



- 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.

THIS FLANGE TO BE MADE FROM P/N V049M003-1  
WEIGHT: 484#

INNER O-RING .275 DIA. STOCK x 328 1/8" LG. VULCANIZED - BAKED VITON E-60C  
OUTER O-RING .275 DIA. STOCK x 337 1/2" LG. VULCANIZED - BAKED VITON E-60C

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| DWG. NO. | DESCRIPTION        | USED ON:    |
|----------|--------------------|-------------|
|          | REFERENCE DRAWINGS | NEXT ASS'Y: |

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

| REV. | DESCRIPTION                             | ISSUE DESCRIPTION | CHKD | DRAWN | DATE | DEO |
|------|---|-------------------|------|-------|------|-----|
| 5    | REISSUED FOR FABRICATION                |                   |      |       |      |     |
| 4    | REISSUED FOR FABRICATION                |                   |      |       |      |     |
| 3    | ISSUED FOR FABRICATION                  |                   | PEF  | RDC   | REB  | REC |
| 2    | AS NOTED                                |                   | PEF  | RDC   |      | REC |
| 1    | REVISED AS NOTED - DELETED 2 PORT HOLES |                   | PEF  | RDC   |      | REC |
| 0    | ISSUED FOR FDR                          |                   |      | RDC   | DMW  | REC |

PROCESS SYSTEMS INTERNATIONAL, INC.  
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104 1/2" I.D. FLANGE DETAIL  
(BSC) GROOVED  
LIGO VACUUM EQUIPMENT

|          |      |            |      |
|----------|------|------------|------|
| CAD FILE | SIZE | DWG. NO.   | REV. |
| V0494022 | C    | V049-4-022 | 5    |

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

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