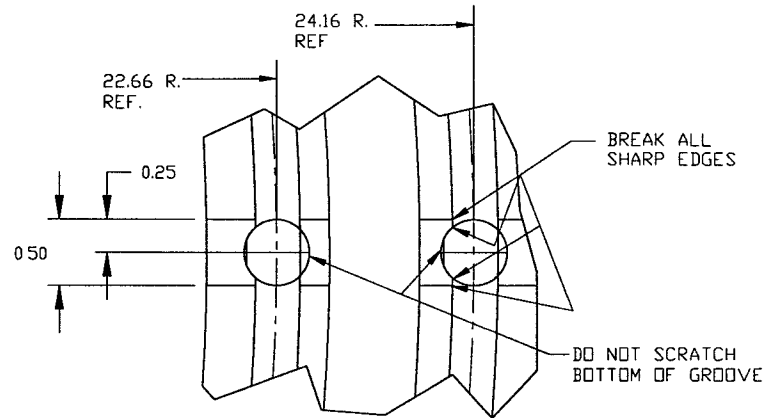
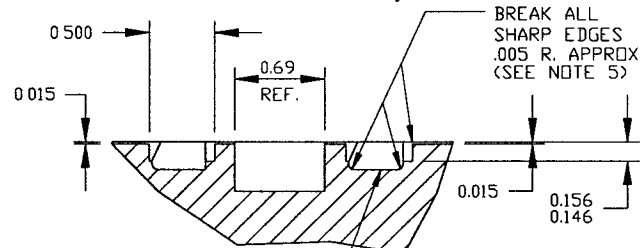


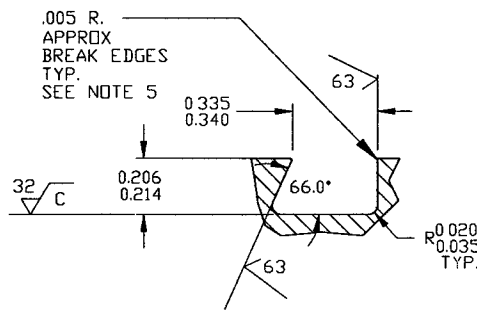
SCALE: 1 1/2 -1'-0



DETAIL C  
SCALE: FULL  
TYP. 2 PLACES @ 180°

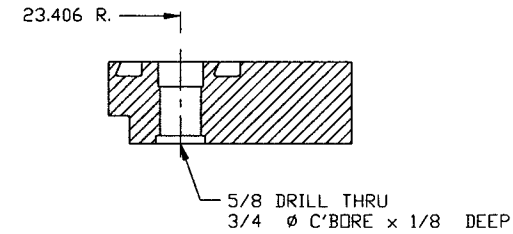


DETAIL D  
2 PLACES  
SCALE: 2x

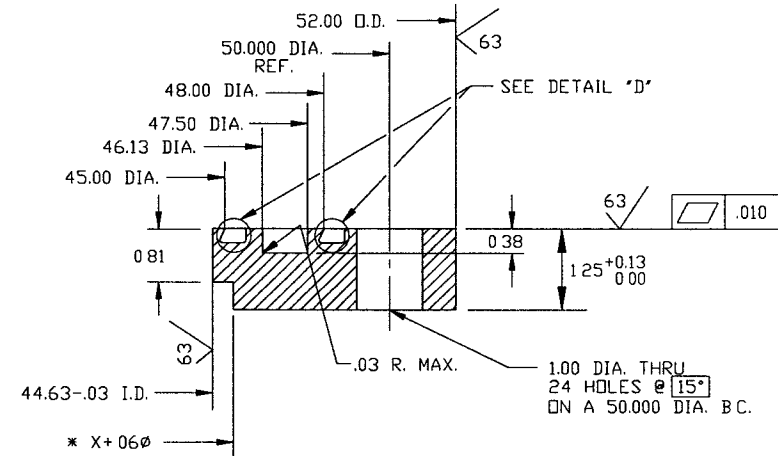


DETAIL E  
2 PLACES  
SCALE: 2x

- NOTE:
- 1: FLANGES WILL BE USED IN ULTRA HIGH VACUUM SERVICE SEE SPECIFICATION V049-2-040 FOR MATERIAL 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.



SECTION A - A  
2 PLACES @ 180°  
SCALE: HALF



SECTION B - B  
SCALE: HALF

\* X=PORT/PIPE O.D. +.13

**NOT FOR CONSTRUCTION**

*Raymond S. Leath, P.E.*  
5/6/96 LIGO D961101-00-V

INNER O-RING .275 DIA. STOCK x 140 3/4' LG. VULCANIZED - BAKED VITON E-60C  
OUTER O-RING .275 DIA. STOCK x 150' LG. VULCANIZED - BAKED VITON E-60C

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UNLESS OTHERWISE SPECIFIED  
DIMENSIONS ARE IN INCHES  
TOLERANCES:  
FRACTIONAL ± 1/16  
ANGULAR ± 0°-30' BEND ± 2°  
TWO PLACE DECIMAL ± .010  
THREE PLACE DECIMAL ± .005  
FINISHED SURFACE RMS 63  
BREAK CORNERS .125 ± .005  
REMOVE ALL BURRS

| REV | DESCRIPTION    | CHKD | DRAWN  | DATE     | DEO  |
|-----|----------------|------|--------|----------|------|
| 0   | ISSUED FOR FDR |      | Dhanes | 04/30/96 | 0150 |
| P3  | PRELIMINARY    |      |        | 12/28/95 |      |
| P2  | PRELIMINARY    |      |        | 12/5/95  |      |
| P1  | PRELIMINARY    |      |        | 10-24-95 |      |

|   |                 |                        |          |
|---|-----------------|------------------------|----------|
| PROCESS SYSTEMS INTERNATIONAL INC.<br>20 WALKUP DR WESTBOROUGH, MASSACHUSETTS 01581 USA |                 |                        |          |
| 44 5/8" I.D. FLANGE DETAIL<br>(GROOVED)<br>LIGO VACUUM EQUIPMENT                        |                 |                        |          |
| CAD FILE<br>V0494017  | SIZE<br>C       | DWG. NO.<br>V049-4-017 | REV<br>0 |
| SCALE<br>AS NOTED   | SHEET<br>1 OF 1 |                        |          |

10/02/1995 - 09:35:21