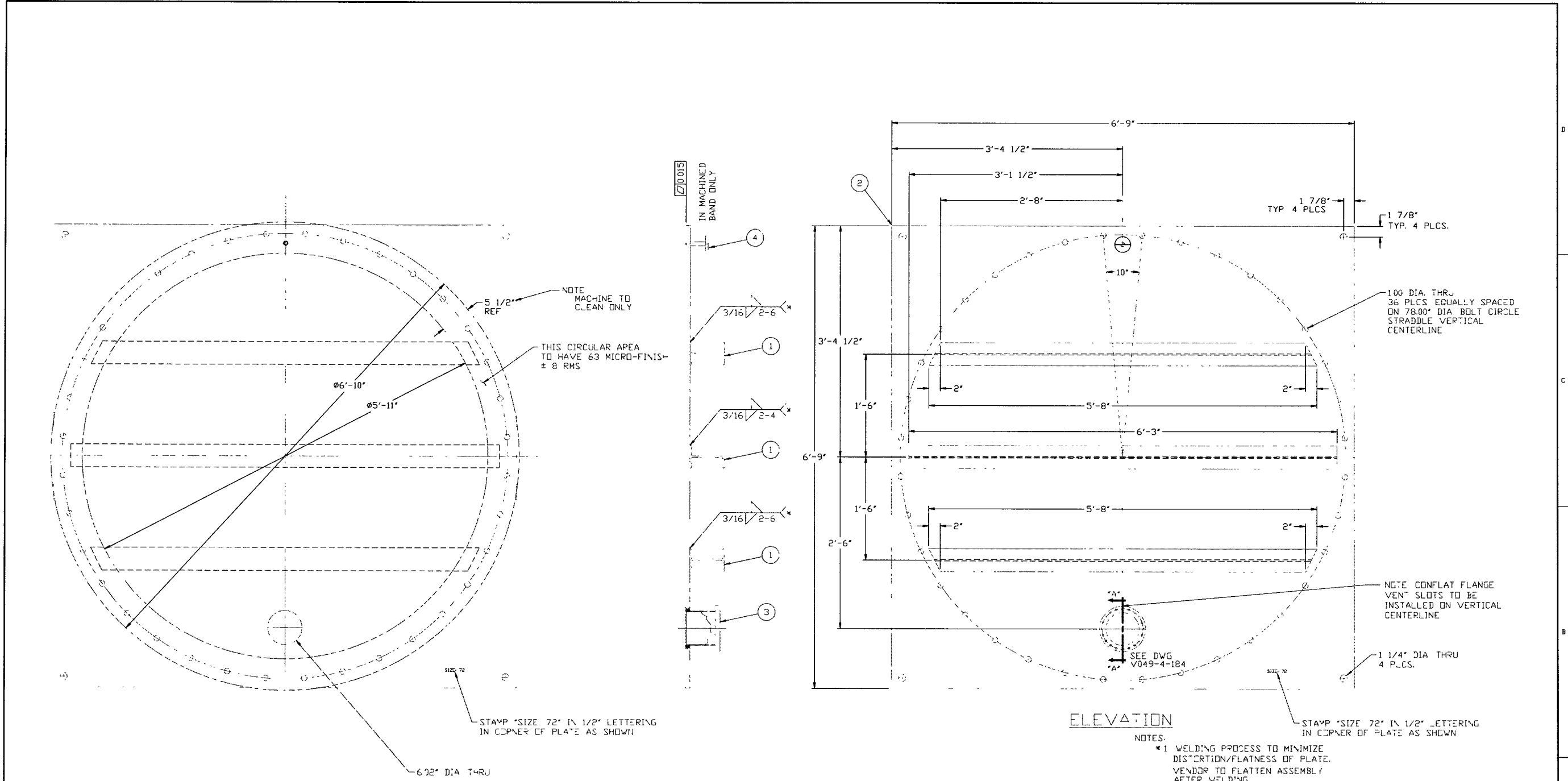


EDUCATION VERSION - NOT FOR COMMERCIAL USE



**ELEVATION**

- NOTES:  
 \*1 WELDING PROCESS TO MINIMIZE DISTORTION/FLATNESS OF PLATE. VENDOR TO FLATTEN ASSEMBLY AFTER WELDING  
 2 SEE SHEET #2 FOR GROOVE MACHINING DETAIL

**ELECTRONIC COPY**

ITEM	PART NUMBER	QTY	U/M	DESCRIPTION
4	304 S/S	1	EA	HALF NIPPLE, 3/4" OD TUBE X 2 3/4" OD CF
3	304 S/S	1	EA	HALF NIPPLE, 6" OD TUBE X 8" OD CF X 5" LG
2	4556 SF		SF	PLATE, 3/4" THK X 6'-9" SQ, 304 SST
1	17'-7"		FT	W/ BEAM, W/6 X 12, MAT'L A36

BILL OF MATERIALS

LIGO-D990306-01-V

DWG NO	DESCRIPTION	DWG NO	DESCRIPTION
8		7	
6		5	
4		3	
2		1	

REV	DESCRIPTION	CHKD	DRWN	DATE	DECD
1	ISSUED FOR FABRICATION		PV	2/7/97	0405
0	ISSUED FOR QUOTES		BAR	1/14/96	

UNLESS OTHERWISE SPECIFIED  
 DIMENSIONS ARE IN INCHES  
 TOLERANCES:  
 FRACTIONAL: ± .01  
 ANGULAR/RADIUS: 60°-30° BEND 1/2"  
 TWO PLACE DECIMAL: ± .01  
 THREE PLACE DECIMAL: ± .005  
 FINISHED SURFACE RMS  
 BREAK CORNERS IN  
 OUT.  
 REMOVE ALL BURRS

DO NOT SCALE THIS DRAWING

USED ON

NEXT ASS'Y

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

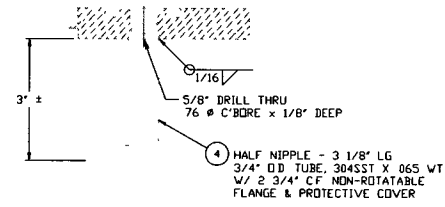
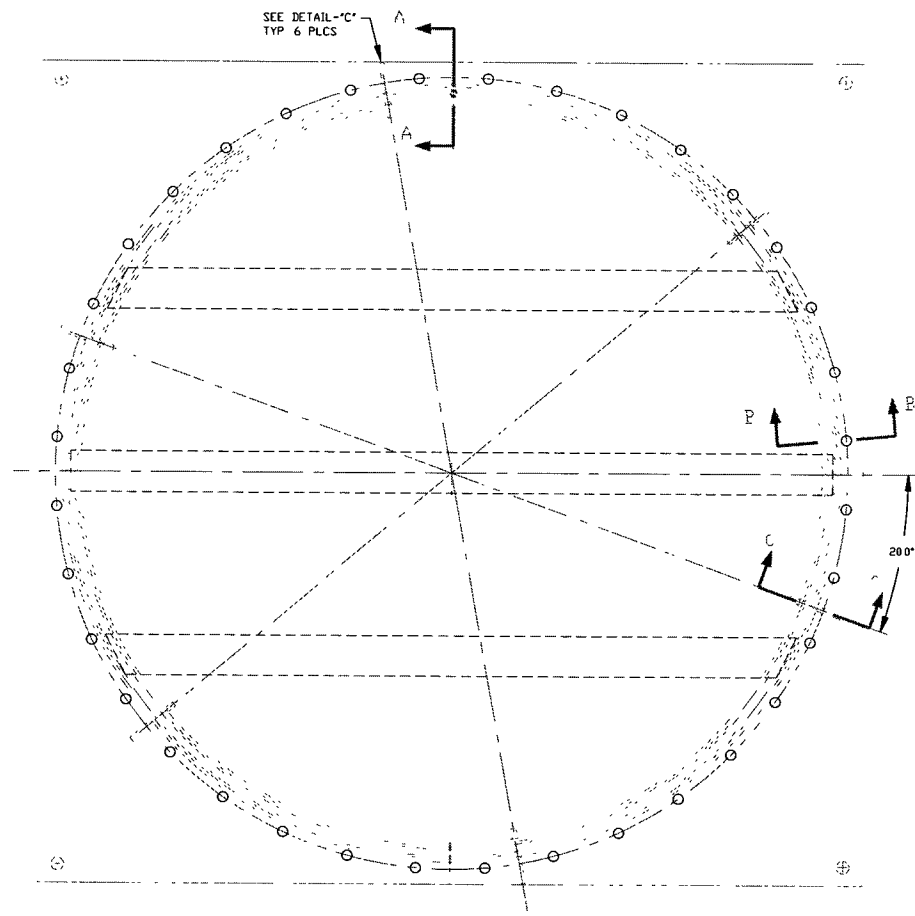
TESTING COVERS, 72" NOMINAL WITH O-RING GROOVES LIGO VACUUM EQUIPMENT

CAD FILE: V0494189  
 SIZE: D  
 DWG NO: V049-4-189  
 REV: 1

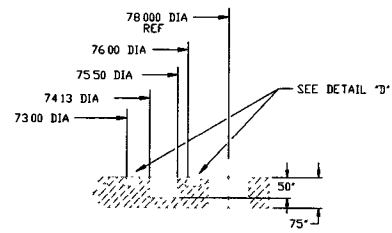
SCALE: 1/8" = 1'-0"  
 SHEET: 1 OF 2

P&O 08.1997 - 132927

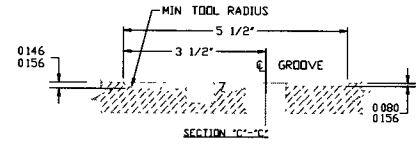
EDUCATION VERSION - NOT FOR COMMERCIAL USE



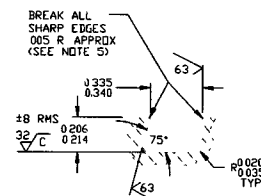
SECTION "A"- "A"



SECTION "B"- "B"



SECTION "C"- "C"



DETAIL "D"  
2 PLACES

- NOTE
- 1 FLANGES WILL BE USED IN ULTRA HIGH VACUUM SERVICE. SEE SPECIFICATION V049-2-040 FOR MATERIAL REQUIREMENTS. SEE SPECIFICATION V049-2-136 FOR MACHINING REQUIREMENTS.
  - 2 ALL MATERIAL TO BE 304L STAINLESS STEEL.
  - 3 FLANGES MUST BE PACKAGED, HANDLED, AND SHIPPED IN SUCH A MANNER AS TO MAINTAIN SPECIFIED SURFACE FINISHES AND FLATNESS TOLERANCES.
  - 4 MACHINE TOOL LAY TO BE CONCENTRIC ON ALL SURFACES THAT REQUIRE A 32 RMS FINISH.
  - 5 NO ABRASIVE STONES, CLOTHS OR GRINDING WHEELS MAY BE USED.
  - 6 NO OIL BASED OR HYDROCARBON BASED CUTTING FLUIDS TO BE USED.
  - 7 NO CARBON STEEL OR OTHER SOURCE OF IRON CONTAMINATION ARE TO COME IN CONTACT WITH FLANGES DURING MANUFACTURING OR HANDLING.
  - 8 FLANGE FINAL FACE CUTS AND O-RING GROOVES MUST BE MACHINED DURING THE SAME SETUP.
  - 9 STEAM CLEAN & WRAP IN POLYETHYLENE TO PREVENT CONTAMINATION DURING SHIPPING.

INNER O-RING 275 DIA STOCK x 227 3/4" LG P/N V049M021  
 OUTER O-RING 275 DIA STOCK x 237 1/8" LG P/N V049M020

**ELECTRONIC  
COPY**

SEE SHEET 1 FOR REVISIONS

<b>PROCESS SYSTEMS INTERNATIONAL INC.</b> 20 WALKUP DR WESTBOROUGH, MASSACHUSETTS 01581 USA			
<b>TESTING COVERS, 72" NOMINAL GROOVE MACHINING</b>			
<b>LIGO VACUUM EQUIPMENT</b>			
CAD FILE 4189S2	SIZE D	ENG. NO. V049-4-189	REV 1
SCALE 1/8"	SHEET 2 OF 2		

P&G 08-1997 - 094850