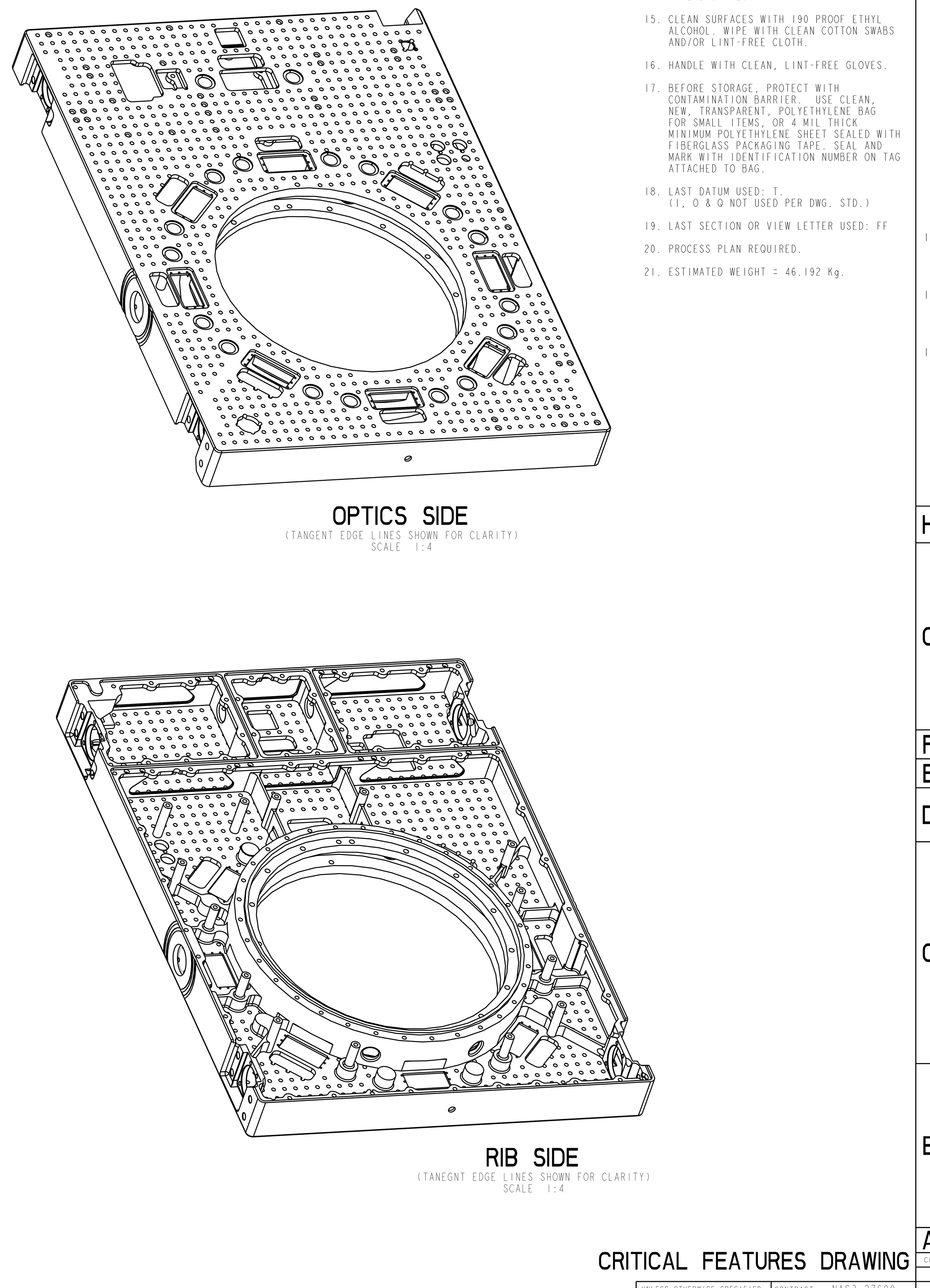

1. FOR ADDITIONAL VIEWS AND SECTIONS, SEE SHEET 2.
2. MATERIAL: 6061-T651 ALUMINUM PER FEDERAL SPEC QQ-A-250/11.
3. CERTIFICATE OF CONFORMANCE REQUIRED FOR MATERIAL.
4. 1.6 Ra ALL OVER PER ANSI/ASME B46.1.
5. ALL FILLET RADII TO BE 10-11 UNLESS OTHERWISE SPECIFIED.
6. ULTRASONIC INSPECT PER MIL-STD-2154, PRIOR TO FABRICATION. ACCEPTANCE PER SECTION 5.5.4., TABLE VI, CLASS LEVEL 2.
7. THERMAL STRESS RELIEVE AND TEMPER TO ORIGINAL MATERIAL CONDITION.
8. ELECTROLESS NICKEL COATING .0002-.0003 INCH PER MIL-C-26074E, CLASS 4, GRADE B. MASK ALL BLIND THREADS
9. ELECTROCHEMICAL ETCH DRAWING PART NUMBER 67212MEDH151 ON SPECIFIED SURFACE PER SAE AS478, METHOD 7A (ZONE G21).
10. INSTALL KEENSERT NO. KNML 12X1.75 FOR M12 X 1.75 FASTENER PER MANUFACTURER'S SPECIFICATIONS AFTER SURFACE TREATMENT PER NOTE 8.
11. INSTALL KEENSERT NO. KNML 8X1.25 FOR M8 X 1.25 FASTENER PER MANUFACTURER'S SPECIFICATIONS AFTER SURFACE TREATMENT PER NOTE 8.
12. INSTALL KEENSERT NO. KNML 6X1.0 FOR M6 X 1 FASTENER PER MANUFACTURER'S SPECIFICATIONS AFTER SURFACE TREATMENT PER NOTE 8.
13. INSTALL KEENSERT NO. KNCA0440J FOR .112-40 INCH FASTENER PER MANUFACTURER'S SPECIFICATIONS AFTER SURFACE TREATMENT PER NOTE 8.
14. INSTALL KEENSERT NO. KNB420J 1/64-1/32 INCH BELOW SURFACE WITH LOCTITE "RED" NUMBER 262. DO NOT USE THREAD STAKES.
15. CLEAN SURFACES WITH 190 PROOF ETHYL ALCOHOL. WIPE WITH CLEAN COTTON SWABS AND/OR LINT-FREE CLOTH.
16. HANDLE WITH CLEAN, LINT-FREE GLOVES.
17. BEFORE STORAGE, PROTECT WITH CONTAMINATION BARRIER. USE CLEAN, NEW, TRANSPARENT, POLYETHYLENE BAG FOR SMALL ITEMS, OR 4 MIL THICK MINIMUM POLYETHYLENE SHEET SEALED WITH FIBERGLASS PACKAGING TAPE. SEAL AND MARK WITH IDENTIFICATION NUMBER ON TAG ATTACHED TO BAG.
18. LAST DATUM USED: T. (I, O & Q NOT USED PER DWG. STD.)
19. LAST SECTION OR VIEW LETTER USED: FF
20. PROCESS PLAN REQUIRED.
21. ESTIMATED WEIGHT = 46.192 Kg.

CRITICAL FEATURES DRAWING

NOTE:

THIS REV. H DRAWING REFLECTS NEW CUTS TO BE MADE TO THE EXISTING TOOLED OPTICS BENCH. DUE TO PRO/E MODEL STRUCTURE, SOME ROUNDS WERE DELETED AND NOT REPLACED IN ORDER TO EXPEDITE THE DRAWING FOR FABRICATION RELEASE, AND THEREFORE ARE MISSING FROM THIS DRAWING. SINCE THE REV. H CHANGES REFLECT NEW CUTS, THE MISSING ROUNDS DO NOT AFFECT THE EXISTING OPTICS BENCH ENGINEERING MODEL.

-MJA, 06/30/00

CHG	ZONE	DESCRIPTION	APP/DATE
A	-	VARIOUS CHANGES	W. HOLT 10/25/98

REVISIONS

UNLESS OTHERWISE SPECIFIED:
1. ALL DIMENSIONING AND TOLERANCING PER ASME Y14.5M-1994
2. ALL DIMENSIONS ARE IN MILLIMETERS
3. BREAK EDGES: 0.2-0.5
4. LINEAR TOLERANCES:
   0.5-6 ±0.1
   OVER 6-30 ±0.2
   OVER 30-120 ±0.3
   OVER 120-315 ±0.5
   OVER 315-1000 ±0.8
   OVER 1000-2000 ±1.2
5. ANGULAR TOLERANCES: 0° 30′

CONTRACT NAS3-27600
CONTRACTOR ADF, INC.
TASK ORDER 0060
DRAFTER ADF/ W. HOLT
ENGINEER ANLX/ M. ROBBIE
DESIGNER ADF/ J. IMBURGIA

THIRD ANGLE PROJECTION

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN H. GLENN RESEARCH CENTER
LEWIS FIELD
CLEVELAND, OHIO

OPTIC BENCH ASSEMBLY
67212MELH150

151 OPTIC BENCH FRAME

PDM REL LEVEL: **RELEASE** PDM REVISION: -.21
PDM DATABASE: FCF
MODEL NAME: 67212MEDH151
PRIOR TO USE VERIFY THE INTENDED PURPOSE IN PDM ("FOR" ATTRIBUTE)

SIZE	DRAWING NUMBER	REV	BLDG	AREA
R3	67212MEDH151	H	333	-
SCALE: 1:2	INITIAL REL DATE 10/25/98	SHEET 1 OF 2	UNITS: mm	DISCIPLINE MECHANICAL

PRO/E VERSION: 18.0

1. SEE SHEET 01 FOR ADDITIONAL INFORMATION. GENERAL NOTES AND TOLERANCES.

NOTE:
THIS REV. H DRAWING REFLECTS NEW CUTS TO BE MADE TO THE EXISTING TOOLED OPTICS BENCH. DUE TO PRO/E MODEL STRUCTURE, SOME ROUNDS WERE DELETED AND NOT REPLACED IN ORDER TO EXPEDITE THE DRAWING FOR FABRICATION RELEASE AND THEREFORE ARE MISSING FROM THIS DRAWING. SINCE THE REV. H CHANGES REFLECT NEW CUTS, THE MISSING ROUNDS DO NOT AFFECT THE EXISTING OPTICS BENCH ENGINEERING MODEL.

-MJA, 06/30/00

CHG	ZONE	DESCRIPTION	APP/DATE
H	-	SEE SHEET 1	MJA 06/30/00
G	-	SEE SHEET 1	MJA 06/27/00
F		SHT. 1 ... SHT. 2 ...	MJA 05/23/00
E		SHT. 1 ... SHT. 2 ...	MJA 02/17/00

SIZE	DRAWING NUMBER	REV	AREA
R3	67212MEDH151	H	BLDG 33
SCALE: 1:2	INITIAL REL DATE 10/25/98	SHEET 2 OF 2	DISCIPLINE MECHANICAL

UNITS: mm
PRO/E VERSION: 18.0

R3 67212MEDH151

DRAWING NUMBER 67212MEDH151 REV H SHT 2