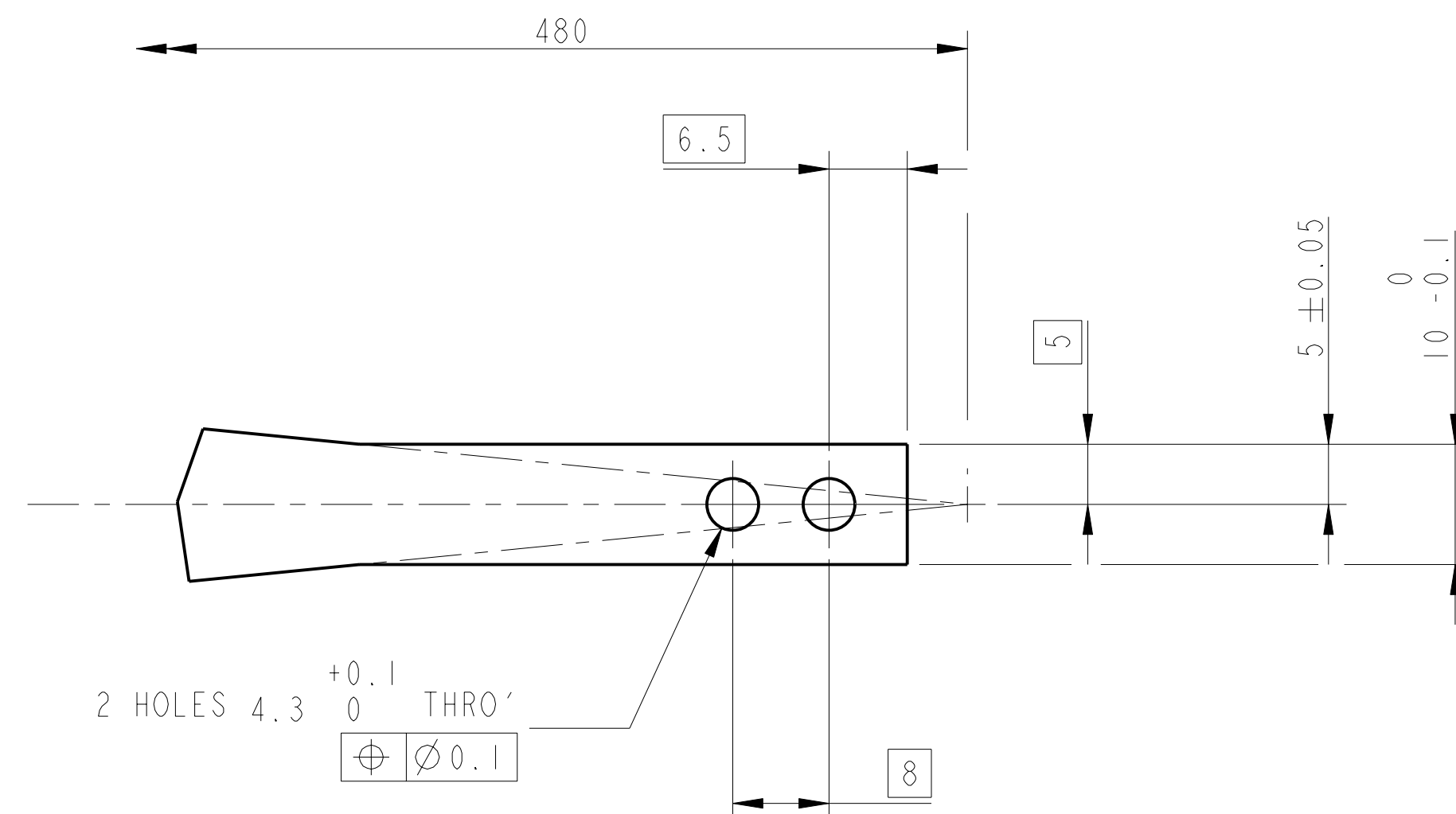
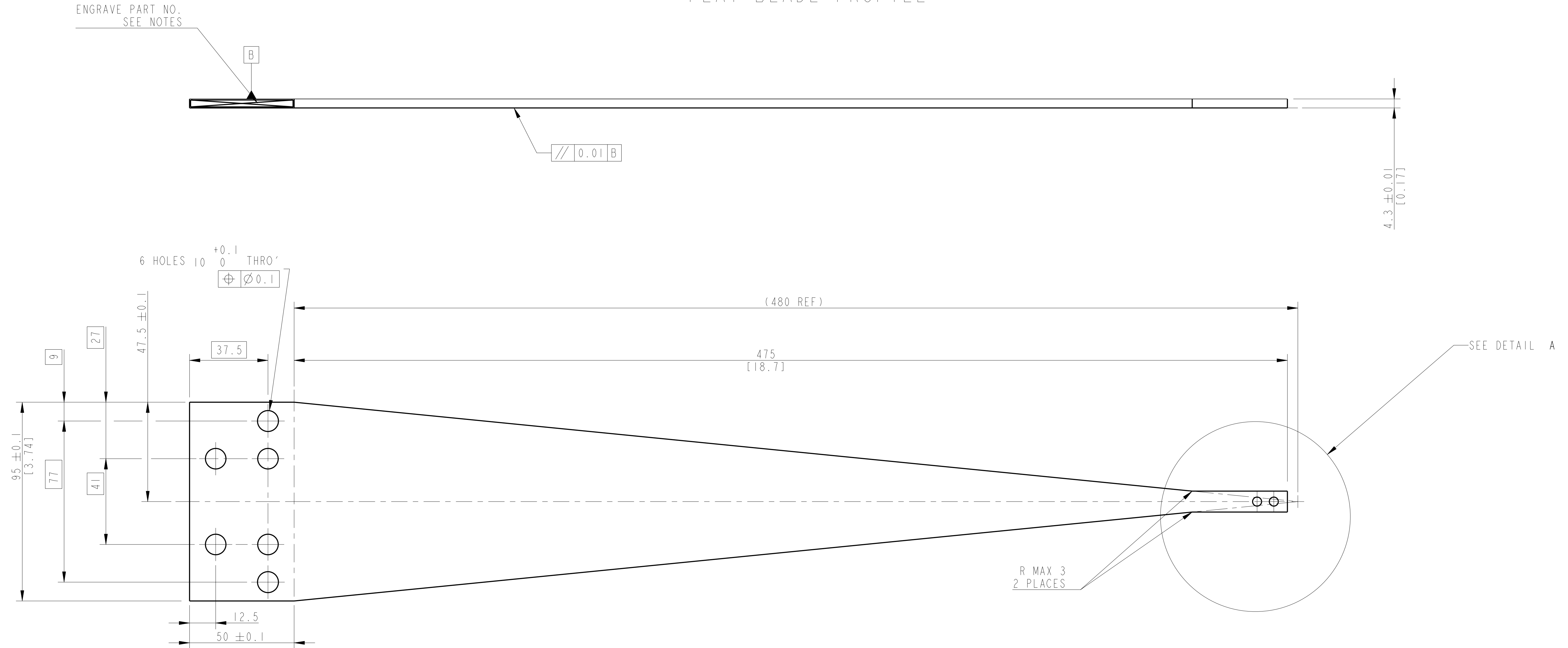


# FLAT BLADE PROFILE



DETAIL A  
SCALE 2:1

NOTES: (UNLESS OTHERWISE SPECIFIED)

- DO NOT SCALE FROM DRAWING.
- INTERPRET DIMENSIONS PER: ANSI 114.5 (R92)
- ALL MACHINING FLUIDS SHALL BE WATER SOLUBLE AND FREE OF SULFUR, CHLORINE AND SILICONE, SUCH AS CINCINNATI MILACRON'S CIMTECH 410 (STAINLESS STEEL).
- FABRICATE FROM SHEET MATERIAL; FORM RADIUS BY ROLLING.
- REMOVE ALL SHARP EDGES - R 0.02 MIN.
- SCRIBE, ENGRAVE OR STAMP DRAWING PART NUMBER ON NOTED SURFACE OF PART AND A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST PART AND PROCEED CONSECUTIVELY. USE "01" HIGH CHARACTERS. EXAMPLE: 000100-001. A VIBRATION TOOL MAY BE USED.
- AFTER PARTS ARE ROLLED TO RADIUS, HARDEN FOR HEAT TREATMENT AT 435 DEG C FOR 100 HOURS AND AIR COOL. PARTS MUST BE SUPPORTED WITH TOOLING DURING HEAT TREATMENT TO AVOID RADIUS CHANGE DUE TO SELF WEIGHT. TOOLING FOR HEAT TREATMENT MAY BE A "BIRE BACK" TYPE OF TOOL THAT WILL ALLOW THE PARTS TO BE MOUNTED ON THEIR SIDES. PARTS MAY BE ROLLED AGAIN AFTER HEAT TREATMENT TO ADJUST RADIUS TO SPECIFICATION.

DIMENSIONS ARE IN mm (INCHES)

TOLERANCES:

LINEAR 0.25 mm

ANGULAR  $\pm 0.25^\circ$

MATERIAL: MARAGING STEEL 250

FINISH: CLEAN AND DEGREASED

$\sqrt{\mu\text{m}}$  (LIN) Ra = 0.8

NAME	DATE
DRAWN	1 WILMOT 26/JUL/06
CHECKED	RJS 27/JUL/06
APPROVED	RJS 27/JUL/06

SYSTEM: ADVANCED LIGO

SUB-SYSTEM: SUS

NEXT ASSY: QUAD N-PTYPE TOP STAGE

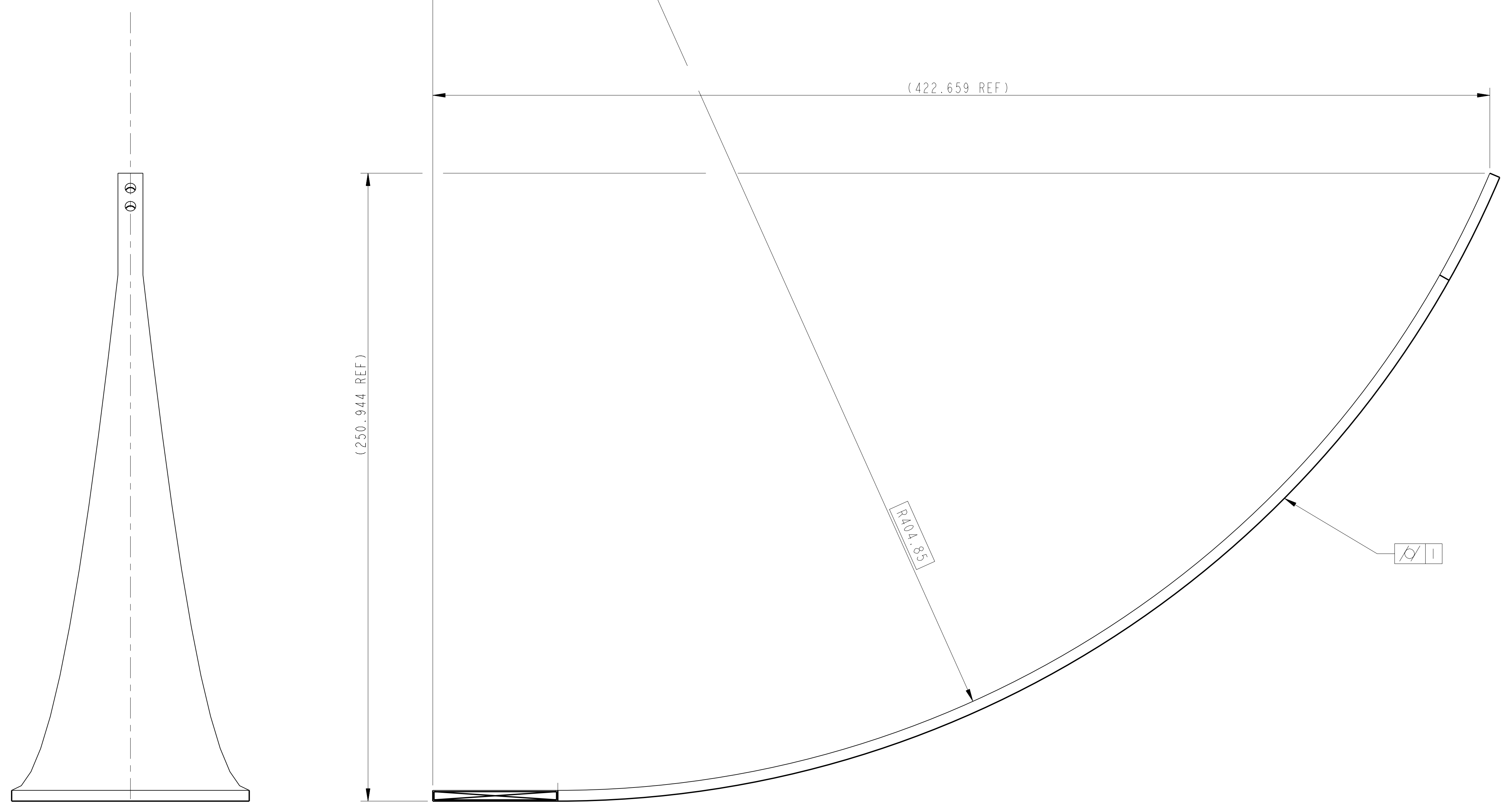
PART NAME: TOP STAGE BLADES

DRG. NO.: D060235

SCALE: 1:1 PROJECTION: SHEET 1 OF 2

INTERNAL NAME: D060235-A  
 FOR INTERNAL USE ONLY:  
 E=186Gpa  
 TOTAL SUSP MASS = 61.82KG  
 WIRE CLAMP OFFSET = 5.07 MM UP  
 BLADE BEND RAD CALCULATED BY FEA

FORMED BLADE SPRING



NOTES: (UNLESS OTHERWISE SPECIFIED)

- DO NOT SCALE FROM DRAWING.
- INTERPRET DIMENSIONS PER: ANSI Y14.5-1982
- ALL MACHINING FLUIDS SHALL BE WATER SOLUBLE AND FREE OF SULFUR, CHLORINE AND SILICONE, SUCH AS CINCINNATI MILACRON'S CIMTECH 410 (STAINLESS STEEL).
- FABRICATE FROM SHEET MATERIAL; FORM RADIUS BY ROLLING.
- REMOVE ALL SHARP EDGES; R.02 MIN.
- SCRIBE, ENGRAVE OR STAMP DRAWING PART NUMBER ON NOTED SURFACE OF PART AND A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST PART AND PROCEED CONSECUTIVELY. USE "01" HIGH CHARACTERS. EXAMPLE: 000100-001. A VIGNATION TOOL MAY BE USED.
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DIMENSIONS ARE IN mm (INCHES)

TOLERANCES:  
 LINEAR ±0.25 mm  
 ANGULAR ±0.25°

MATERIAL: MARAGING STEEL 250  
 Ra = 0.8

FINISH: CLEAN AND DEGREASED  
 Ra = 0.8

NAME	DATE
DRAWN	1 WLMOT 26/ JUL/04
CHECKED	RJS 27/ JUL/06
APPROVED	RJS 27/ JUL/06

DRG. NO. D060235

SCALE: 1:1 PROJECTION: SHEET: 2 OF 2

CALIFORNIA INSTITUTE OF TECHNOLOGY  
 MASSACHUSETTS INSTITUTE OF TECHNOLOGY  
 RUTHERFORD APPLIION LABORATORIES

SYSTEM: ADVANCED LIGO  
 SUB-SYSTEM: SUS  
 NEXT ASSY: TOP STAGE  
 PART NAME: TOP STAGE BLADES