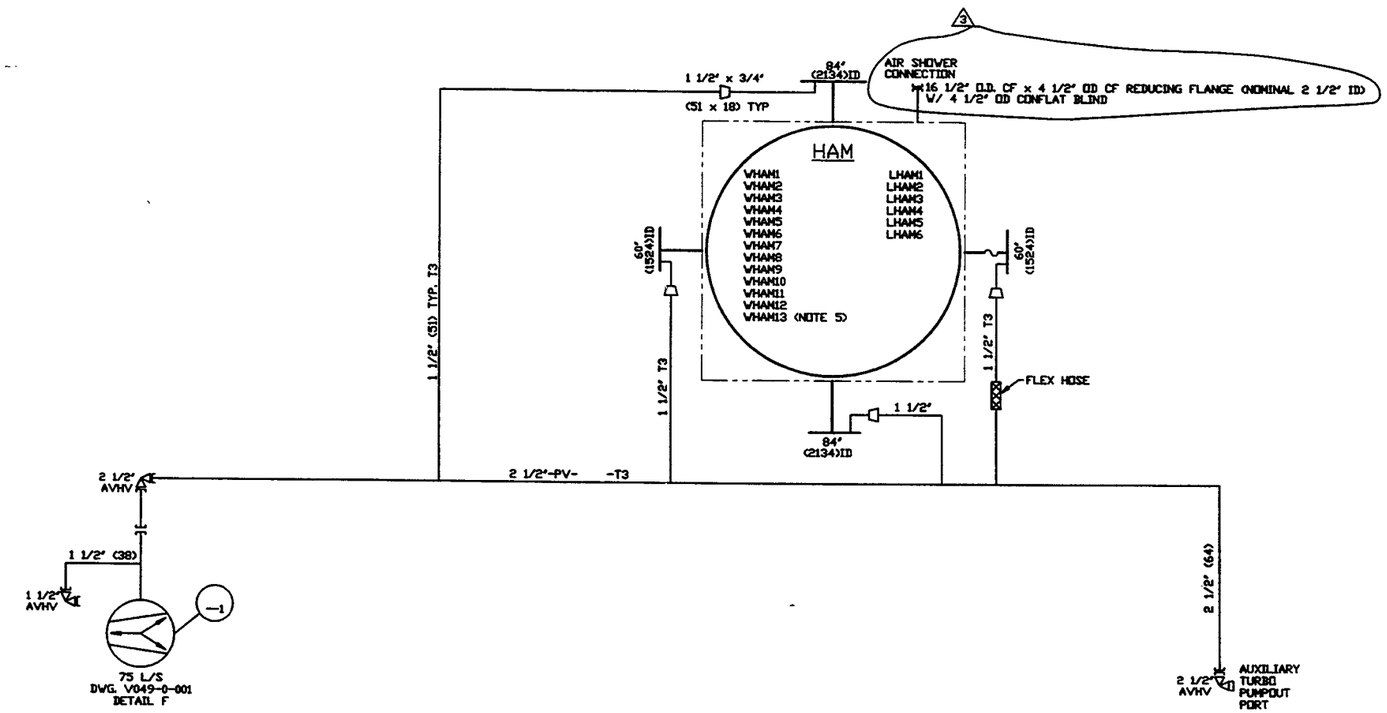
TABLE 1

CHAMBER	ION PUMP CONTROL	FLEX HOSE (45°)	VACUUM LINE
VHAM1	115	-	2 1/2"-PV-1101-T3
VHAM2	117	-	2 1/2"-PV-1102-T3
VHAM3	125	SM 105	2 1/2"-PV-1103-T3
VHAM4	127	SM 106	2 1/2"-PV-1104-T3
VHAM5	135	-	2 1/2"-PV-1105-T3
VHAM6	137	-	2 1/2"-PV-1106-T3
VHAM7	185	-	2 1/2"-PV-1107-T3
VHAM8	187	-	2 1/2"-PV-1108-T3
VHAM9	191	SM 107	2 1/2"-PV-1109-T3
VHAM10	193	SM 108	2 1/2"-PV-1110-T3
VHAM11	195	-	2 1/2"-PV-1111-T3
VHAM12	197	-	2 1/2"-PV-1112-T3
VHAM13	-	-	-
LHAM1	615	-	2 1/2"-PV-672-T3
LHAM2	617	-	2 1/2"-PV-673-T3
LHAM3	625	SM 602	2 1/2"-PV-674-T3
LHAM4	627	SM 603	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. V049-0-043 FOR BAKEOUT SYSTEM.
3. DIMENSIONS IN ( ) ARE IN MILLIMETERS.
4. SEE TABLE 1 FOR INSTRUMENT TAG NUMBERS, SPECIAL MATERIAL IDENTIFICATION NUMBERS AND PIPING LINE NUMBERS.
5. VHAM13 IS A SPARE CHAMBER WITH ANNULUS MANIFOLDING AND WITHOUT VALVES AND PUMPS.



LIGO-D961072-03-V

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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 ±
ANGULARITY 30'-00" BEND ±2°
TWO PLACE DECIMAL ± .01
THREE PLACE DECIMAL ± .005
FINISHED SURFACE RMS
BREAK CORNERS .03
REMOVE ALL BURRS

DO NOT SCALE THIS DRAWING

USED ON

NEXT ASS'Y

REV	DESCRIPTION	CHKD	DRWN	DATE	DEDN
3	REVISED			02.14.97	0435
2	ISSUE FOR FDR UPDATE	SM	DMcV	RJV	10.23.96	0309
1	ISSUE FOR FDR	SM	DMcV	RJV	04.26.96	0134
0	ISSUE FOR DESIGN	SM	DMcV	RJV	01.03.96	0031
P2	REVISED			RJV	10.02.95	0003
P1	PRELIMINARY DESIGN UPDATE			KY	09.26.95	-

ISSUE DESCRIPTION

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

PIPING & INSTRUMENTATION DIAGRAM
LIGO VACUUM EQUIPMENT
HORIZONTAL ACCESS MODULE (HAM)

CAD FILE	SIZE	DWG. NO.	REV.
V0490004	D	V049-0-004	3

SCALE NONE SHEET 1 OF 1