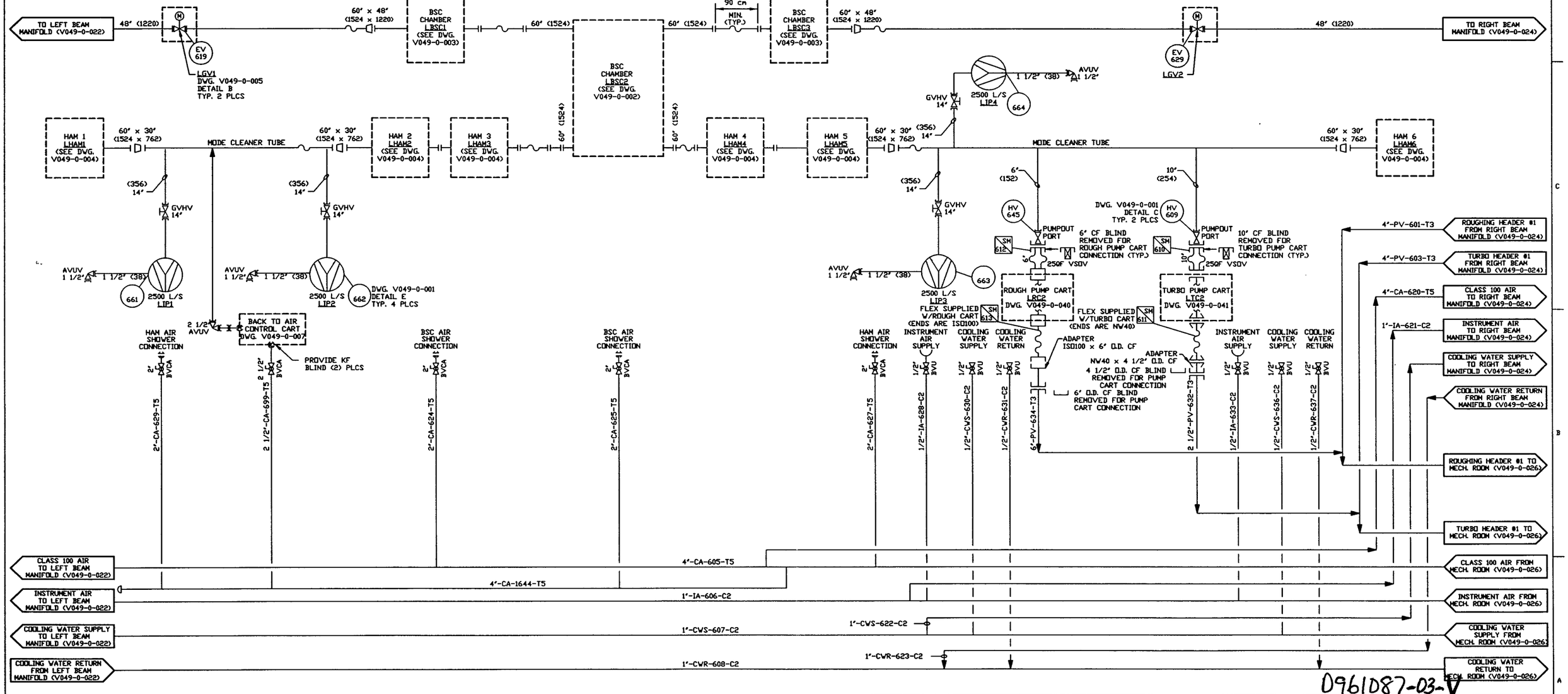
## NOTES:

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. BEAM MANIFOLD DIMENSIONS INDICATE INSIDE DIAMETERS.
5. BEAM MANIFOLD FLANGE ANNULUS ION PUMP DETAILS LATER.




D961087-03-V


ARY AND CONFIDENTIAL

T DNT CONTAINS PROPRIETARY N BELONGING TO PROCESS INTERNATIONAL, INC. OR ITS TED 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 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.


| DWG. NO. | DESCRIPTION | DWG. NO. | DESCRIPTION |
|---|---|---|---|
| V049-0-024 | P & ID RIGHT BEAM MANIFOLD | | |
| V049-0-022 | P & ID LEFT BEAM MANIFOLD | | |
| V049-0-004 | P & ID HORIZONTAL ACCESS MODULE | | |
| V049-0-003 | P & ID BEAM SPLITTER CHAMBER | V049-0-041 | P & ID TURBO PUMP CART |
| V049-0-002 | P & ID BEAM SPLITTER CHAMBER | V049-0-040 | P & ID MAIN ROUGHING PUMP CART |
| V049-0-001 | P & ID LEGEND | V049-0-026 | P & ID MECHANICAL ROOM |

REFERENCE DRAWINGS

EQUIP. THIS DWG.

| | |
|---|---|
| LGV1 | LBSC1 |
| LGV2 | LBSC2 |
| LHAM1 | LBSC3 |
| LHAM2 | LIP1 |
| LHAM3 | LIP2 |
| LHAM4 | LIP3 |
| LHAM5 | LIP4 |
| LHAM6 | LTC2 |
| | LRC2 |

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±
ANGULAR:MACH 30°-39' BEND ±2°
TWO PLACE DECIMAL ± .01
THREE PLACE DECIMAL ± .005
FINISHED SURFACE RMS
BREAK CORNERS .04 OUT-
REMOVE ALL BURRS

DO NOT SCALE THIS DRAWING

USED ON

NEXT ASS'Y

| REV | DESCRIPTION | | | | CHKD | DRWN | DATE | DCD# |
|---|---|---|---|---|---|---|---|---|
| 3 | REVISED (OVERALL GENERAL REVISION) | | | | SM | DMcW | RJV | 02.14.97 | 0435 |
| 2 | ISSUE FOR FDR UPDATE | | TS | RT | SM | DMcW | RJV | 10.25.96 | 0309 |
| 1 | ISSUE FOR FDR | REB | TS | RT | SM | DMcW | RJV | 04.26.96 | 0134 |
| 0 | ISSUE FOR DESIGN | REB | TS | RT | SM | DMcW | RJV | 01.03.96 | 0031 |

ISSUE DESCRIPTION


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


# PIPING & INSTRUMENTATION DIAGRAM
## LIGO VACUUM EQUIPMENT
## LOUISIANA SITE
## VERTEX SECTION

| CAD FILE | SIZE | DWG. NO. | REV. |
|---|---|---|---|
| V0490023 | D | V049-0-023 | 3 |

SCALE: NONE

SHEET: 1 OF 1