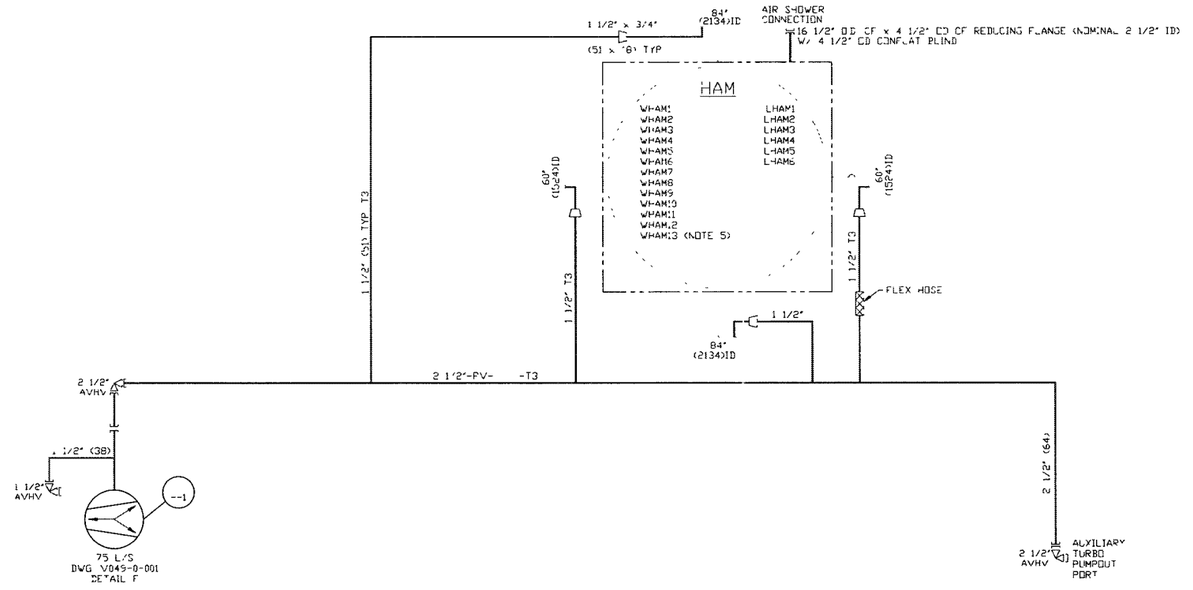
TABLE 1

CHAMBER	ION PUMP CONTROL	VACUUM LINE
WHAM1	115	2 1/2"-PV-1101-T3
WHAM2	117	2 1/2"-PV-1102-T3
WHAM3	125	2 1/2"-PV-1103-T3
WHAM4	127	2 1/2"-PV-1104-T3
WHAM5	135	2 1/2"-PV-1105-T3
WHAM6	137	2 1/2"-PV-1106-T3
WHAM7	185	2 1/2"-PV-1107-T3
WHAM8	187	2 1/2"-PV-1108-T3
WHAM9	191	2 1/2"-PV-1109-T3
WHAM10	193	2 1/2"-PV-1110-T3
WHAM11	195	2 1/2"-PV-1111-T3
WHAM12	197	2 1/2"-PV-1112-T3
WHAM13	-	-
LHAM1	615	2 1/2"-PV-672-T3
LHAM2	617	2 1/2"-PV-673-T3
LHAM3	625	2 1/2"-PV-674-T3
LHAM4	627	2 1/2"-PV-675-T3
LHAM5	635	2 1/2"-PV-676-T3
LHAM6	637	2 1/2"-PV-677-T3

NOTES

1. EACH PUMPOUT PORT LOCATION HAS BOTH POWER & CONTROL PLUG-IN CONNECTIONS
2. ALL VACUUM GAUGES TO BE BAKED OUT AT 250 C DURING PUMPDOWN, USING A REMOVABLE BLANKET TYPE HEATER. ALL VACUUM SECTIONS SHALL ALSO BE BAKED OUT AT 150 C DURING PUMPDOWN USING A REMOVABLE BLANKET TYPE HEATER. SEE DWG V049-0-042 FOR BAKEOUT SYSTEM
3. DIMENSIONS IN ( ) ARE IN MILLIMETERS
4. SEE TABLE 1 FOR INSTRUMENT TAG NUMBERS, AND PIPING LINE NUMBERS
5. WHAM13 IS A SPARE CHAMBER WITH ANNULUS MANIFOLDING AND WITHOUT VALVES AND PUMPS



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DWG NO	DESCRIPTION	DWG NO	DESCRIPTION
V049-0-001	P & ID LEGEND		

REFERENCE DRAWINGS

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES
FRACTIONAL ±
ANGULARMACH ±0°-30' BEND ±2°
TWO PLACE DECIMAL ± .01
THREE PLACE DECIMAL ± .005
FINISHED SURFACE RMS
BREAK CORNERS ON EDGES
REMOVE ALL BURRS

DO NOT SCALE THIS DRAWING

USED ON:

NEXT ASS'Y:

REV	DESCRIPTION						CHKD	DRWN	DATE	DEO#
4	AS-BUILT						LD	08 25 98	0628
3	REVISED				SM	DMcW	RJW	02 14 97	0435
2	ISSUE FOR FDR UPDATE		TS	RT	SM	DMcW	RJW	10 25 96	0309
1	ISSUE FOR FDR	REB	TS	RT	SM	DMcW	RJW	04 26 96	0134
0	ISSUE FOR DESIGN	REB	TS	RT	SM	DMcW	RJW	01 03 96	0031
P2	REVISED	REB					RJW	10 02 95	0003

ISSUE DESCRIPTION

PROCESS SYSTEMS INTERNATIONAL, INC.
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PIPING & INSTRUMENTATION DIAGRAM
LIGO VACUUM EQUIPMENT
HORIZONTAL ACCESS MODULE (HAM)

CAD FILE	SIZE	DWG NO	REV
V0490004	D	V049-0-004	4
SCALE NONE		SHEET 1 OF 1	

8 7 6 5 4 3 2 1