NOTES CONTINUED:

Ⓢ SCRIBE, ENGRAVE (A VIBRATORY TOOL MAY BE USED), LASER MARK OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR 'TYPE' IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12" HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. EXAMPLE: DXXXXXXX-VY, TYPE-XX, S/N XXX

6. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH, USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED. REFER TO LIGO SPECIFICATION E0900364
7. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH REFER TO LIGO SPECIFICATION E0900364
8. ALL MATERIAL IS TO BE VIRGIN MATERIAL (i.e. NO WELD REPAIRS, PLUGS OR RECYCLED MATERIAL). NO REPAIRS SHALL BE MADE UNLESS APPROVED IN ADVANCE, AND IN WRITING, BY LIGO LABORATORY. REFER TO LIGO SPECIFICATION E0900364

⑨ VACUUM SEALING SURFACE

10. BOTH SURFACES OF PLATE WILL BE USED IN ULTRA HIGH VACUUM SERVICE.
11. ALL SEALING SURFACES SHALL MEET THE FOLLOWING REQUIREMENTS:
    - A. BASIC FINISH IS 32 RMS, CONCENTRIC LAY.
    - B. THE FOLLOWING ARE NOT ALLOWED: GRINDING, HONING, LAPPING, POLISHING, BUFFING, SANDING, BLASTING, OR ANY OTHER PROCESS THAT DISTURBS THE CONCENTRIC MACHINING LAY, IMBEDS MATERIAL INTO THE SURFACE, OR SMEARS THE SURFACE.
12. USE ONLY TUNGSTEN CARBIDE TOOLING TO MACHINE THIS PART.
13. O-RING GROOVES AND VENT GROOVE MUST BE MACHINED DURING THE SAME SETUP
14. NO ABRASIVE STONES, CLOTHS, OR GRINDING WHEELS MAY BE USED.
15. NO OIL BASED OR HYDROCARBON BASED CUTTING FLUIDS MAY BE USED.
16. DO NOT ALLOW PART TO BE CONTAMINATED BY CARBON STEEL OR IRON CONTACT.
17. LEAK CHECK SEPTUM PLATE PER LIGO E0900404
18. PACKAGE, HANDLE, AND SHIP IN SUCH A MANNER AS TO MAINTAIN SPECIFIED SURFACE FINISHED AND FLATNESS TOLERANCES.

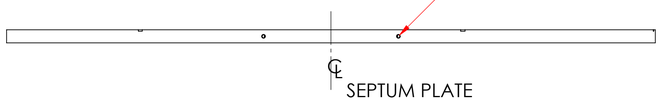
⑲ MEASURE SURFACE FINISH OF INDICATED VACUUM SEALING AREAS BEFORE AND AFTER REWORKING C1101241-v1, AND INCLUDE RESULTS AS PART OF AN INSPECTION REPORT.

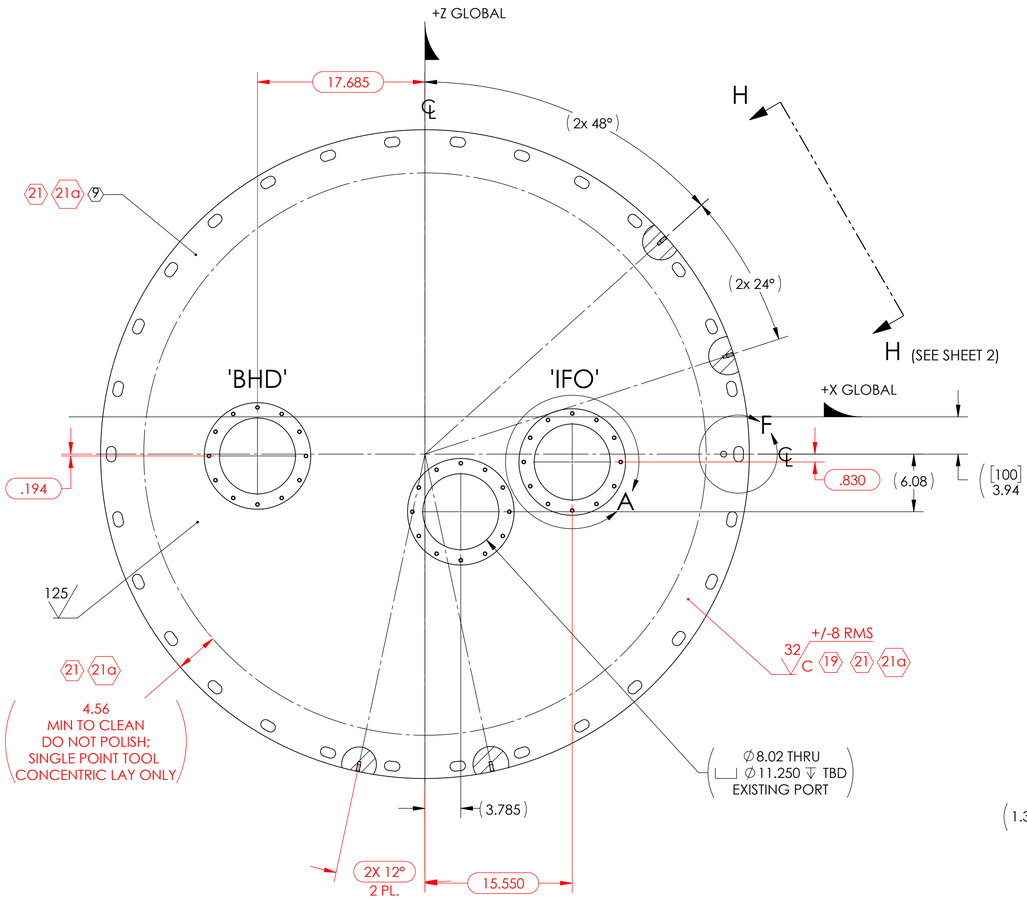
20. INSPECT ALL DIMENSIONS HIGHLIGHTED IN RED AND INCLUDE RESULTS AS PART OF AN INSPECTION REPORT.

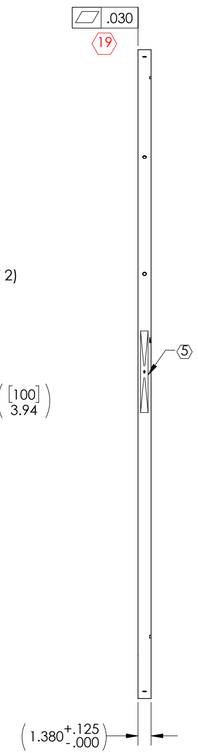
㉑ RESURFACE INDICATED OUTER FLAT SEAL ZONE.

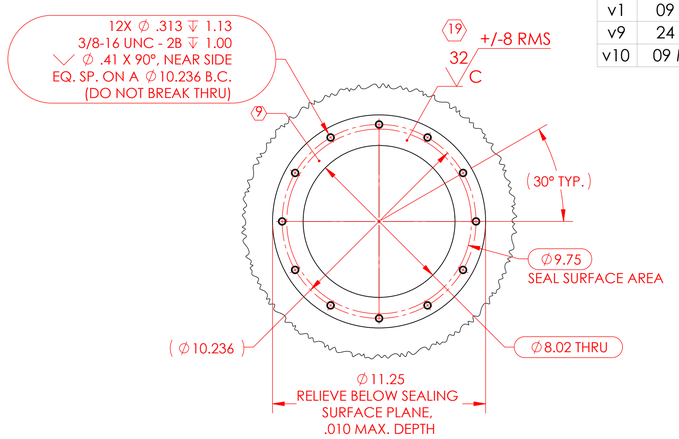
㉑a. RESTORE TO INDICATED SURFACE FINISH WITH MINIMAL MATERIAL REMOVAL.

REV.	DATE	DCN #	DRAWING TREE #
v1	09 APR 2019	-	-
v9	24 APR 2024	-	-
v10	09 MAY 2024	E2400150-x0	-

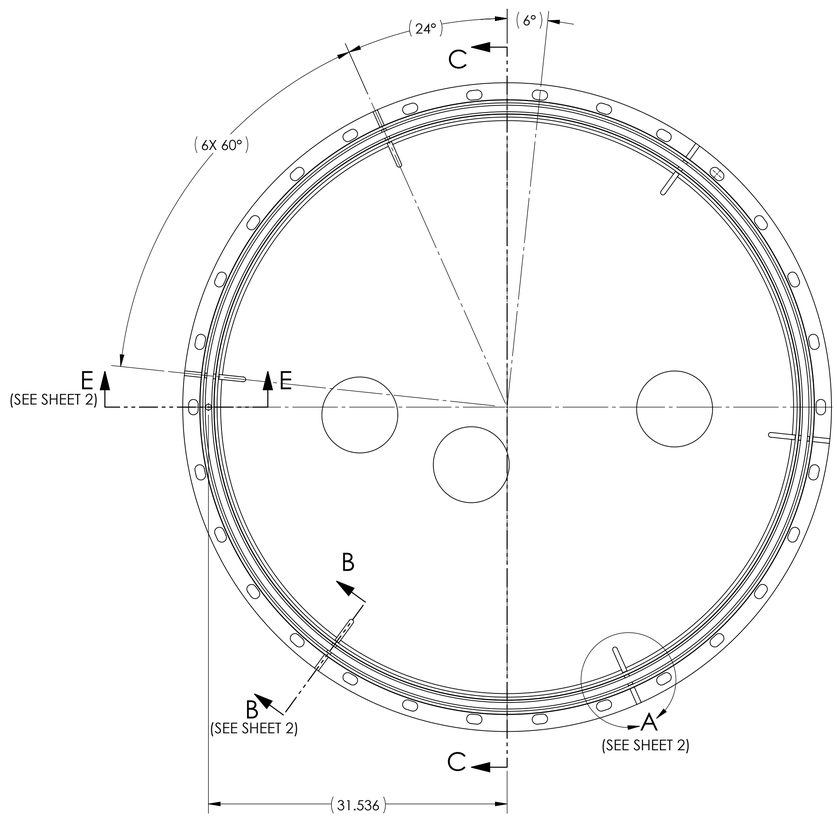


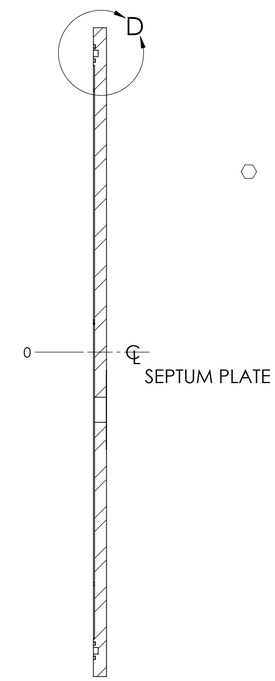




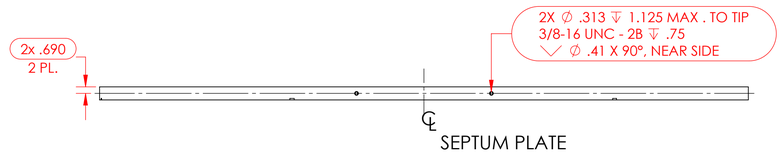


DETAIL A
SCALE 1 : 4
(TYP.)

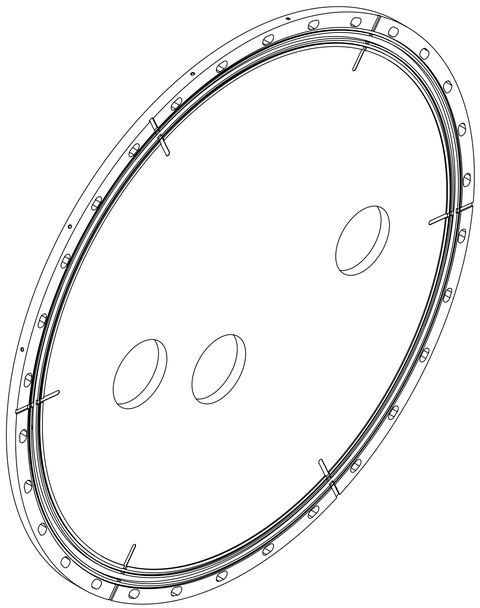




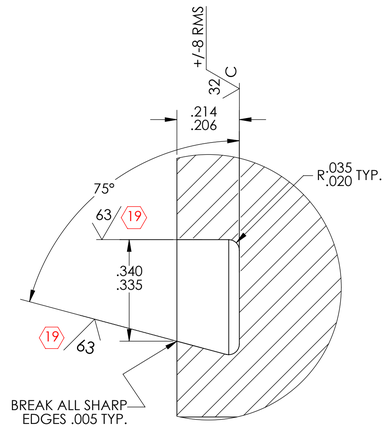
SECTION C-C



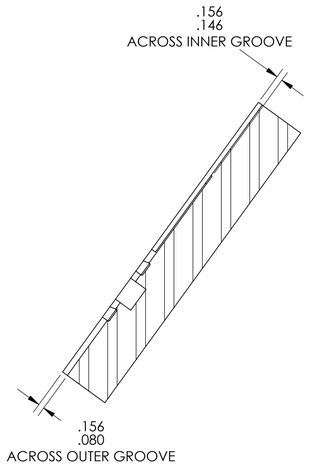
DIMENSIONS ARE IN INCHES TOLERANCES: .XX ± .03 .XXX ± .005 ANGULAR ± 0.5°	NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED) 1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, .005-.015. FOR MACHINED PARTS. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE. MATERIAL: MAKE FROM C1101241 (304 SSTL) — FINISH: AS NOTED	LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY SYSTEM: A+ — SUB-SYSTEM: VE NEXT ASSY: D0901812, D0901823	PART NAME: A+, VE, H1/L1 OUTPUT SEPTUM PLATE DESIGNER E.SANCHEZ 04 APR 2019 — SIZE D — DWG. NO. D1900111 — REV. v10 DRAFTER E.SANCHEZ 09 APR 2019 CHECKER SEE DCC SEE DCC APPROVAL SEE DCC SEE DCC — SCALE: 1:8 — PROJECTION: — SHEET 1 OF 2



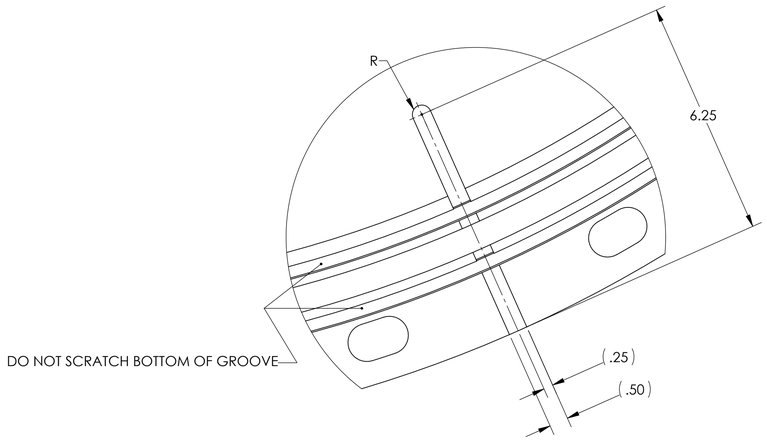
ISO VIEW



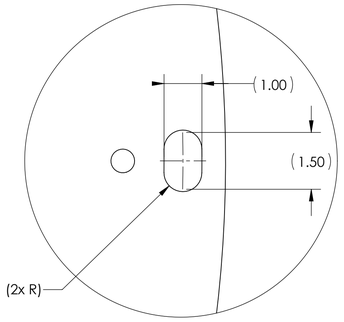
DETAIL J
SCALE 4 : 1
O-RING GROOVE DETAIL, SEE SHEET 1
(.275 CROSS SECTION)
2 PL.



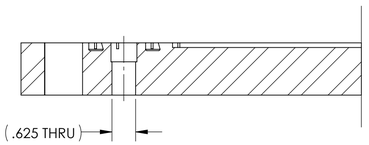
SECTION B-B
SCALE 1 : 2
(PUMP OUT GROOVE DETAIL, SEE SHEET 1)
6 PL.



DETAIL A
SCALE 1 : 2
6 PL.
(PUMP OUT GROOVE DETAIL, SEE SHEET 1)

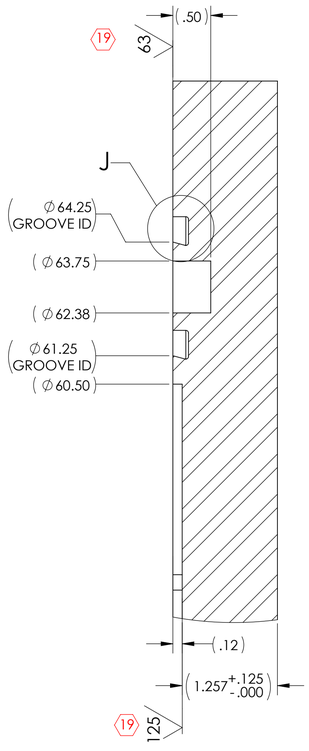


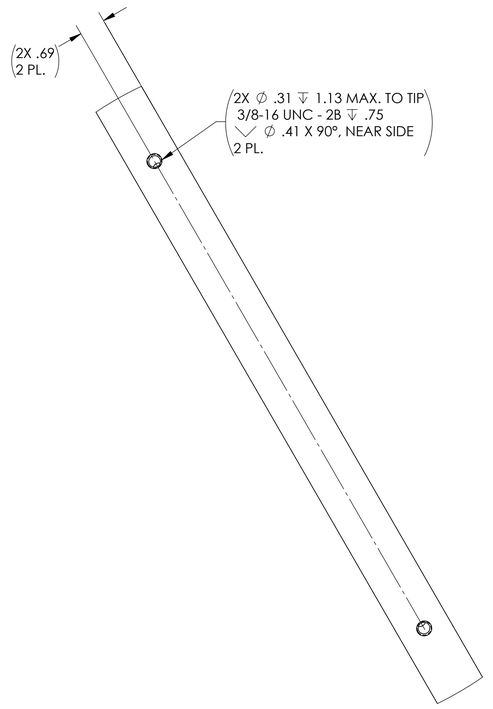
DETAIL F
SCALE 1 : 2
THRU
BOLT SLOT DETAIL
30X EQ. SP. 6° APART
ON A ⌀66.250 B.C.



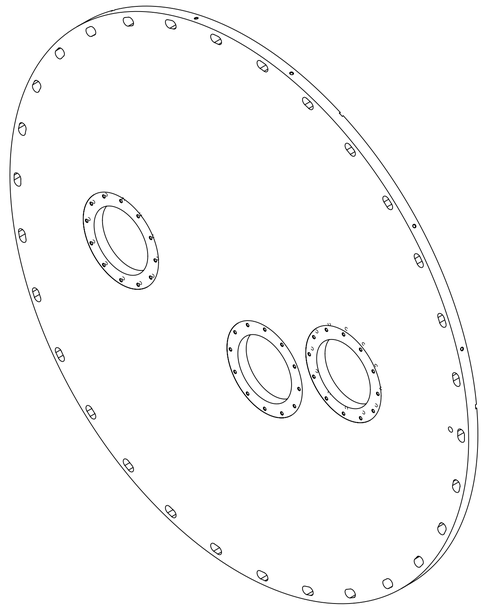
SECTION E-E
SCALE 1 : 2
(SEE SHEET 1)

DETAIL D
SCALE 1 : 2
(SEE SHEET 1)





VIEW H-H
SCALE 1 : 2
(SEE SHEET 1)



ISO VIEW

LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

SIZE	DWG. NO.	REV.
D	D1900111	v10
SCALE: 1:8	PROJECTION:	SHEET 2 OF 2

PART PDM VERSION: y-013
DWG PDM VERSION: y-019
D1900111 A+, VE, H1_L1 OUTPUT SEPTUM PLATE