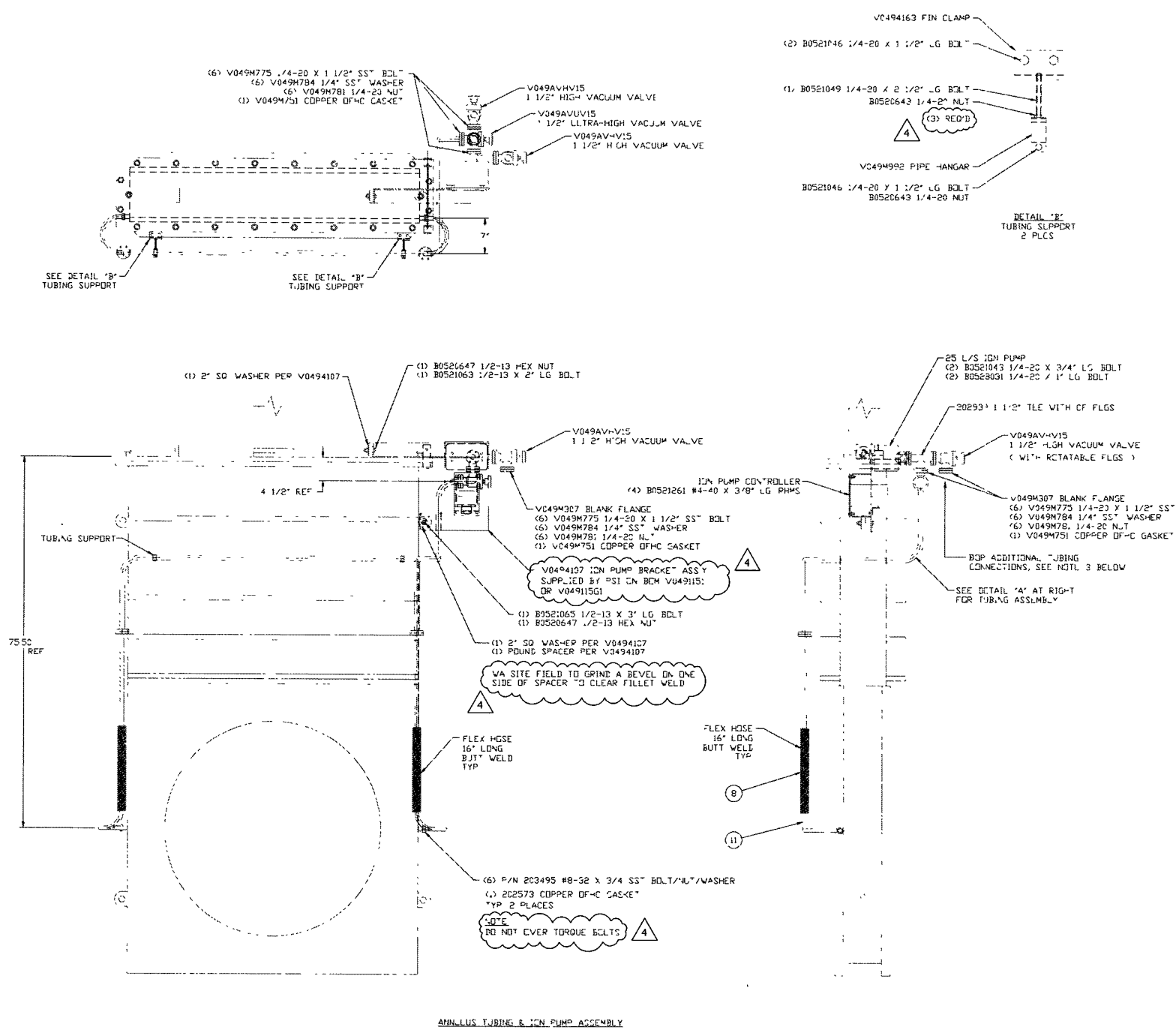


ELECTRONIC COPY



NOTE ALL PARTS SHOWN IN DETAIL 'A' ARE LISTED ON BOM V0494109
 BOM V0494109 IS INCLUDED IN BOM V0491151 (ITEM 25) BY PSI. BOM IS EXCLUDED FROM BOM V0491151 WHERE THE SPOOL IS SUPPLIED BY THE SITE CONTRACTOR
 PSI SUPPLIES (8) PREWELDED SPOOLS TO WASHINGTON, FOR LIGC)
 AND (4) PREWELDED SPOOLS TO LOUISIANA FOR LIGC)
 ALL REMAINING TUBING MATERIALS AND INSTALLATIONS ARE BY THE PSI SITE CONTRACTOR

NOTES:

- FOR MOUNTING / ORIENTATION OF ASSEMBLY ON GATE VALVE, SEE APPLICABLE BUILDING EQUIPMENT LOCATION DRAWING REFER TO SITE INSTALLATION DRAWING LIST DWG V049-0-000, AND SITE DRAWING TREE / BOM STRUCTURE, DWG V049-0-100
- TABLE OF MATERIALS SHIPPED BY PSI

SITE	BILL OF MATERIAL	QTY.	INSTALLER
WASHINGTON	V0491151 (WITH DETAIL 'A' SPOOL)	8	LIGC
WASHINGTON	V0491151 (WITHOUT DETAIL 'A' SPOOL)	8	PSI CONTRACTOR
LOUISIANA	V0491151 (WITH DETAIL 'A' SPOOL)	4	LIGC
LOUISIANA	V0491151 (WITHOUT DETAIL 'A' SPOOL)	4	PSI CONTRACTOR

3 THE ABOVE ASSEMBLIES ARE ALSO TO BE INSTALLED WITH THE FOLLOWING DRAWINGS, BY THE SITE CONTRACTOR
 ANNULUS TUBING - TYPE I DWG CV049-4-164
 TYPE II DWG CV049-4-166
 TYPE III DWG CV049-4-106

PROPRIETARY AND CONFIDENTIAL		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	
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. NOW 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.		TOLERANCES: FRACTIONAL & ANGULAR: MINUS .003" BEND ±.02" TWO PLACE DECIMAL ± .01 THREE PLACE DECIMAL ± .005 FINISHED SURFACE RMS BREAK CORNERS IN REMOVE ALL BURRS	
DWG NO	DESCRIPTION	DWG NO.	DESCRIPTION
V049-0-100	DRAWING TREE / BOM STRUCTURE	V049-2-021	SPEC INSTALLATION / COMMISSIONING
REFERENCE DRAWINGS		NEXT ASSY	
8	7	6	5

4	REISSUED FOR FABRICATION AS NOTED	LD	11/21/97	0560
3	REISSUED FOR FABRICATION AS NOTED	GS	PEF	REC REC 06/06/97 0490
2	REISSUED FOR FABRICATION PER RFC V049-042	RDC	PEF	DnW REC PV 2/26/97 0439
1	ISSUED FOR FABRICATION	RDC	PEF	DnW REC BAR 1/17/97 0415
0	ISSUED FOR RELEASE/BIDS	PEF	DnW	REC BAR 11/21/96 0358
USED ON	REV	DESCRIPTION	CHKD	DRWN
DATE	REV	DESCRIPTION	DATE	DESN

LIGO-D970416-04-V

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

ANNULUS TUBING & ION PUMP ASSY
44" GATE VALVE

LIGO VACUUM EQUIPMENT

CAD FILE	SIZE	DWG NO.	REV
V0494109	D	V049-4-109	4
SCALE	1/12	SHEET	1 OF 1

EDUCATION VERSION - NOT FOR COMMERCIAL USE