



- NOTES:**
1. EACH PUMP/OUT 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 BAKEDOUT SYSTEM.
 3. DIMENSIONS IN () ARE IN MILLIMETERS.
 4. BEAM MANIFOLD DIMENSIONS INDICATE INSIDE DIAMETERS.
 5. ATMOSPHERIC AIR INTAKE SHALL BE LOCATED AWAY FROM SOURCES OF CONTAMINATION.
 6. BEAM MANIFOLD FLANGE ANNULUS ION PUMP DETAILS LATER.
 7. ON 12" O.D. CF BLIND, PROVIDE 3" LONG 2 3/4" O.D. CF x 1 1/2" O.D. NOZZLE AND 2 3/4" CF. BLIND FOR RGA CONNECTION.

PROPRIETARY AND CONFIDENTIAL	REFERENCE DRAWINGS		EQUIP. THIS DWG.	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	REV	DESCRIPTION	ISSUE DESCRIPTION	CHKD	DRWN	DATE	DCDR			
IT CONTAINS PROPRIETARY INFORMATION BELONGING TO PROCESS SYSTEMS INTERNATIONAL, INC. OR ITS COMPANIES AND SHALL BE KEPT SECRET FOR THE PURPOSE FOR WHICH IT WAS SUPPLIED. IT SHALL NOT BE COPIED, REPRODUCED OR OTHERWISE USED, FOR 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.	V049-0-041	P & ID TURBO PUMP CART	LBSCS	TELEVISIONS	4	REVISED		SM	JML	02.14.97	0435			
	V049-0-021	P & ID LEFT & RIGHT MID JOINTS	LIPS	FRACTIONAL & ANGULAR APPROX 30°-30° BOND 45° TWO PLACE DECIMAL & 3/16 THREE PLACE DECIMAL & .005 FINISHED SURFACE FIN BREAK CORNERS TO REMOVE ALL BURRS	3	REVISED		SM	DMC	RJV	01.03.97	0394		
	V049-0-006	P & ID 80K CRYOPUMP	LTC3	DO NOT SCALE THIS DRAWING	2	ISSUE FOR FDR UPDATE		TS	RT	SM	DMC	RJV	10.25.96	0309
	V049-0-002	P & ID BEAM SPLITTER CHAMBER		USED ON:	1	ISSUE FOR FDR	REB	TS	RT	SM	DMC	RJV	04.26.96	0134
	V049-0-001	P & ID LEGEND		NEXT ASS'Y:	0	ISSUE FOR DESIGN	REB	TS	RT	SM	DMC	RJV	01.03.96	0031

D961084-04-V

PROCESS SYSTEMS INTERNATIONAL, INC.
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PIPING & INSTRUMENTATION DIAGRAM
 LIGO VACUUM EQUIPMENT
 LOUISIANA SITE
 LEFT END STATION

CAD FILE: V0490020 SIZE: D DWG NO: V049-0-020 REV: 4

SCALE: NONE SHEET: 1 OF 1