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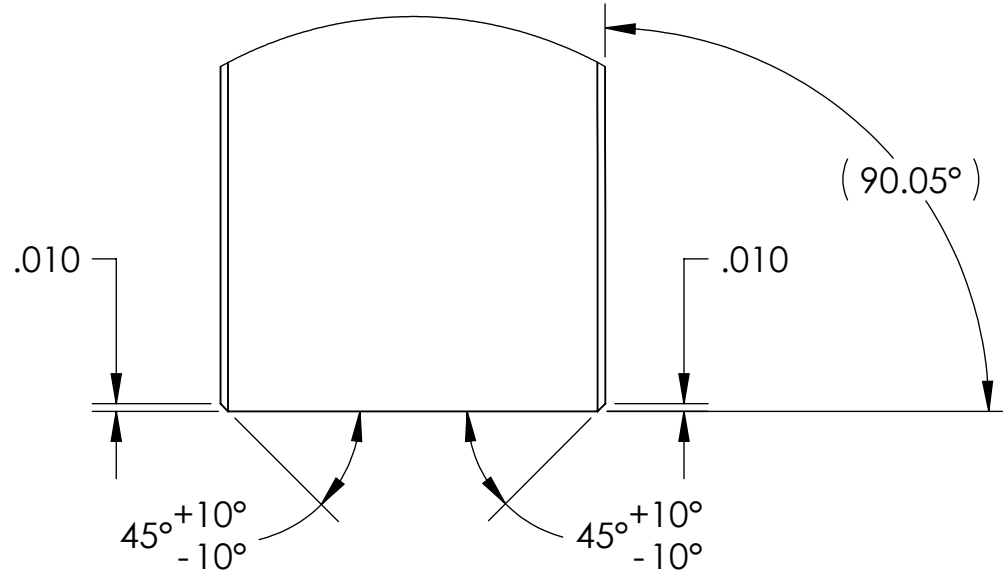
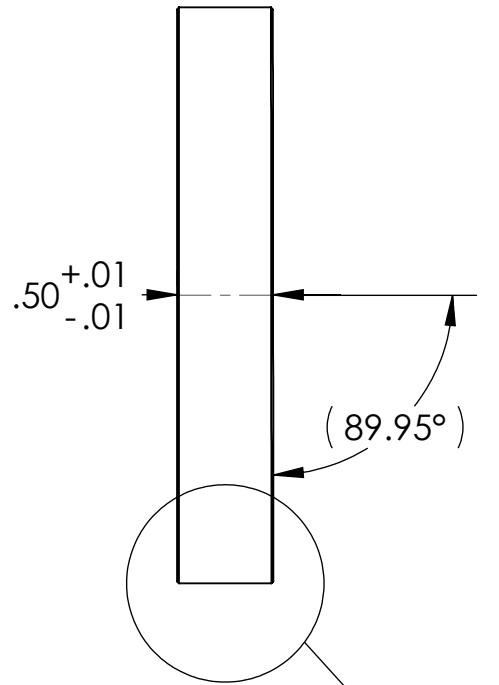
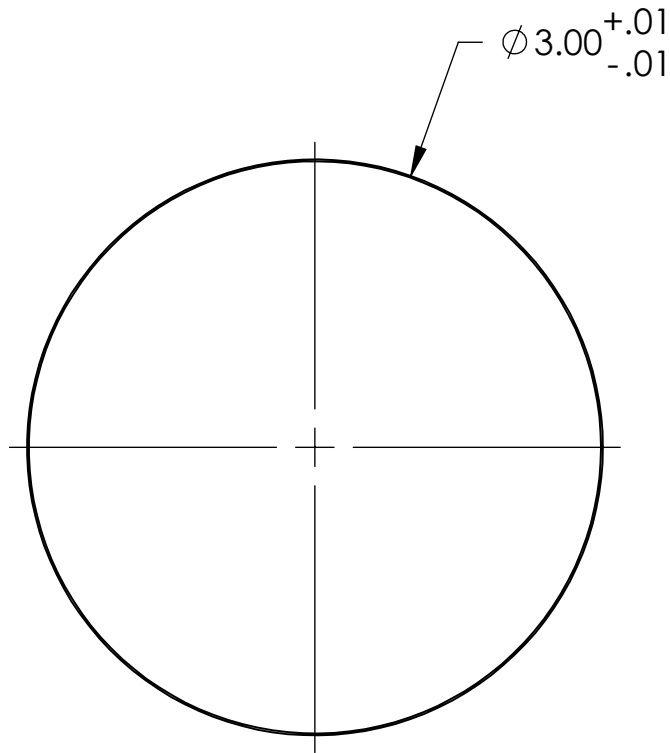
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NOTES CONTINUED:

5 SCRIBE, ENGRAVE, LASER MARK OR MECHANICALLY STAMP (NO DYES OR INKS) A UNIQUE THREE DIGIT SERIAL NUMBER & REVISION NUMBER ON EACH PART. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. BAG AND TAG PARTS WITH THEIR DRAWING PART NUMBER, REVISION, VARIANT OR "TYPE" (IF APPLICABLE), AND QUANTITY, IF PARTS ARE TOO SMALL TO SCRIBE. BAGGING AND TAGGING ALONE IS SUFFICIENT.  
 EXAMPLE (PART): 001-v1  
 EXAMPLE (TAG): DXXXXXX-VY, TYPE-XX, QTY: TBD

6 MATERIAL: OPTICAL GRADE "A" FUSED SILICA (HEREAUS INFRASIL 301-A, HERASIL 1-A, SUPRASIL 311-A, or SUPRASIL 312-A)  
 DIAMETER: 3.000", (+/-0.010)  
 CLEAR APERTURE: 2.75"  
 THICKNESS: 0.50" +/-0.010  
 WEDGE: 3min. +/- 2min  
 WAVEFRONT DISTORTION ACROSS ANY 20 mm DIAMETER WITHIN THE CLEAR APERTURE: < 1/10 LAMBDA @ 633 nm WAVELENGTH  
 EDGE CHAMFER: 0.010" @ 45 DEG +/-10DEG  
 SURFACE QUALITY: 10-5 LASER QUALITY

| REV. | DATE | DCN # | DRAWING TREE # |
|------|------|-------|----------------|
| -    | -    | -     | -              |
| -    | -    | -     | -              |
| -    | -    | -     | -              |



DETAIL A  
SCALE 4 : 1

D1100540\_dLIGO TCS\_ .5" THICK OPTICAL WINDOW, PART PDM REV: X-001, DRAWING PDM REV: X-001

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)

DIMENSIONS ARE IN INCHES  
 TOLERANCES:  
 .XX ± .01  
 .XXX ± .005  
 ANGULAR ± 0.5°

1. INTERPRET DRAWING PER ASME Y14.5-1994.  
 2. REMOVE ALL SHARP EDGES, .005-.015, FOR MACHINED PARTS. ROUND ALL EDGES APPROXIMATELY R.02 FOR SHEET METAL PARTS.  
 3. DO NOT SCALE FROM DRAWING.  
 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.

MATERIAL SEE NOTE 6 FINISH 6

**LIGO** CALIFORNIA INSTITUTE OF TECHNOLOGY  
 MASSACHUSETTS INSTITUTE OF TECHNOLOGY

SYSTEM ADVANCED LIGO SUB-SYSTEM AOS  
 NEXT ASSY D1003194

| PART NAME |             |             | aLIGO TCS .50" THICK OPTICAL WINDOW |              |
|-----------|-------------|-------------|-------------------------------------|--------------|
| DESIGNER  | A. LANGLEY  | 24 MAR 2011 | SIZE DWG. NO.                       | B D1100540   |
| DRAFTER   | A. LANGLEY  | 24 MAR 2011 | REV.                                |              |
| CHECKER   | M. JACOBSON | 29 MAR 2011 | SCALE: 1:1                          | SHEET 1 OF 1 |
| APPROVAL  | P. WILLEMS  | 30 MAR 2011 | PROJECTION:                         |              |

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